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RESEARCH IN DRUG DEVELOPMENT AGAINST VIRAL DISEASES
OF MILITARY IMPORTANCE (BIOLOGICAL TESTING)

Annual Report

W.M. Shannon, L.E. Holland, G. Arnett, L.V. Brando,
A.D. Brazier, M.G. Hollingshead, J.B. Kahlon, G.C. Lavelle,
V. Peake, B.R. Toyer, L. Westbrook and G.J. Williams

December 15, 1987

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Supported by

U.S. ARMY MEDICAL RESEARCH AND DEVELOPMENT COMMAND
Fort Detrick, Frederick, Maryland 21701-5012

Contract No. DAMD17-86-C-6013

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Frederick, Maryland 21701-5012.

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Army position unless so designated by other authorized documents.

88 9 13 00 5

AD-3126 086

REPORT DOCUMENTATION PAGE

1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED			1b. RESTRICTIVE MARKINGS		
2a. SECURITY CLASSIFICATION AUTHORITY			3. DISTRIBUTION / AVAILABILITY OF REPORT Distribution <i>limited</i> to U.S. Government Agencies only: proprietary information, July 28, 1988		
2b. DECLASSIFICATION / DOWNGRADING SCHEDULE			5. MONITORING ORGANIZATION REPORT NUMBER(S) <i>Attn: SGRD-RMI-S</i>		
4. PERFORMING ORGANIZATION REPORT NUMBER(S)			7a. NAME OF MONITORING ORGANIZATION		
6a. NAME OF PERFORMING ORGANIZATION Southern Research Institute		6b. OFFICE SYMBOL (If applicable)	7b. ADDRESS (City, State, and ZIP Code)		
6c. ADDRESS (City, State, and ZIP Code) 2000 Ninth Avenue South P. O. Box 55305 Birmingham, AL 35255-5305			9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER Contract No. DAMD17-86-C-6013		
8a. NAME OF FUNDING / SPONSORING ORGANIZATION U.S. Army Medical Research & Development Command		8b. OFFICE SYMBOL (If applicable)	10. SOURCE OF FUNDING NUMBERS		
8c. ADDRESS (City, State, and ZIP Code) Fort Detrick, Frederick, Maryland 21701-5012			PROGRAM ELEMENT NO. 63763A	PROJECT NO. 3M263. 763D807	TASK NO. AD
			WORK UNIT ACCESSION NO. 056		
11. TITLE (Include Security Classification) RESEARCH IN DRUG DEVELOPMENT AGAINST VIPAL DISEASES OF MILITARY IMPORTANCE (BIOLOGICAL TESTING)					
12. PERSONAL AUTHOR(S) W.M. Shannon, L.E. Holland, G. Arnett, L.V. Brando, A.D. Brazier, V. Peake, M.G. Hollingshead, J.B. Kahlon, G.C. Lavelle, B.R. Tover, L. Westbrook, G.I. Williams					
13a. TYPE OF REPORT Annual Report		13b. TIME COVERED FROM 11/15/86 TO 11/14/87		14. DATE OF REPORT (Year, Month, Day) 15 December 1987	15. PAGE COUNT 391
16. SUPPLEMENTARY NOTATION					
17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)		
FIELD	GROUP	SUB-GROUP	Antiviral Drugs; RA I		
06	13		Exotic RNA Viruses		
06	15		AIDS; <i>AW/mgm</i>		
19. ABSTRACT (Continue on reverse if necessary and identify by block number) The purpose of this program is to evaluate the efficacy of candidate antiviral compounds against a spectrum of viruses of military importance. This program involves (a) primary testing of chemical compounds and natural products for antiviral efficacy <i>in vitro</i> using CPE-inhibition and plaque-reduction assays, (b) primary testing of compounds for antiviral efficacy <i>in vivo</i> in animal model systems, and (c) secondary evaluation of the active candidate antiviral compounds. The target viruses for <i>in vitro</i> testing are Vaccinia Virus (VV), Adenovirus (AD), Vesicular Stomatitis Virus (VSV), Punta Toro Virus (PT), Sandfly Fever Virus (SF), Yellow Fever Virus (YF), Venezuelan Equine Encephalomyelitis Virus (VEE), Japanese Encephalitis Virus (JE), Pichinde Virus (PIC), Hantaan Virus (HTN), Human Immunodeficiency Virus (HIV), and related murine, feline, and simian retroviruses. The current <i>in vivo</i> systems are Pichinde Virus infection of hamsters and Venezuelan Equine Encephalomyelitis Virus infection of mice. During this second year of the project all <i>in vitro</i> and <i>in vivo</i> screening systems became operational. Over 2800 compounds have been received for <i>in</i>					
20. DISTRIBUTION / AVAILABILITY OF ABSTRACT <input type="checkbox"/> UNCLASSIFIED UNLIMITED <input checked="" type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS			21. ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED		
22a. NAME OF RESPONSIBLE INDIVIDUAL Mary Frances Bostian			22b. TELEPHONE (Include Area Code) SGRD-RMI-S	22c. OFFICE SYMBOL 301-663-7325	

in vitro evaluation and over 8000 assays have been performed. Compounds have been identified in nearly all virus systems that have confirmed antiviral activity exceeding that of the various positive control compounds (Ribavirin, Selenazole, and 2',3'-dideoxycytidine). Many of these compounds represent potent and selective new antiviral agents. One compound (AVS-206), which showed broad-spectrum antiviral activity in the *in vitro* assays, has proven very effective in the *in vivo* treatment of hamsters infected with Pichinde Virus. This compound is as effective as Ribavirin in increasing survival following lethal virus challenge and it has the apparent advantage of being less toxic. A number of compounds were found to possess significant activity against Human Immunodeficiency Virus (HIV) *in vitro*. One compound (NSC-614846) had activity comparable to the positive control drug 2',3'-dideoxycytidine (ddC) in MT-2 cells and is being pursued as a candidate anti-AIDS drug by the NCI/NIH.

FOREWORD

Citations of commercial organizations and trade names in this report do not constitute an official Department of the Army endorsement or approval of the products or services of these organizations.

In conducting the research described in this report, the investigators adhered to the "Guide for the Care and Use of Laboratory Animals", DHEW Publication No. (NIH) 86-23, Revised 1985.

In conducting the research described in this report, the investigators adhered to all safety, security, and biocontainment requirements specified in the contract, including all U.S. Public Health Service biosafety guidelines contained in "Biosafety in Microbiological and Biomedical Laboratories". DHHS Publication No. (CDC) 86-23 (March 1985).



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TABLE OF CONTENTS

	<u>Page</u>
FOREWARD	1
1. INTRODUCTION	8
2. CURRENT SCOPE OF WORK	13
2.1 Task 1: In Vitro Antiviral Evaluations	13
2.2 Task 2: In Vivo Antiviral Evaluations	13
2.3 Task 3: Secondary Evaluations	14
3. EXPERIMENTAL METHODS	15
3.1 Test Compounds	15
3.1.1 Receipt, Cataloging and Storage	15
3.1.2 Determination of Solubilities	15
3.1.3 Compound Preparation for Testing	15
3.1.4 NCI Compounds	16
3.2 In Vitro Antiviral Screening: :DNA Viruses and Exotic RNA Viruses	16
3.2.1 Vaccinia Virus (VV)	18
3.2.2 Adenovirus Type 2 (AD)	19
3.2.3 Vesicular Stomatitis Virus (VSV)	19
3.2.4 Punta Toro Virus (PT)	20
3.2.5 Sandfly Fever Virus (SF)	21
3.2.6 Pichinde Virus (PIC)	22
3.2.7 Venezuelan Equine Encephalomyelitis Virus (VEE)	23
3.2.8 Yellow Fever Virus (YF)	23
3.2.9 Japanese Encephalitis Virus (JE)	23
3.2.10 Hantaan Virus (HTN)	24
3.3 In Vitro Antiviral Screening: Retroviruses	24
3.3.1 Primary Screening-HIV	24
3.3.1.1 Modified Broder assay	24
3.3.1.2 XTT assay	25
3.3.2 Confirmatory Tests	26
3.3.2.1 Reverse transcriptase assay	26
3.3.2.2 Immunofluorescence assay	27
3.3.2.3 HeLa-T4 ⁺ cell syncytial focus-inhibition assay	27
3.3.3 Secondary Evaluations	28
3.3.3.1 Feline leukemia virus - FAIDS variant (FeLV)	28
3.3.3.2 Simian retrovirus - SAIDS (SRV-2)	29
3.3.3.3 Murine AIDS (MAIDS)	29
3.3.3.4 SupTI assay	30
3.4 Antiviral Evaluations In Vivo	30
3.4.1 Acute Toxicity Determinations	30
3.4.2 Pichinde Virus	31
3.4.3 Venezuelan Equine Encephalomyelitis Virus	31

TABLE OF CONTENTS

	<u>Page</u>
3.5 Data Analysis and Processing	32
4. RESULTS	33
4.1 Antiviral Screening In Vitro: DNA Viruses and Exotic RNA Viruses	33
4.1.1 Vaccinia Virus (VV)	33
4.1.2 Adenovirus Type 2 (AD)	38
4.1.3 Vesicular Stomatitis Virus (VSV)	40
4.1.4 Punta Toro Virus	43
4.1.5 Sandfly Fever Virus	46
4.1.6 Pichinde Virus	47
4.1.7 Venezuelan Equine Encephalomyelitis Virus (VEE)	47
4.1.8 Yellow Fever Virus	51
4.1.9 Japanese Encephalitis Virus	53
4.1.10 Hantaan Virus (HTN)	53
4.2 Antiviral Screening In Vitro: Retroviruses	55
4.2.1 Primary Screening-HIV	55
4.2.1.1 USAMRIID compounds	55
4.2.1.2 NCI compounds	60
4.2.2 Confirmatory Evaluations	68
4.2.2.1 Reverse transcriptase assays	68
4.2.2.2 Immunofluorescence assay	72
4.2.2.3 HeLa-T4 ⁺ syncytial focus-inhibition assay	74
4.2.3 Secondary Evaluations	75
4.2.3.1 Feline leukemia virus - FAIDS variant	75
4.2.3.2 Simian retrovirus - SAIDS	75
4.2.3.3 Murine AIDS (MAIDS)	76
4.2.3.4 SupT1 assays	76
4.3 Antiviral Evaluations In Vivo	79
4.3.1 Pichinde Virus in MHA Hamsters	79
4.3.1.1 Model characterization	79
4.3.1.2 Antiviral evaluations	82
4.3.2 Venezuelan Equine Encephalomyelitis Virus in CD-1 Mice	89
4.3.2.1 Model characterization	89
4.3.2.2 Antiviral evaluations	91
5. DISCUSSION	97
6. ACKNOWLEDGMENTS	102
7. LITERATURE CITED	103
APPENDICES	105

TABLE OF CONTENTS

	<u>Page</u>
APPENDICES (Cont'd.)	
A - Complete Listing of Active Compounds	106
B - Cumulative Summary of <i>In Vitro</i> Antiviral Test Results (Classic Viruses)	123
C - Cumulative Summary of <i>In Vitro</i> Antiviral Test Results (HIV)	348
D - Cumulative Summary of <i>In Vivo</i> Antiviral Test Results	386
DISTRIBUTION LIST	391

LIST OF TABLES

	<u>Page</u>
Table 1	In Vitro Antiviral Screening Models 17
Table 2	Primary In Vitro Antiviral Screen: Target Viruses and Numbers of Compounds Tested Through November 14, 1987 34
Table 3	Compounds Active against Vaccinia Virus 35
Table 4	Confirmatory Assays for Compounds Active against Vaccinia Virus 36
Table 5	Compounds Active Against Adenovirus Type 2 38
Table 6	Confirmatory Assays for Compounds Active Against Adenovirus Type 2 39
Table 7	Compounds Active Against Vesicular Stomatitis Virus 40
Table 8	Confirmatory Assays for Compounds Active Against Vesicular Stomatitis Virus 41
Table 9	Plaque Reduction Assays for Compounds Active Against Vesicular Stomatitis Virus 41
Table 10	Compounds Active Against Punta Toro Virus 43
Table 11	Confirmatory Assays for Compounds Active Against Punta Toro Virus 44
Table 12	Plaque Reduction Assays for Compounds Active Against Punta Toro Virus 46
Table 13	Compounds Active Against Sandfly Fever Virus 46
Table 14	Confirmatory Assays for Compounds Active Against Sandfly Fever Virus 48
Table 15	Compounds Active Against Pichinde Virus 49
Table 16	Compounds Active Against Venezuelan Equine Encephalomyelitis Virus 51
Table 17	Compounds Active Against Yellow Fever Virus 51
Table 18	Confirmatory Assays for Compounds Active Against Yellow Fever Virus 52
Table 19	Compounds Active Against Japanese Encephalitis Virus 54
Table 20	Confirmatory Assays for Compounds Active Against Japanese Encephalitis Virus 54

LIST OF TABLES (Cont'd.)

	<u>Page</u>	
Table 21	Primary In Vitro Antiviral Screen: Target Viruses and Number of Compounds Tested As Of October 31, 1987.	56
Table 22	Compounds Active Against Human Immunodeficiency Virus	57
Table 23	Confirmatory Assays for Compounds Active Against Human Immunodeficiency Virus	58
Table 24	Retesting of AVS-999 Samples	60
Table 25	Replicate Reverse Transcriptase Preparations	72
Table 26	Secondary Testing of AVS Compounds Showing Confirmed Activity Against HIV in ATH8 Cell Assays	73
Table 27	Anti-HIV Activity of Various AVS-999 Samples In Vitro	74
Table 28	Compounds Active Against Feline Leukemia Virus FAIDS Variant	75
Table 29	Primary In Vivo Antiviral Screen: Target Viruses and Numbers of Compounds Tested Through November 14, 1987	79
Table 30	Ribavirin vs. Plaque-Purified Pichinde AN 4763 in MHA Strain Hamsters	80
Table 31	Effects of Saline Treatment on Pichinde Lethality	81
Table 32	Effect of Ribavirin on Pichinde Virus Infections at Selected Challenge Levels in MHA Hamsters	83
Table 33	Compounds Received for In Vivo Testing Against Pichinde	84
Table 34	Antiviral Efficacy of AVS-206	85
Table 35	Results of Retesting AVS-206	86
Table 36	Antiviral Efficacy of AVS-1046	87
Table 37	Cumulative Data Obtained in All VEE Titration Experiments	90
Table 38	Compounds Received for In Vivo Evaluation Against VEE	91
Table 39	Therapeutic Antiviral Efficacy of AVS-360	92
Table 40	Prophylactic Antiviral Efficacy of AVS-360	93
Table 41	Antiviral Efficacy of AVS-206 and AVS-646	94
Table 42	Prophylactic Antiviral Efficacy of AVS-360 and AVS-646	96
Table 43	Antiviral Activity of Human Recombinant Interferon Gamma (AVS-2350)	99

LIST OF FIGURES

	<u>Page</u>
Figure 1. Plaque reduction assays with Vesicular Stomatitis Virus	42
Figure 2. Plaque reduction assays with Punta Toro Virus.	45
Figure 3. Plaque reduction assays with Pichinde Virus	50
Figure 4. Effects of serum and FMS on background optical density readings in the XTT assay	62
Figure 5. Effect of incubation time on the background optical density readings due to medium in the XTT assay	63
Figure 6. Production of infectious Human Immunodeficiency Virus and viral p24 antigen from acutely infected H9 cells	64
Figure 7. Results from an XTT assay of the antiviral activity of 2',3'-dideoxycytidine against HIV in ATH8 cells.	65
Figure 8. Results from an XTT assay of the antiviral activity of NSC-614846 against HIV in MT-2 cells.	66
Figure 9. Example data sheet from an XTT assay.	67
Figure 10. Effect of pH on enzyme activity	69
Figure 11. Effect of MgCl ₂ concentration on enzyme activity	70
Figure 12. Effect of KCl concentration on enzyme activity	71
Figure 13. Antiviral activity of 2',3'-dideoxycytidine in the in vitro murine retrovirus assay	77
Figure 14. Antiviral activity of Ribavirin in the in vitro murine retrovirus assay	78
Figure 15. Antiviral efficacy of AVS-206 against Pichinde Virus in vivo	88
Figure 16. Percentage of compounds tested having antiviral activity for each primary in vitro screen	101

1. INTRODUCTION

This is the Second Annual Progress Report on SRI Project No. 5975, Contract No. DAMD17-86-C-6013. It covers the progress of the research program during the report period from November 15, 1986 to November 14, 1987.

The goal of this program is to implement testing systems in which to evaluate the efficacy of candidate antiviral compounds against a spectrum of viruses of military importance. The program consists of three major task areas: a) primary testing of chemical compounds and natural products for antiviral efficacy *in vitro*, b) primary testing of chemical compounds and immunopotentiators for antiviral efficacy *in vivo*, and c) secondary evaluation of compounds found active in the primary *in vitro* and *in vivo* screens. In addition, the basic antiviral screening program has been modified to provide for the primary *in vitro* testing of chemical compounds and biological response modifiers for antiviral efficacy against human immunodeficiency virus (HIV), the causative agent of acquired immunodeficiency syndrome (AIDS).

One of the primary missions of the U.S. Army Medical Research and Development Command is to perform studies on the pathogenesis, diagnosis, epidemiology, prophylaxis, and treatment of infectious diseases of military importance. The Army's infectious disease research program, conducted by the U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID) at Fort Detrick, is primarily concerned with medical defense against (a) naturally-occurring infectious diseases that could seriously interrupt U.S. military operations such as troop mobilization and deployment and (b) the threat of infectious diseases or toxic effects caused by the potential field use of biological warfare (BW) agents, either conventional BW agents or altered agents, by an unfriendly force.

The U.S. Army has a recognized need for new chemical compounds that will be useful as prophylactic or therapeutic antiviral drugs to treat U.S. military personnel who are at risk of exposure to, or who might become infected with, naturally-occurring viruses or altered viruses for which there exists no effective protection or therapy at the present time. The development of selective antiviral drugs for use in the successful treatment of infections with certain exotic RNA viruses (togaviruses, bunyaviruses, arenaviruses, rhabdoviruses, and other, unclassified RNA viruses) is of particular importance to the Army because there are no other research efforts being conducted, either by the government or by the private sector, which are directed toward the control of these virus diseases of military relevance.

In 1973, USAMRIID initiated a research and development program to identify and to pursue new compounds with activity against these exotic RNA viruses. Approximately 1500 compounds have already been screened *in vitro* for selective antiviral effects against these target viruses and a number of the compounds which were found active in cell culture have been evaluated for antiviral efficacy *in vivo*. Several of these compounds (e.g., Ribavirin, Selenazole, and Pyrazofurin) have been extensively tested for efficacy against lethal RNA virus infections in various animal model systems at USAMRIID. To date, the most promising antiviral drug with demonstrated, broad-spectrum activity against these viruses of military importance, both *in vitro* and *in vivo*, appears to be Ribavirin, its prodrug derivatives, and its carboxamide derivative (AVS-206). Ribavirin has been evaluated in humans infected with Sandfly Fever (SF) Virus, Lassa fever virus, and Korean Hemorrhagic Fever (KHF) virus and has demonstrated marked clinical efficacy against these particular virus infections. This drug will be further developed for general use in military personnel. There is a real need, however, for more potent and more selective antiviral drugs to combat these virus diseases which represent serious threats throughout the world.

Troops in the field are threatened not only by infectious diseases of natural origin, but also by the possibility of BW attack. The commercial development of antiviral drugs for the treatment of the more common respiratory virus, enteric virus, and herpesvirus infections may not solve the problems which are unique to the Armed Forces. These potential problems of encountering exotic viruses and BW agents will not be sufficiently addressed by depending solely on the possibility that antiviral drugs originally developed for the treatment of acute respiratory diseases, enterovirus infections, and herpesvirus infections might also be useful in the treatment of these virus diseases of military relevance. A more direct approach, and one which is clearly indicated, is to focus on antiviral drug development efforts designed to attach these particular virus disease threats that are unique to the Armed Forces.

The U.S. Army Medical Research Institute of Infectious Diseases has, for a number of years, been involved in conducting a unique and ambitious antiviral drug research and development program, primarily directed toward the chemical control of exotic RNA virus infections of military importance. Potential antiviral agents have been synthesized and evaluated against a number of target viruses both *in vitro* and *in vivo*. Program emphasis is currently on the development of antivirals for use in the treatment of infections with alphaviruses, flaviviruses, bunyaviruses, arenaviruses, and other viruses which are capable of eroding combat strength in troops deployed in overseas areas. In addition, current efforts are also being directed toward the development of antivirals for use in the treatment of AIDS through an Inter-Agency Agreement with the National Institutes of Health (NIH).

Members of the Togaviridae and Flaviviridae families (alphaviruses and flaviviruses) are capable of producing serious hemorrhagic or encephalitic diseases in humans. Infections with alphaviruses [Eastern equine encephalomyelitis (EEE), Western equine encephalitis (WEE), and Venezuelan equine encephalitis (VEE)] have occurred in epidemic proportions in the Americas. Chikungunya and O'nyong-nyong viruses also continue to cause epidemic disease on the African continent. The flaviviruses include several members which cause significant disease in humans. Dengue viruses types 1-4 are prevalent causes of acute illness in the tropics and subtropics of the world. Available vaccines are inadequate to control these infections effectively. Other members such as St. Louis encephalitis virus, Japanese B Encephalitis (JE) virus, and West Nile encephalitis virus cause mild to severe encephalitis diseases in humans. The tick-borne encephalitis virus group, represented by Russian Spring-Summer Encephalitis Virus, has caused widespread encephalitic disease in the U.S.S.R. and Northern Europe with high mortality rates. Yellow Fever (YF), in either the urban or jungle form, continues to be a threat, although the use of the 17-D vaccine is quite effective as a prophylactic measure against this disease. The Army's program is interested in controlling infections caused by the dengue viruses, Japanese encephalitis virus, Russian Spring-Summer encephalitis virus, Yellow Fever virus, and West Nile encephalitis virus.

A number of bunyaviruses have caused epidemic disease in many areas of the world: Rift Valley Fever virus was responsible for a major epizootic in Egypt in 1977-79 with considerable losses in domestic animals (sheep and cattle) and significant mortality among those humans infected with the virus. Sandfly fever virus has also been recognized as an important cause of epidemics in the Mediterranean area, in the Middle East, and in Central Europe. Oropouche, La Crosse, and California encephalitis viruses have all caused significant disease in the Americas. Oropouche virus, for example, has been associated with a number of large human epidemics in Brazil over the past twenty years. Hantaan virus, the causative agent of Korean hemorrhagic fever, causes appreciable mortality and is widely distributed in Asia. It has only recently been shown to belong to the Bunyaviridae family. Of the

Bunyaviridae family, the USAMRIID program has initiated studies with Sandfly fever virus, Rift Valley fever virus, Korean hemorrhagic fever virus, and Punta Toro virus.

Of the Arenaviridae family, current interest includes Lassa fever virus, an agent which causes significant lethal disease among infected humans in Africa, especially in Sierra Leone. Other arenaviruses under current investigation include Junin and Machupo viruses, the causative agents of Argentine hemorrhagic fever and Bolivian hemorrhagic fever, respectively. These agents are found endemic in wide areas of South America. Pichinde (PIC) virus has been used in antiviral studies as a representative of this important family of viruses. Vesicular stomatitis virus is currently employed as a representative of the Rhabdoviridae family.

Other viruses which cause sporadic but severe hemorrhagic fever in Africa are Marburg and Ebola viruses. These two closely-related agents have been placed in a new family (Filoviridae).

The above viruses are those which might be encountered in exotic troop locations and against which troops would not be expected to have any pre-existing immunity. With few exceptions, specific vaccines do not exist for these agents and some of the agents encountered may be poorly classified or may even be unclassified viruses which have not been seen previously. The antiviral chemoprophylaxis/chemotherapy approach may be the best modality to defend against this threat at the present time.

Another recurring problem with naturally-occurring virus infections exists in military boot camps where new recruits are assembled. These troops often develop infections with adenoviruses, influenza viruses, and parainfluenza viruses, sometimes in epidemic proportions. Infections with the adenoviruses have been a distinct military problem for years and multivalent vaccines have been prepared for use in new recruits. Nevertheless, an effective antiviral drug for treatment of adenovirus infections would be quite useful and therefore this virus group is also a target for antiviral chemotherapy in the Army's program.

A number of naturally-occurring viruses could be developed by an adversary into potent biological weapons for use in the field against U.S. forces. Many of the exotic RNA viruses are also potential BW agents, since their dissemination in an area where they are already indigenous could be employed as a means of disguising the source of the infection. In addition, other agents such as smallpox virus could be used very effectively against a susceptible civilian population prior to and during military operations to disrupt logistics and support activities and to create panic and chaos. The threat of BW attack poses some of the same problems as those to be addressed in the defense against naturally-occurring virus infections. Again, a broad-spectrum antiviral drug with selective activity against the RNA viruses could be the only real line of defense against such attack with those particular type of agents. The vaccine approach will only be effective in affording protection against a very limited group of these agents which number in the hundreds of different antigenic types.

With the advances made in the field of molecular genetics, it is now technically possible to genetically engineer altered viruses with enhanced virulence, communicability, drug resistance, and overall threat potential. An example of such misuse of advanced biotechnology would be the insertion of genes for highly toxic peptides such as snake venom toxins, potent bacterial toxins, or other low molecular weight toxins of military importance into the genome of a highly communicable virus such as influenza. The feasibility of inserting foreign genes into vaccinia virus and obtaining expression of those genes in the host cell has already been demonstrated. Recombinant DNA technology has made it possible to insert and express

heterologous genes in a variety of different viruses. Effective defense against possible altered viruses used as BW agents may well depend upon the development of antiviral drugs active against the vector viruses.

In recent years, the U.S. Armed Forces has become interested in participating in the national effort to develop selective antiviral drugs for use in the treatment of AIDS. Compounds submitted to USAMRIID from various sources and compounds submitted to SRI from the National Cancer Institute (NCI) are therefore being evaluated for their ability to selectively inhibit the infectivity and cytopathic effect of human immunodeficiency virus (HIV), also referred to as human T-lymphotropic virus type III/lymphadenopathy-associated virus (HTLV-III/LAV), using *in vitro* assay procedures which have been described previously.

The Department of Antiviral Studies at USAMRIID is responsible for the acquisition, identification, and development of potential new antiviral drugs which are effective against viruses of military relevance and which might be useful in the treatment of AIDS. The program is therefore, broad-based and involves the synthesis, primary and secondary testing, and further characterization of novel antiviral compounds with regard to their possible biochemical mechanisms of action, pharmacokinetics, metabolism, optimal formulation, optimal combination with other drugs, and safety in animal model systems. The Department also directs studies in support of IND applications to the FDA for clinical testing of active antiviral agents for use in man.

Since the establishment of its antiviral testing program, the Department of Antiviral Studies, USAMRIID, has evaluated approximately 3,000 compounds in its primary *in vitro* screen. Fewer compounds have been evaluated *in vivo*. Selenazole was reported to have broad-spectrum activity against the exotic RNA viruses *in vitro* and is significantly more potent than Ribavirin against the togaviruses (VEE, YF, JE), bunyaviruses (RVF, SF, KHF), and arenaviruses (PIC) *in vitro*. The activity of this compound against YF virus is most impressive with an ED₅₀ of 0.005 µg/ml in cell culture. The evaluation of Selenazole for therapeutic antiviral efficacy *in vivo*, however, yielded disappointing results and pharmacological problems may be responsible for the lack of efficacy in animal model systems. Ribavirin, on the other hand, has been shown in laboratory animal models to have significant antiviral efficacy against the bunyaviruses (RFV, Punta Toro and KHF) and the arenaviruses (PIC, Junin, Machupo, and Lassa Fever). Clinical trials with Ribavirin in patients with Lassa Fever virus or Hantavirus infections have yielded good results.

Ribavirin has also been shown to be effective in the treatment of Sandfly fever virus in human volunteers. Good progress has been made toward developing this particular antiviral drug for general clinical use by the Army, but new agents with higher potency and selectivity against the exotic RNA viruses will hopefully be identified in the expanded USAMRIID antiviral program. Because of the lag time in diagnosing viral disease, treatment with broad-spectrum antiviral agents offers the best hope to successfully defend against both naturally-occurring disease and against possible BW agents in the field. It is unlikely, however, that a single drug will be found that is effective against all of these exotic RNA virus infections, so additional antiviral agents must be developed. There is also a need to explore the efficacy of immunopotentiators, biological response modifiers, interferons, combination chemotherapy, and new approaches to drug delivery to enhance the antiviral efficacy of these agents.

The present contract at Southern Research Institute was established to enable USAMRIID to evaluate approximately 1,500 compounds per year for efficacy against 11 different target viruses in a primary *in vitro* screen, 96 compounds per year for *in vivo*

efficacy against a representative togavirus and arenavirus in appropriate animal model systems, and approximately 5 compounds per year in detailed *in vivo* studies. The basic contract also includes secondary testing studies with candidate antiviral agents that demonstrate promising activity both *in vitro* and *in vivo*. This report summarizes our progress in implementing the research program and includes summaries of antiviral test data collected up to November 15, 1987.

2. CURRENT SCOPE OF WORK

This section describes the research objectives and the scope of work for each of the three main tasks being performed by Southern Research Institute (SRI) on this contract. These tasks are: (a) Primary testing of compounds for antiviral efficacy *in vitro*, (b) Primary testing of compounds and immunopotentiators for antiviral efficacy *in vivo*, and (c) Secondary testing of compounds found active in primary testing.

2.1 Task 1: In Vitro Antiviral Evaluations

SRI is conducting the primary screening of chemical compounds which are furnished by the Department of Antiviral Studies, USAMRIID, through its repository contractor (Technassociates, Inc., Ijamsville, MD) for antiviral efficacy in cell culture against representative viruses from the Togaviridae, Flaviviridae, Bunyaviridae, Arenaviridae, Rhabdoviridae, Poxviridae, Adenoviridae, and Retroviridae families. The test viruses consist of the following agents: (1) Venezuelan Equine Encephalomyelitis (VEE) virus, (2) Yellow Fever (YF) Virus, (3) Japanese Encephalitis (JE) Virus, (4) Sandfly Fever (SF) Virus, (5) Punta Toro (PT) Virus, (6) Hantaan (HTN) Virus, (7) Pichinde (PIC) Virus, (8) Vesicular Stomatitis Virus (VSV), (9) Vaccinia Virus (VV), (10) Adenovirus (AD), and (11) Human Immunodeficiency Virus (HIV). SRI is scheduled to evaluate approximately 1500 compounds per year against each of these eleven viruses *in vitro*, using standard CPE-inhibition and quantitative plaque-reduction assays, to determine the virus rating and the 50% minimal inhibitory concentration (MIC₅₀), or median inhibition dose (ID₅₀), of active compounds, respectively. Determinations are also being made of the cytotoxicity of each candidate compound for the host cells, expressed in terms of the minimum cytotoxic concentration of the compound. We are calculating an *in vitro* therapeutic index for each active compound against each susceptible test virus. All screening data are being reported to Technassociates, Inc. and to USAMRIID essentially as it is obtained in hardcopy form or on diskettes.

Additionally, SRI is conducting the primary screening of compounds furnished directly from the Developmental Therapeutics Program, NCI, for antiviral efficacy in cell culture against Human Immunodeficiency Virus. Approximately 160 compounds per week (8000 per year) are evaluated for the 50% inhibitory dose and cytotoxicity using spectrophotometric quantitation of cell viabilities. This system utilizes an automated plate reader, interfaced with a computer system, for data collection and analysis. The results from the SRI testing laboratory are transmitted directly to the NCI computer databank.

2.2 Task 2: In Vivo Antiviral Evaluations

SRI is conducting the primary testing of chemical compounds and immunopotentiators, being furnished by the Department of Antiviral Studies, USAMRIID, for antiviral efficacy in rodent models and is conducting a preliminary assessment of acute toxicity with each material submitted. SRI is evaluating the compounds and immunopotentiators against representative viruses from the Togaviridae and Arenaviridae families in rodents. These challenge viruses consist of the following agents: (1) Venezuelan Equine Encephalomyelitis Virus in the mouse, and (2) Pichinde Virus in the hamster. It was recently decided to expand the *in vivo* evaluations to include representative viruses from the Flaviviridae, Poxviridae, and Retroviridae families. This expands our list of challenge viruses to include the following agents: (3) Japanese Encephalitis Virus, (4) Vaccinia Virus, and (5) Rauscher Murine Leukemia Virus. Compounds are evaluated at the primary level against each of these viruses using parenteral routes of administration. Antiviral efficacy is being expressed in terms of the observed increase in the number of survivors, or in the mean survival time, in the treated group

compared with that of the control untreated group. An *in vivo* virus rating is being determined.

2.3 Task 3: Secondary Evaluations

SRI is also conducting the secondary testing and further evaluation of compounds found active in the primary antiviral screen. Secondary testing includes an estimation of the *in vivo* therapeutic index of the candidate compound, the optimal dosage regimen, the optimal route of administration, the optimal treatment schedule, schedule dependency, the duration of antiviral effect, a determination of the utility of the candidate compound in combination with other drugs, and the influence of formulation on activity. SRI is expecting to evaluate approximately 5 compounds per year in extensive secondary *in vivo* testing to include determinations of dose-response relationships and antiviral efficacy. Data will be reported to USAMRIID essentially as it is obtained.

Secondary *in vitro* evaluations of compounds active against Human Immunodeficiency Virus in the primary screen are also being performed. These compounds are being examined for their ability to inhibit HIV-induced p24 *gag* protein expression in permissive target cells by means of an indirect immunofluorescence assay, and for their ability to inhibit the production of HIV-induced reverse transcriptase activity in infected target cells. Active compounds are also being tested for possible cytotoxic effects in various immune function assays. In addition, active compounds are being tested *in vitro* for efficacy against related murine, feline, and simian retroviruses.

3. EXPERIMENTAL METHODS

3.1 Test Compounds

3.1.1 Receipt, Cataloging and Storage

The compounds submitted from USAMRIID for testing in the antiviral screening program were shipped to the SRI home site facility by Technassociates, Inc. The drugs were unpacked, checked against the enclosed shipping list, and recorded in a log book maintained in a bound SRI laboratory notebook. The drugs were then stored in numerical order under the appropriate conditions according to the storage information listed on each drug data sheet. Drugs to be used in the BL-3 facility were delivered to the building after they were logged in at the home site. Copies of the shipping list and drug data sheets were distributed to each task leader.

If the full amount of the drug was available, the sample was split by TI into 25 and 45 mg samples. The 25 mg sample was retained at the home site for drug solubility determination and assay in 3 virus systems (VV, AD, VSV). The 45 mg sample was used for the 7 virus systems (PT, VEE, YF, HTN, PIC, JE, SF) in the BL-3 facility. If less than 70 mg of drug was provided, the solubility was determined and the drug tested against as many viruses as possible according to the priority list provided by TI.

Compounds which were submitted for testing against HIV and compounds submitted for *in vivo* testing were sent to the BL-3 facility as soon as they were logged in at the home site.

3.1.2 Determination of Solubilities

If drug solubility information was included on the drug data sheet, then that information was used. If no information was available, solubility was determined at the home site and the information distributed to each task leader.

To determine the solubility of a drug, a 1-mg sample was weighed, placed in a homogenizer vessel, and the first solvent on the priority list was added. If the drug did not dissolve in the solvent, it was heated to 40°C (unless it was known to be heat-unstable). If the drug was not in solution after heating, it was homogenized with a hand homogenizer. If the drug still was not in solution, another sample was weighed and this procedure used with the next solvent on the priority list. The priority list of solvents was as follows: H₂O, 1 N HCl or 1 N NaOH (used only if the drug was known to be stable in the presence of acid or base), ETOH, DMSO or acetone. If a compound was not soluble in any of the above listed solvents, then it was suspended in cell culture medium with the aid of a hand homogenizer or a vortex mixer.

3.1.3 Compound Preparation for Testing

For use in an experiment, the drugs were weighed in advance and stored under the appropriate conditions. Drugs were solubilized on the day of assay using the solvent which had previously been determined to be optimal for that drug. The drug solution was then diluted in serial half-log₁₀ dilutions in the appropriate cell culture medium.

Initial control experiments for each solvent in each virus, host-cell system were done to determine a noncytotoxic, inactive amount of solvent which could be used in each assay system. If a safe concentration could not be determined, then a solvent control was included with each experiment.

3.1.4 NCI Compounds

Compounds supplied to us from the NCI storage contractor for retrovirus screening were received and prepared for testing in a separate drug preparation laboratory.

Tasks, such as acknowledgement of drug receipt, internal data-base management of all drugs, initialization of the In-vitro Screening System (IVSS), drug evaluation and data reporting were accomplished with an integrated computer system consisting of local and foreign hard-ware and soft-ware.

Local hardware consists of 4 micro-computers, 5 Ampex terminals, 2 bar-code printers, 2 dot-matrix printers, 1 laser printer, and 2 96-well plate readers. Local software included public domain communications programs as well as commercial programs for relational data base management and word-processing.

Foreign hardware included two NIH main-frame computers located in Bethesda, Md, a DEC 10 and an IBM-370. Access and use of these computers was under the auspices of the Division of Computer Research and Technology (DCRT). Software, the IVSS (*In vitro* screening system), was provided by Value Systems Engineering (VSE) under contract to DCRT.

Initialization of the IVSS was through the AVAIL module of that program on the IBM-370 after drug solubilizations had been performed. Solubility determinations were made using vehicles in the following order; distilled water, DMSO, methyl alcohol, ethyl alcohol, or any other vehicle requested by DTP. When a vehicle was found in which the test agent was soluble, the maximum solubility in that diluent was determined up to a maximum of 100 mg per ml. Using the vehicle found in the solubility determination, the test agent was prepared at the highest soluble concentration (maximum 100 mg/ml), labeled with a bar-code label produced in the AVAIL module of the IVSS, and stored at -20 °C until delivered to the HIV screening laboratory.

3.2 In Vitro Antiviral Screening: DNA Viruses and Exotic RNA Viruses

The viruses and host cell lines used in our *in vitro* assays are listed in Table 1. The antiviral activity of a compound was a measure of its ability to inhibit the cytopathogenic effect (CPE) of the virus on its host cell. Compounds were evaluated against most of the viruses in a standard CPE-inhibition assay. Mammalian cells were pregrown as monolayer cultures in 96-well tissue culture plates using suitable cell culture medium. Stock viruses were pretitered according to the method of Reed and Muench (1938) and diluted in cell culture medium to yield 32 TCID₅₀ (tissue culture infectious dose, 50%) units per 0.1 ml. Antiviral assays were designed to test seven 0.5-log₁₀ concentrations of each compound in triplicate against the challenge viruses. If drug cytotoxicity was provided, then drug concentrations were chosen to range from toxic to noncytotoxic. If no cytotoxicity information was available, testing began at 320 µg/ml. To each of the replicate host cell cultures were added 0.1 ml of the test drug solution and 0.1 ml of virus suspension. Cell controls containing medium alone, virus controls containing medium and virus, and drug cytotoxicity controls containing medium and each drug concentration were included on each plate. The covered plates were incubated at 37°C until maximum virus-induced CPE were observed in the untreated, virus-infected control cell cultures. Positive control drugs (Table 1) were included in each antiviral assay to validate the test conditions used in the antiviral assays.

TABLE 1
IN VITRO ANTIVIRAL SCREENING MODELS

<u>Virus</u>	<u>Strain</u>	<u>Classification</u>	<u>Cell Line</u>	<u>Positive Control Compound</u>
Vaccinia Virus	Lederle Chorio-allantoic	Poxviridae	Vero	Selenazole, Arabinofuranosyladenine
Adenovirus Type 2	Adenoid 6	Adenoviridae	HEp-2	Ribavirin, Selenazole
Vesicular Stomatitis Virus	Indiana	Rhabdoviridae	L929	Carbocyclic-3-deaza-adenosine
Punta Toro Virus	Adames	Bunyaviridae	Vero	Ribavirin, Selenazole
Sandfly Fever Virus	Sicilian	Bunyaviridae	Vero	Ribavirin, Selenazole
Pichinde Virus	4763	Arenaviridae	Vero	Ribavirin
Venezuelan Equine Encephalomyelitis Virus	Trinidad Donkey	Togaviridae	Vero	Ribavirin, Selenazole
Yellow Fever Virus	Asibi	Flaviviridae	Vero	Selenazole
Japanese Encephalitis Virus	Nakayama	Flaviviridae	Vero	Selenazole, Ribavirin
Hantaan Virus	76-118	Bunyaviridae	Vero (VSC-6)	Ribavirin

The degree of inhibition of virus-induced CPE and the degree of drug-induced cytotoxicity were observed microscopically. CPE were scored numerically from 0 (normal uninfected cells) to 4 (100% virus-induced cell destruction) for each individual culture as follows:

- 4 = Viral CPE observed in 100% of the cells
- 3 = Viral CPE observed in 75% of the cells
- 2 = Viral CPE observed in 50% of the cells
- 1 = Viral CPE observed in 25% of the cells
- 0 = No CPE; normal cell monolayer
- u = Unsatisfactory test, e.g., contamination or leakage
- t = Drug is toxic to cells, CPE not discernible
- p = Drug is partially toxic to cells, cell monolayer is intact so that CPE may be discernible

Antiviral activity was determined by calculating the degree of inhibition of virus-induced CPE in drug-treated, virus-infected cell cultures by means of a virus rating (VR). The VR is a standard weighted measurement of antiviral activity taking into account both the degree of CPE inhibition and drug cytotoxicity, and was determined by a modification of the method of Ehrlich *et al.* (1965). The VR was calculated as 0.1 of the sum of the numerical differences between the recorded CPE grade of each test well and that of the corresponding virus control culture. Numerical differences between the reading of test wells containing a drug concentration which was partially cytotoxic (p) and their corresponding virus controls were halved. As requested by USAMRIID, the VR was also reported by the method of Sidwell and Huffman (1971). This virus rating (VR*) was calculated by dividing the VR obtained by the method of Ehrlich *et al.* (1965) by 3. The inhibitory drug concentration which reduced the CPE by 50% (ID₅₀) was calculated by using a regression analysis program for semilog curve fitting. A therapeutic index (TI) for each active test compound for each susceptible virus was determined by dividing the minimum cytotoxic concentration (MTC) of the test compound by the ID₅₀.

Compounds showing antiviral activity in the initial CPE-inhibition assay were retested in confirmatory CPE-inhibition assays. The most active of the compounds having confirmed antiviral activity were further tested in quantitative plaque-reduction assays. The details of the assay procedures for each virus are described below.

3.2.1 Vaccinia Virus (V)

Vaccinia virus, strain Lederle CA, was obtained from Dr. Wilton Richtsel, formerly with Parke, Davis and Co., Detroit, Michigan. We have serially passed VV in HEP-2 (continuous-passage human carcinoma of the larynx) and Vero (continuous-passage African green monkey kidney) cell monolayer cultures. The VV used to screen compounds for USAMRIID was propagated and assayed in Vero cell monolayer cultures in Eagle's minimal essential medium (MEM) supplemented with 2% heat-inactivated fetal bovine serum (FBS) and 50 µg/ml of gentamicin.

A CPE-inhibition assay procedure was employed to screen compounds for activity against VV in cell culture. Vero cells were seeded (40,000 cells/well in 0.2 ml volumes) into wells of 96-well plates. After a 24 hr. incubation period at 37°C in a humidified atmosphere containing 2% CO₂, the growth medium was removed from the replicate cell monolayers. To each of triplicate cell cultures were added 0.1 ml of test compound (at 0 hr post virus

infection) and 0.1 ml of virus suspension. Test drugs and virus suspension were diluted in MEM containing 2% FBS shortly before use.

It has been our experience that a challenge dose of 32 TCID₅₀ of VV per microtiter plate well yielded only 30-60% CPE after 4 to 5 days of incubation. Therefore, for use in our CPE-inhibition assays, stock VV was diluted in medium to contain 320 TCID₅₀ units in 0.1 ml. The plates were incubated at 37°C in the CO₂ incubator until maximum CPE were observed (4-5 days). The cell cultures were examined microscopically for virus-induced CPE and drug cytotoxicity.

Selenazole (AVS-253) and Ara-A (9-β-D-Arabinofuranosyladenine, AVS-1752) were utilized as positive control compounds.

3.2.2 Adenovirus Type 2 (AD)

We obtained the Adenoid-6 strain of Adenovirus Type 2 from the American Type Culture Collection. In our laboratories, the virus was passaged in HEp-2 cell monolayer cultures in MEM supplemented with 0.4% lactalbumin hydrolysate and 2% heat-inactivated FBS.

An early "cytotoxicity" is frequently observed in adenovirus-infected cell cultures. This "cytotoxicity", the result of penton toxin following an accumulation of unassembled viral components within the cell, can mask the later-appearing CPE. To prevent the appearance of this early cytotoxicity, virus stocks were treated as follows: Adenovirus-infected HEp-2 cell cultures were subjected to three cycles of freeze-thawing to disrupt the cell membranes. The material from the cultures was centrifuged, and the pooled supernatant fluid was treated with 100 μg/ml of purified trypsin (Worthington, TRL) for one hour at 37°C. The enzyme action was then stopped by adding soybean trypsin inhibitor (Worthington; titrated for specific activity against trypsin) to the supernatant viral fluid. The trypsin-treated virus preparation, along with the untreated supernatant viral fluid was titrated for infectivity in HEp-2 cell cultures to make sure that the viral infectivity of the treated preparation was not diminished. Before the trypsin-treated stock adenovirus was used for antiviral screening, it was evaluated as the challenge virus against our positive control compounds Selenazole and Ribavirin.

Test compounds were screened for antiviral activity against Adenovirus using a CPE-inhibition assay procedure as described above for Vaccinia Virus. Stock AD was diluted in medium to 320 TCID₅₀ per 0.1 ml. We have found that a 32-TCID₅₀ challenge of AD per plate well resulted in only 50-70% CPE in four days. Because HEp-2 cells grow rapidly, the host cell cultures in the plate wells deteriorated significantly after four days post-virus infection. Therefore the stronger virus challenge allowed 100% CPE to develop in four days.

3.2.3 Vesicular Stomatitis Virus (VSV)

The VSV (Indiana strain) was obtained from Dr. Robert Sidwell, Utah State University, Logan, Utah in 1973. Dr. Sidwell had originally obtained the virus from the ATCC. Since the virus has been in this laboratory, it has been passaged 3 times in L929 cells.

The L929 cells were obtained from the ATCC and have been carried in continuous passage or stored frozen in liquid nitrogen. The medium used to maintain the L929 cells was Eagle's minimum essential medium supplemented with 10% or 5% heat-inactivated fetal bovine serum, 100 units penicillin per ml, and 100 μg streptomycin per ml (EMEM + 10% or 5% ΔFBS).

The preliminary *in vitro* CPE-inhibition assay described above was used to assay the drugs against VSV. The L929 cells were seeded into the 96-well plates at a concentration of 4×10^4 cells per well in 0.2 ml medium. The cells were pregrown for 20 hrs. before the addition of drug and virus. Virus-induced CPE were scored on Day 3 post-virus infection. Carbocyclic 3-deaza-adenosine hydrochloride (C-3-deaza-AdO, AVS 303) was included in each VSV experiment as the positive control drug.

Drugs which demonstrated confirmed activity in the CPE-inhibition assay were evaluated in a plaque reduction assay. For that assay L929 cells were seeded into 6 well tissue culture dishes at a density of 5×10^5 cells/well in EMEM + 10% Δ FBS and incubated at 37°C in a humidified atmosphere containing 5% CO₂. The following day the medium was decanted and a virus inoculum of 0.5 ml was adsorbed for 1 hr. The virus was then removed and the cell layer rinsed with PBS. An agarose overlay (2.5 ml) containing a final concentration of 0.5% agarose in EMEM + 5% Δ FBS was added to each well. Cell and virus control cultures received medium and agarose only. Test and drug control cultures received the appropriate drug concentration in the medium and agarose. The plates were incubated overnight. The following morning, neutral red was added to each well and the plaques were counted in the afternoon.

3.2.4 Punta Toro Virus (PT)

We obtained our original stock of Punta Toro virus (Adames strain) from Dr. Robert Sidwell of Utah State University. His virus stock originated from Dr. Dominique Pifat of USAMRIID.

To grow virus stocks, Vero cells (ATCC) were infected at a low multiplicity of infection (moi; ≤ 0.1) in MEM supplemented with 10% inactivated FBS. Culture fluid was collected at five days post-infection and clarified by centrifugation (5000 rpm, 15 minutes, 4°C) in a Sorvall SA-600 rotor. The supernate was dispensed into 0.5-ml aliquots, then frozen and stored at -120°C. One aliquot was used to determine a TCID₅₀ titer and a plaque forming unit (PFU) titer for the stock.

A CPE-inhibition assay was used to screen compounds for antiviral activity against PT virus. Vero cells were treated for 30 minutes at 37°C with DEAE-dextran (25 μ g/ml) and 1% DMSO in 0.1 ml Hanks balanced salt solution. The pre-treatment solution was removed, and an 0.1 ml virus inoculum containing 32 TCID₅₀ of PT virus was added. Following a 30-minute adsorption period at 37°C, 0.1 ml of compound or medium alone was added to the appropriate wells.

When virus control wells showed maximum CPE (6-8 day), the cells were fixed by addition of 100 μ l buffered formalin (at least 1 hr at room temperature). All liquid was removed and the cells were stained with 0.1% Coomassie Brilliant Blue R-250 (Sigma Chemicals, St. Louis, MO) for about 1 hour at room temperature. The plates were rinsed with deionized water, allowed to dry, and then observed microscopically for CPE and drug cytotoxicity.

Compounds showing good antiviral activity in the CPE-inhibition assays were further evaluated in a plaque-reduction assay. Vero cells, seeded into twelve-well culture trays at a density of 1.5×10^5 cells per well, were incubated at 37°C in a humidified atmosphere containing 5% CO₂. The following day, the medium was aspirated and cell monolayers were treated with a solution of 20 μ g/ml DEAE Dextran-1% DMSO in Hanks Balanced Salt

Solution. After a 30 minute incubation at 37°C, the pretreatment solution was removed and 0.1 ml of PT virus diluted in medium to contain approximately 20 PFU/0.1 ml was added to 8 of the 12 cultures of each tray. To the remaining cultures, 0.1 ml MEM containing 10% FBS was added, and the cultures were reincubated for 30 min. After this virus adsorption period, 0.1 ml of the appropriate compound dilution was added to three of the infected cultures and one of the mock infected cultures (toxicity control) of each tray. Control and experimental compounds were serially diluted in half-log₁₀ increments in MEM containing 10% fetal bovine serum (final concentrations used were 320 µg/ml to 0.32 µg/ml). Two virus control and two cell control cultures received 0.1 ml of medium only. When all culture trays had received either compound or MEM, 0.8 ml of agarose overlay was added to each culture. The cultures were mixed by gentle swirling and set on a level surface until the overlay had solidified. The agarose overlay used in the assay contains Eagles' MEM, fetal bovine serum, glutamine, sodium bicarbonate, penicillin/streptomycin, and Seakem Agarose in final concentrations of 1x, 10%, 1mM, 2.2 mg/ml, 100 units/ml, 100 µg/ml, and 0.7% respectively. The cultures were incubated 6 days, after which 1 ml of buffered formalin was added to inactivate the virus. Monolayers were stained with Coomassie Brilliant Blue and the plaques counted.

3.2.5 Sandfly Fever Virus (SF)

We obtained our original stock of Sandfly fever virus, Sicilian strain (TC adapted), from Dr. George R. French of the Salk Institute, Government Services Division, Swiftwater, PA.

To grow virus stocks, Vero-76 cells (Dr. French, Salk Inst.) or Vero cells (ATCC), depending on availability, were pre-treated with DEAE-dextran (25 µg/ml) and 1% DMSO in growth medium (MEM containing 10% inactivated FBS) for 30 minutes at 37°C. This was removed and then the cells were infected with SF virus in growth medium at an moi of 0.1. Virus was allowed to adsorb for one hour at 37°C. A minimal volume of growth medium was then added and the cells were incubated at 37°C. The culture fluid was collected at four days post infection and clarified by centrifugation (5000 rpm, 15 min, 4°C). The supernate was dispensed into 0.5 ml aliquots, then frozen and stored at -120°C. One aliquot was used to determine TCID₅₀ and PFU titers for the stock.

Antiviral screening of compounds for activity against SF virus was performed on Vero cells in 96-well trays (Corning). Cells were pre-treated for 30 minutes at 37°C with DEAE-dextran (25 µg/ml) and 1% DMSO in 0.1 ml Hanks balanced salt solution. This was removed and then 0.1 ml growth medium containing 32 TCID₅₀ of SF virus was added and allowed to adsorb for 30 minutes at 37°C. 0.1 ml of test compound, control compound (Ribavirin or Selenazole), or growth medium was then added to appropriate wells.

When virus control wells showed maximum CPE (6-8 days), the cells were fixed by addition of 100 µl buffered formalin (≤ 1 hour, 22°C). All liquid was removed and then the cells were stained with 0.1% Coomassie Brilliant Blue R-250 (Sigma Chemicals, St. Louis, MO) for ≥ 1 hour at 22°C. The plates were rinsed with deionized water, allowed to dry, and then observed microscopically for CPE.

A plaque-reduction assay was developed to further confirm the antiviral activity of compounds showing the greatest activity in the CPE-inhibition assays. The plaque-reduction assay procedure for SF is the same as described above for Punta Toro Virus, except that the agarose overlay additionally contains 1% DMSO and 0.002% DEAE-dextran. This allowed for an enhancement in plaque size.

3.2.6 Pichinde Virus (PIC)

Vero cells, obtained from Dr. George French of the Salk Institute, Swiftwater, PA, were maintained in Eagle's Minimal Essential Medium containing 10% fetal bovine serum. Baby hamster kidney (BHK-21) cells were obtained from the American Type Culture Collection and maintained in MEM containing 10% newborn calf serum and 10% tryptose phosphate broth.

Pichinde virus strain 4763 was obtained from Dr. J. Gangemi of the University of South Carolina, School of Medicine. The virus preparation received was that of a guinea pig spleen homogenate from Pichinde virus infected guinea pigs. After amplifying this virus preparation in BHK-21 cells, a three-time plaque-purified virus preparation was generated in Vero cells. The plaque-purified virus was amplified twice in BHK-21 cell cultures and stored at -120°C as a virus seed stock. Several preparations of virus used for plaque-reduction assays were prepared by infecting BHK-21 cells with seed stock virus at a multiplicity of infection of 1 PFU/cell. Culture fluids collected three days post-infection were clarified by centrifugation at $600 \times g$ for 5 min., frozen rapidly in a dry ice/ethanol bath and stored at -120°C or -84°C in small aliquots. These preparations had virus titers ranging from 6.4×10^7 to 1.2×10^9 PFU/ml.

Vero cells, seeded into six-well cell culture trays at a density of 8×10^5 cells per well, were incubated at 37°C in a humidified 5% CO_2 incubator. The following day the cultures were examined microscopically for confluency. Ribavirin, Selenazole, and experimental antiviral drugs were serially diluted in half- \log_{10} increments in MEM containing 10% FBS (final concentrations used were $320 \mu\text{g/ml}$ to $0.1 \mu\text{g/ml}$). Culture fluids were removed by aspiration and to four of the six cultures of each tray were added a 0.2 ml inocula of PIC virus diluted in MEM containing 10% FBS so as to contain 40 to 80 PFU. To the remaining cultures of each tray, 0.2 ml of culture medium alone was added. The cultures were reincubated as above and periodically shaken so that the inoculum was dispensed over the entire monolayer.

One hour later, 0.2 ml of the appropriate dilution of drug was added to three of the virus-infected cultures (virus-infected, treated) and to one of the mock infected cultures (toxicity control) on each tray. To the remaining mock infected (cell control) and virus-infected (virus control) cultures were added 0.2 ml of MEM containing 10% FBS. The culture fluids were mixed by shaking the culture trays, then 1.6 ml of agar overlay was added and each culture was thoroughly mixed as above. The cultures were set on a level surface until the agar overlay solidified and were then reincubated at 37°C . The agar overlay used in the assay contained Eagle's MEM, fetal bovine serum, glutamine, non-essential amino acids, sodium bicarbonate, and Noble agar in final concentrations of 1x, 2%, 1mM, 1 mM, 2.2 mg/ml and 1% respectively.

Three days later, 2 ml of a sterily filtered neutral red solution (0.08 mg/ml in phosphate buffered saline) was added to each culture. Cultures were reincubated; then six to eight hours later plaques were examined and counted. With each daily assay, Ribavirin or Selenazole (positive control antiviral drugs) was included in a parallel assay. Drug cytotoxicity was microscopically evaluated and rated as with CPE-inhibition assays.

3.2.7 Venezuelan Equine Encephalomyelitis Virus (VEE)

We obtained our original stock of Venezuelan Equine Encephalomyelitis Virus, Trinidad Donkey strain, from Dr. George R. French of The Salk Institute, Swiftwater, PA.

The virus was propagated in Vero cells (ATCC) by infection at a moi of <0.1 PFU/cell. Fluids from infected cultures were collected three days post infection and clarified by centrifugation (5000 rpm, 15 min, 4°C) in a Sorvall SA-600 rotor. The supernatant fluid was dispensed into 0.5-ml aliquots, quick frozen in a dry ice-ethanol bath and stored at -120°C. One aliquot was used to determine TCID₅₀ and PFU titers of the stock.

We have been using a standard CPE-inhibition assay to screen test compounds for antiviral activity against VEE virus. Vero cells were seeded into wells of 96-well trays (1.5 x 10⁴ cells per well) and incubated at 37°C in a humidified incubator with a 5% CO₂ atmosphere. On the following day, culture medium was removed and the cultures were inoculated with 0.1 ml of VEE virus stock containing 32 TCID₅₀. Cultures were incubated at 37°C for 1 hr to allow virus to adsorb, then 0.1 ml of compound or medium alone was added to the appropriate cultures. Cultures were reincubated at 37 °C until the virus control cultures (infected/untreated) exhibited maximum CPE (3 days post-infection). At this time all cultures were fixed with buffered formalin and stained with Coomassie blue as described above for PT and SF. The cultures were washed three times with deionized water and allowed to air dry, then examined microscopically for CPE and drug cytotoxicity.

3.2.8 Yellow Fever Virus (YF)

We obtained our original stock of Yellow Fever Virus, Asibi strain, from Dr. Andrew J. Main, Jr., of the Yale Arbovirus Research Unit, New Haven, CT.

To grow virus stocks, Vero cells (ATCC) were infected at an moi of about 0.1 PFU/cell in MEM containing 10% inactivated FBS. Virus was allowed to adsorb for 1 hour, after which a minimal volume of growth medium was added and the cells were incubated at 37°C. The culture fluid was collected at 5 days post infection and clarified by centrifugation (5000 rpm, 15 minutes, 4°C) in a Sorvall SA-600 rotor. The supernate was dispensed into 0.5 ml aliquots and then frozen and stored at -120°C. One aliquot was used to determined the TCID_{2.5} and PFU titers for the stock.

We have used a standard CPE-inhibition assay to screen test compounds for antiviral activity against YF virus. Vero cells were seeded into wells of 96-well trays (1.5 x 10⁴ cells/well) and incubated overnight at 37°C in a humidified incubator with a 5% CO₂ atmosphere. Culture medium was removed and the wells were inoculated with 0.1 ml of the YF virus stock containing 32 TCID₅₀. Cultures were incubated for 1 hr at 37°C to allow virus to adsorb, then 0.1 ml of compound or medium alone was added to the appropriate cultures.

Virus control wells showed maximum CPE at 6-8 days post infection. The cells were fixed and stained as described above for PT and SF virus, and observed microscopically for CPE and drug cytotoxicity.

3.2.9 Japanese Encephalitis Virus (JE)

We obtained our original stock of Japanese Encephalitis Virus, Nakayama strain, from Dr. George R. French of the Salk Institute, Swiftwater, PA.

To grow virus stocks, Vero cells (ATCC) were infected at an moi of about 0.1 PFU/cell in MEM containing 5% FBS. Virus was allowed to adsorb for 1 hour, then a minimal volume of growth medium was added and the cells were incubated at 37°C. The culture fluid was collected at 4-5 days post infection and clarified by centrifugation (5000 rpm, 15 minutes, 4°C) in a Sorvall SA-600 rotor. The supernate was dispensed into 0.5 ml aliquots and then frozen and stored at -120°C. One aliquot was used to determine TCID₅₀ and PFU titers of the stock.

We have used a standard CPE-inhibition assay to screen test compounds for antiviral activity against JE virus. The assay procedure was the same as described above for YF virus. The JE virus control wells showed maximum CPE at 6-8 days post-infection. The plates were rinsed with deionized water, allowed to dry, and then observed microscopically for CPE and drug cytotoxicity. Fixing with buffered formalin and staining with Coomassie blue were as described above.

3.2.10 Hantaan Virus (HTN)

We obtained several vials of Hantaan Virus, strain 76-118, (formerly referred to as Korean Hemorrhagic Fever Virus, KHF) from Dr. John W. Huggins and Mr. Orville Brand of USAMRIID. Initial attempts to plaque this virus in a routine plaque assay were unsuccessful. Discussions with Dr. Huggins and Mr. Brand indicated that the quality of the reagents used in the assay is critical. Mr. Brand graciously supplied us with a shipment of his tested cell culture supplies and fresh cultures of Vero VSC-6 cells to use in assaying KHF virus.

Six-well culture trays of VSC-6 cells were seeded at a density of 3.75×10^5 cells/well with MEM containing 5% horse serum, 5% Nu serum, 10 mM HEPES buffer, 2mM glutamine, 1mM sodium pyruvate, and penicillin/streptomycin (at 100 units and 100 µg per ml, respectively) and incubated at 37°C in a 5% CO₂ humidified atmosphere. As suggested by Mr. Brand, KHF virus was diluted tenfold in MEM with supplements and stored at 4°C overnight prior to assay.

The following day, the culture medium was aspirated and 0.4 ml of virus dilution was added to duplicate cultures. Two cultures per tray were mock infected with 0.4 ml MEM. Culture trays were incubated for 1 hour at 37°C and swirled every 15 minutes.

After 1 hour adsorption, 2.5 ml of overlay consisting of cell culture medium plus 0.6% agarose was added to each culture. The trays were reincubated at 37°C. Seven days after infection, a 2.0 ml volume of overlay was added to each culture and the cultures reincubated. Twelve days after infection, 1 ml of overlay with neutral red was added to each well. Culture trays were reincubated and observed for plaques from day 13 to day 20 post infection.

3.3 In Vitro Antiviral Screening: Retroviruses

3.3.1 Primary Screening-HIV

3.3.1.1 Modified Broder assay

We obtained the human OKT4⁺ T-cell clone, ATH8, from Dr. Samuel Broder's laboratory (NCI) through Dr. Hiroaki Mitsuya. This cell line is quite sensitive to the cytopathic effect of Human Immunodeficiency Virus (HIV). We propagated these cells in RPMI 1640 medium supplemented with 4 mM glutamine, 15% heat-inactivated fetal bovine

serum, antibiotics (50 units of penicillin and 50 μg of streptomycin per ml), and 50 units of recombinant-derived human interleukin-2 (ala-125; AMGen Biologicals) per ml. The clone H9 cell line, an OKT4⁺ human T-cell line that is permissive for HIV replication but largely resistant to virus-induced CPE, H9 cells productively infected with the HTLV-III_B strain of HIV, and H9 cells productively infected with the RF-II Haitian variant of HIV were obtained from Dr. Robert Gallo's laboratory (NCI) through Dr. Howard Streicher. We propagated these cell lines in RPMI 1640 medium supplemented with 4 mM glutamine, 20% heat-inactivated fetal bovine serum, and antibiotics (50 units of penicillin and 50 μg of streptomycin per ml). For infectious virus we used undiluted culture supernates from H9/HTLV-III_B producer cells. We have found that supernate collected 48 hours post-cell passage shows the best infectivity.

The initial screening of all compounds received from USAMRIID for retrovirus antiviral activity was done using the modified CPE-inhibition assay developed by Broder and co-workers (Mitsuya *et al.*, 1985 and 1986). This assay is based on the ability of uninfected ATH8 cells to grow and form a pellet at the bottom of a culture tube. Starting about 4 days after HIV addition, infected ATH8 cells began to die and the pellet started to break up. The cell pellet was completely destroyed within 10 days. The protective effect of test compounds was assessed by adding them at varying concentrations to the cultured cells at the time of virus infection, then monitoring the status of the cell pellet.

ATH8 cells were used as the primary target cells in the HIV-induced CPE-inhibition assay. Cells were treated with polybrene (2 $\mu\text{g}/\text{ml}$ in growth medium) for 30 minutes at 37°C, then collected by gentle centrifugation (40 xg for 15 minutes at room temperature) and resuspended in clarified (8000 xg for 15 minutes at 4°C) supernate freshly harvested from 48 hour post-passage H9/HTLV-III_B cells. Following a 60-minute adsorption period at 37°C, the cells were dispensed into the U-bottom wells of 96-well trays (2 x 10⁴ cells in 0.1 ml per well). An equal volume (0.1 ml) of supplemented RPMI 1640 medium containing test compound and twice the normal concentration of interleukin-2 was then added to each well. Test compounds were evaluated at seven half-log₁₀ dilutions. Triplicate virus-infected cultures and one uninfected compound cytotoxicity control culture were included at each dosage level. Cultures were incubated at 37°C in a humidified atmosphere of 5% CO₂ in air. The sizes of the cell pellets in the test compound wells were compared to the pellet sizes of infected and uninfected cell control wells daily for 10 days. On day 10 post-infection aliquots were taken from selected individual wells and the total cell number and cell viability (based on trypan-blue dye-exclusion) were determined. Dideoxycytidine was included as a positive control with each set of compounds tested.

3.3.1.2 XTT assay

In order to accommodate the large volume of screening required by the NCI modification of this contract, an automated assay system was adapted based on the screening program in use by the NCI Developmental Therapeutics Program. We have used the human T-cell line MT-2 (Harada *et al.*, 1985) in these assays. These cells have growth characteristics resembling transformed cells, do not require interleukin, and undergo a lytic infection with HIV. They are therefore well suited to a large scale screening program.

This assay resembles the modified Broder assay in the virus and drug inoculation regimens. At the time of assay analysis, however, the XTT assay involves addition of a tetrazolium dye (XTT) which is converted by viable cells to a soluble formazan derivative which is measured by optical density (O.D.). The O.D. value obtained for a given well is proportional to the number of viable cells in the well and is therefore a measure of virus-induced CPE (and also cytotoxicity) or conversely, the inhibition of CPE by a test compound.

As developed by the NCI (Developmental Therapeutics Program), the optical densities were read by an automated plate reader which is interfaced to a computer. In addition to collecting and analyzing the test data, the computer system maintained schedules and plate identification numbers. The computer in the testing laboratory was linked to a unit in the compound preparation laboratory and both were on line to a mainframe computer at the NCI.

Assays were scheduled for testing using the ASGN module of the IVSS. We have begun specific drug assignments rather than utilizing the priority designation system from the mainframe Master files as we did at the beginning of the program. We changed this method primarily because the AVAIL module of the IVSS system, as written, cannot differentiate varying cell line assignments and the in-vitro screening program now uses 2 cell lines, MT-2 and CEM.

In addition to AVAIL and ASGN which are accessed under MS-DOS on the IBM-370, there are XENIX operating system programs stored on a micro-computer in the treatment laboratory. These XENIX modules of the IVSS include Plate inoculation, Drug Addition, Stain Addition, and Plate Reading. The plate reading module uses a V MAX Kinetic Micro plate reader interfaced to the XENIX program on the micro-computer. Data from this computer is automatically up-loaded and down-loaded from the IVSS system managed by VSE in Alexandria, VA. Plate Analysis Reports are automatically generated and printed locally during Plate Read before automatic up-load of the data to the main-frame.

Requests for additional quantities of drugs to be retested, and periodic over-all status reports were communicated to DTP staff primarily through electronic mail services on the NIH mainframe computers.

3.3.2 Confirmatory Tests

3.3.2.1 Reverse transcriptase assay

We have standardized our method for isolation and assay of HIV reverse transcriptase from cell-free virus particles. The cells were removed by low speed centrifugation and virus was pelleted from the clarified supernatant fluid by centrifugation at 16,000 xg for 2 hr at 4°C. The pellet was resuspended at 1/10th of the initial supernatant volume in 10 mM Tris-HCl (pH 7.8), 1 mM ethylenediaminetetraacetic acid (EDTA), 200 mM KCl, 10 mM β -mercaptoethanol, 3 μ M leupeptin, and 0.5% Triton X-100. It was then dispersed by vortexing and allowed to sit at room temperature for 1 hour. This room temperature incubation was found to destroy infectivity, making the sample safe for analysis in the enzymology laboratory. These samples could be stored at 4°C for 1 to 2 days before assaying.

Ten μ l of the sample was assayed in a 50- μ l reaction mixture with the following concentrations: 0.10% Triton X-100, 60 mM Tris-HCl (pH 7.9), 121 mM KCl, 9.0 mM $MgCl_2$, 7.8 mM β -mercaptoethanol, 0.36 mM ethyleneglycol-bis(β -aminoethyl ether) N, N, N', N'-tetraacetic acid, 0.2 mM EDTA, 0.6 μ M leupeptin, 1 μ g of poly (rA).(dT)₁₂₋₁₈, and 60 μ M dTTP (12.5 μ Ci ³H in Tricine buffer). The assay was run at 37°C for 1 hour and terminated by adding 65 μ l of 0.2 M sodium pyrophosphate. One hundred μ l of the mixture was spotted on a Whatman GF/A glass microfibre filter and processed by the method described by White *et al.* (1982). Results were expressed as picomoles of dTTP incorporated per hour.

3.3.2.2 Immunofluorescence assay

The details of the indirect immunofluorescence assay (IFA) for HIV based on the intracellular expression of viral p24 were worked out using virus-infected H9 cells and monoclonal antibody to p24 (Veronese *et al.*, 1985) that was obtained from Drs. Veronese and Gallo through Dr. Howard Streicher, National Cancer Institute, Bethesda, MD. The dilution of antibody for use under routine conditions was determined by titration of the antibody on acetone-fixed, virus-infected cells. Fluorescein-conjugated goat anti-mouse IgG was obtained commercially. In the staining procedure, virus-infected cells at a density of approximately 1×10^6 cells/ml were spotted on glass slides, air-dried, and fixed in cold acetone (-20°C). Fixed cells were incubated with dilutions of monoclonal antibody in PBS for 30 minutes at 37°C , washed in three changes of PBS for a total of about 10 minutes, then incubated with a 1:20 dilution of fluorescein-conjugated antiserum for 30 minutes at 37°C , washed again, and mounted in phosphate-buffered glycerol. Cytoplasmic fluorescence was clearly observable at antibody dilutions up to 1:2000. Staining was progressively weaker at dilutions of 1:4000 and 1:8000.

In confirmatory tests with candidate active antiviral agents, reductions in virus yields were measured based on IFA determinations of p24 gag protein expression in treated and untreated infected H9 cells *in vitro*. Replicate cultures of H9 cells (10^5 cells per culture) were exposed to various concentrations of active test compounds for 4 hours and then to polybrene ($2 \mu\text{g/ml}$) for 30 minutes. The cells were pelleted and exposed to HIV for 1.5 to 2.0 hours. The cells were then resuspended in fresh growth medium containing test compound or, for control, in medium alone (without test compound) and were then incubated at 37°C in an atmosphere of 5% CO_2 in air. The percentage of target H9 cells expressing HIV p24 gag protein was determined on Day 7 postinfection by IFA using the anti-HIV p24 monoclonal antibody provided by NCI. The antiviral efficacy of the test compound was measured by the percent reduction in the number of cells exhibiting specific immunofluorescence in the cultures after treatment when compared with the number of cells expressing p24 in the control (untreated), virus-infected cultures.

3.3.2.3 HeLa-T4⁺ cell syncytial focus-inhibition assay

A focus-inhibition assay, using the HeLa-T4⁺ cell line (Maddon *et al.*, 1986), for quantitative assessment of antivirals has been developed. We currently have available H9 producer cell lines for three different HIV strains (HTLV-III-B, RF-II, and WMJ-1). All three strains of virus induced syncytia in HeLa-T4⁺ cells within 20 hours when infected H9 cells were cocultivated with the HeLa-T4⁺ cells for 4 hours then removed. In addition, cell-free supernatant virus of the RF-II strain, but not the III-B and WMJ-1 strains, induced syncytia in HeLa-T4⁺ cells within 20 hours when it was used directly as a virus inoculum.

Uninfected H9 cells were infected with either the III-B, RF-II or WMJ-1 strain of HIV and grown at 37°C in a humidified atmosphere containing 5% CO_2 . Infected H9 cells and freshly trypsinized HeLa-T4⁺ cells were mixed together in a 1 to 10 ratio and dispensed into the wells of a 96-well plate such that 2×10^4 infected H9 cells and 2×10^5 HeLa-T4⁺ cells were added to each well. These cells were cocultivated for 4 hours at 37°C , then the unattached cells were removed and the monolayers were rinsed once with serum-free medium. By 20 hours after plating, numerous syncytial foci of multinucleated giant cells were formed in the HeLa-T4⁺ monolayers. Some background syncytia were observed with uninfected H9 cells fusing to the HeLa-T4⁺ monolayer; however, the number of syncytia was very low (2-4/well as compared to 40-50/well with infected cells).

For antiviral assays, subconfluent monolayers of HeLa-T4⁺ cells (approximately 90% confluent) were infected with undiluted 48-hour harvest of cell free virus supernate collected from H9/RF-II producer cells. The assays were set up in 96-well flat-bottom microculture plates. One hour after adsorption, half-log₁₀ dilutions of the appropriate drugs were added to triplicate wells. Drug cytotoxicity was monitored on HeLa-T4⁺ cells without the virus. Two days post-infection, the plates were fixed and stained and the number of foci (containing 5 or more nuclei) were counted.

3.3.3 Secondary Evaluations

3.3.3.1 Feline leukemia virus - FAIDS variant (FeLV)

We obtained our initial stock of Feline Leukemia Virus, FAIDS variant from Dr. Ed Hoover of Colorado State University.

Following the procedure for growing stock virus established by Dr. Hoover, feline embryonic fibroblasts, AH-927 (Dr. Hoover), were grown in MEM containing 10% inactivated FBS and 1% non-essential amino acids. Twenty-four hours prior to infecting with virus, the cells were subcultured at a ratio of 1:4 and 0.2 ml of Polybrene (2 mg/ml stock) was added for each 100 ml growth medium. On the day of infection, the growth medium was removed and the cells were washed twice with PBS. The virus inoculum was allowed to adsorb for 1 hour at 37°C. The virus inoculum was removed, the cells washed twice with PBS, and then a minimal volume of growth medium containing Polybrene was added. After five days incubation the culture fluid was collected and clarified by centrifugation (5000 rpm x 15 min). The supernate was dispensed into 1.0-ml aliquots, frozen, and then stored at -120°C. One aliquot was used to determine the TCID₅₀ and the focus forming unit (FFU) titers of the stock.

Antiviral screening of compounds for activity against FeLV-FAIDS was performed in 96-well trays (Corning). This screening procedure is a modification of the FeLV infectivity assay established by Fischinger *et al.* (1974). Forty-eight hours prior to the assay, the indicator cells, 81C (obtained from D. Graves, University of Oklahoma, Oklahoma City, OK) were subcultured at a ratio of 1:2. Twenty hours prior to the assay, 96-well trays were seeded with the 81C cells at 5×10^3 cells/well. On the day of the assay, the cells were pretreated for 30 minutes at 37°C with DEAE-dextran (25 µg/ml) in 0.1 ml Hanks balanced salt solution. This was removed and then 0.1 ml of growth medium containing 32 TCID₅₀ of FeLV-FAIDS, or 0.1 ml of growth medium alone, was added to each well. The virus was allowed to adsorb for 1 hour, then 0.1 ml of test or control compound (2',3'-dideoxycytidine or 3'-azidothymidine), or growth medium was added. Plates were incubated at 37°C. Cells were fed fresh growth medium containing compound on day 4 post-infection. Culture media were completely changed and replaced with fresh media containing compound on day 7 post-infection. On day 10 post-infection the cells were fixed by addition of 100 µl buffered formalin for at least 1 hr at room temperature. All liquid was then removed and then the cells were stained with 0.1% Coomassie Brilliant Blue R-250. The plates were rinsed with deionized water, allowed to dry, and then observed microscopically for CPE and drug cytotoxicity.

3.3.3.2 Simian retrovirus - SAIDS (SRV-2)

We received from Dr. Che-Chung Tsai one T25 flask and one 15 ml tube of a co-culture of Raji cells infected with a simian type D retrovirus (SRV-2) isolated from a macaque with SAIDS at the Washington Regional Primate Research Center. Subsequently, we purchased uninfected Raji cells (CCL-86) from the ATCC for the purpose of making fresh co-cultures with which to propagate the virus. These cells were successfully grown in Iscove's Modified Dulbecco's Medium containing 15% fetal bovine serum (complete Iscove's). The cells were subcultured every three days by a split ratio of 1:3. This yielded approximately $3-5 \times 10^5$ cells/ml.

Co-cultures of normal Raji cells and Raji cells infected with SRV-2 were also maintained in complete Iscove's. These cells were subcultured every three days by a split ratio of 1:3 (yield = $3-5 \times 10^5$ cells/ml). Raji cells and infected co-cultures were maintained regularly. Fresh co-cultures were routinely set up according to the procedure provided by Dr. Che-Chung Tsai of the Washington Regional Primate Research Center. Briefly, 1 ml of 8 ml of an actively growing co-culture was added to a T25 flask containing 8 ml of complete Iscove's medium to which 0.5 ml of actively growing Raji cells had been added. This new co-culture was incubated at 37°C with 5% CO₂ with the flask in an upright position.

The antiviral screening of compounds against the SAIDS virus was performed by a syncytia-inhibition assay on Raji cells. Compounds were diluted in complete Iscove's medium and then 100 µl of each dilution was added to the appropriate wells of a 96-well plate. Actively growing Raji cells, 5×10^3 cells in 50 µl of complete Iscove's medium, were then added to each well. This was followed by the addition of 50 µl of clarified supernate from an SRV-2/Raji cell co-culture. Plates were incubated at 37°C in a humidified atmosphere containing 5% CO₂. Syncytia were counted on day seven post-infection. Drug toxicities were ascertained by comparing viable cell counts of uninfected, drug-treated samples to the viabilities of uninfected, untreated controls.

3.3.3.3 Murine AIDS (MAIDS)

Drug testing was begun in the CAS-BR-M murine leukemia virus plaque-reduction assay on compounds which had demonstrated significant antiviral activity in the HIV primary screen. The CAS-BR-M murine leukemia virus was obtained from Dr. John Billelo, V.A. Medical Center, Baltimore, MD. Dr. Billelo provided a culture of infected SC-1 producer cells which were propagated, and the supernatant containing infectious virus was used for the stock virus. These producer cells were maintained in Dulbecco's MEM supplemented with 10% heat-inactivated fetal bovine serum.

The continuous passage SC-1 feral mouse embryo cell line and the continuous passage rat XC sarcoma cell line (obtained from the American Type Culture Collection, Rockville, MD) were used for the plaque assay. Eagle's MEM with Earle's balance salt solution supplemented with 5% or 10% heat-inactivated FBS was used as the growth medium for the propagation of both cell lines.

Falcon 6-well tissue culture plates were seeded with 1.75×10^5 cells per well in a total volume of 2.5 ml EMEM containing 5% inactivated FBS. Twenty hours after the cells were seeded, the medium was decanted and 2.5 ml DEAE-dextran (25 µg/ml in phosphate buffered saline) was added to each well. The cultures were incubated at 37°C for 1 hr., after which the DEAE-dextran solution was decanted and the cell layers rinsed once with

2.5 ml PBS. Normal cell controls were refed with 2.5 ml medium alone (no virus or drug). Drug control cultures received 2.5 ml of medium containing drug but no virus. Virus-infected control cultures received 0.5 ml of the appropriate dilution of stock CAS-BR-M to produce countable plaques plus 2.0 ml medium. The test samples received 0.5 ml of the appropriate virus dilution plus 2.0 ml of the appropriate drug dilution. Six concentrations of each test compound diluted in serial half- \log_{10} dilutions were tested.

Triplicate wells for each concentration of test compound and 6 virus and 6 cell control cultures were included in each assay. Hemacytometer cell counts, using the trypan blue dye-exclusion test for viability were done on duplicate cell control cultures at the time of virus inoculation.

On day 3 post-virus inoculation, the cultures were irradiated with an ultraviolet lamp for 20 seconds and XC cells were added to each culture (5×10^5 cells/well in 2.5 ml EMEM containing 10% inactivated FBS). Viable cell counts were made on control and drug-treated SC-1 cell cultures.

On day 3 post-UV irradiation, the cultures were fixed with formalin and stained with crystal violet. The plaques were counted with the aid of a dissection microscope.

Antiviral activity in the CAS-BR-M plaque-reduction assay was expressed in terms of the reduction in the mean number of plaques counted in the drug-treated, virus-infected cultures compared with the mean number of plaques counted in the untreated, virus-infected control cultures (percent of control). The MIC_{50} and a TI were also calculated.

3.3.3.4 SupT1 assay

A cell fusion-inhibition assay has been adapted from an assay used in Dr. Beatrice Hahn's laboratory at The University of Alabama at Birmingham. A human T-cell line, SupT1 and H9 cells productively infected with the WMJ-1 strain of HIV were obtained from Dr. Hahn. SupT1 cells were derived from a cell line extremely sensitive to HIV and are rich in T4 receptors. When cocultivated with WMJ-1-infected H9 cells or exposed to cell-free virus of the RF-II strain, the SupT1 cells formed giant syncytial cells resembling balloons within 20 hours. These syncytia were easily seen microscopically. For antiviral assays, SupT1 cells were pretreated with half- \log_{10} dilutions of the compound for one hour, then cell-free virus was added. A dose related syncytium-inhibition response was observable by 20 hours post-infection. The syncytia were counted microscopically.

3.4 Antiviral Evaluations In Vivo

3.4.1 Acute Toxicity Determinations

To perform a complete acute toxicity assay, a minimum of 4 grams of compound was needed. Because most compounds supplied to us for *in vivo* testing were available in insufficient amounts to permit both preliminary acute toxicity determinations and antiviral evaluations, preliminary acute toxicity assays were not routinely performed. Instead compounds were processed directly into antiviral screening assays in which acute toxicity drug controls were included. Studies performed in murine systems were dosed once daily for 7 days at 320, 100, 32, and 10 mg/kg/day, while hamster systems were conducted similarly except that dosage levels were 100, 32, 10 and 3.2 mg/kg/day. With this format we were able to assess toxicity for compounds available in as little as 2 gm quantities. In some cases toxicity information was already available; consequently, the dose levels were adjusted appropriately based on that information.

When sufficient compound was available to determine the 10% lethal dose (LD₁₀) of a potential antiviral compound, a two phase acute toxicity protocol was used. The first phase was a range finding procedure in which the test compound was administered on the desired route and frequency schedule at half-log₁₀ dilutions starting at 1000 mg/kg. Body weights were recorded each day that compound was administered. Animals were monitored for mortality for 7 to 14 days after the last compound dose was administered. From this preliminary range-finding assay the LD₁₀ dose was bracketed. Five dose levels of compound within the LD₁₀ range were administered in groups of 10 mice on the desired route and frequency schedule. The animals were monitored as for the range finding assays and the LD₁₀ dose was determined by plotting on probit paper.

3.4.2 Pichinde Virus

A therapeutic testing protocol was used for evaluating the antiviral activity of compounds against Pichinde virus infection of MHA hamsters. Soluble compounds were diluted in phosphate-buffered saline (pH 7.2) while insoluble compounds were diluted and homogenized in 0.4% carboxymethylcellulose in PBS. The compounds were prepared at concentrations appropriate for dosing animals at 0.1 ml of compound per 20 gm of body weight. If there were no stability problems noted on the compound data sheets then compound quantities adequate for the entire experiment were prepared on the first day of dosing. The prepared compounds were maintained sterily at 4°C when not in use. Hamsters (4-wk old, 60-80 gm) were infected intraperitoneally with 1×10^4 PFU of Pichinde virus strain An 4763 in a volume of 0.5 ml of MEM/2% FCS. Fifteen hamsters (5 uninfected, 10 infected) were treated subcutaneously at each compound dose level once daily for 7 days (qld x 7) with the first dose administered 4 hours after virus challenge. Because of compound quantity limitations, the highest dose of compound generally tested was 100 mg/kg with 3-4 serial half-log₁₀ dilutions below this level. Treatment groups included the test compound dilutions as well as the diluent used for compound preparation. Controls included (1) untreated, uninfected animals, (2) untreated, infected animals, (3) virus diluent-treated animals and (4) ribavirin (+ control) treated animals.

3.4.3 Venezuelan Equine Encephalomyelitis Virus

A prophylactic treatment protocol was used for evaluating the antiviral activity of compounds against Venezuelan Equine Encephalomyelitis virus infection of CD-1 outbred mice. Compounds submitted for *in vivo* evaluation were diluted in phosphate buffered saline (pH 7.2) if they were soluble or they were diluted and homogenized in 0.4% carboxymethylcellulose (CMC) in PBS if they were insoluble. Compounds were prepared at concentrations consistent with a dose volume of 0.1 ml of compound per 10 gm of body weight. Adequate compound was prepared for the entire treatment schedule unless the compound data sheet indicated that the compound was unstable. Unstable compounds were prepared immediately before administration. Diluted compounds are held at 4°C when not in use. All compound administration was by the subcutaneous route on an individual animal weight basis. Mice are challenged intraperitoneally with an LD₉₀ dose of virus in a volume of 0.5 ml of MEM/2% FCS. Fifteen female CD-1 mice (18-21 gm) were treated at each compound dose level on a qld x 7 schedule starting day -1. Because of compound quantity limitations, the highest dose of compound generally tested was 320 mg/kg with 4 serial half-log dilutions below this level. Treatment groups included the test compound dilutions as well as the diluent used for compound preparation. Controls included (1) untreated, uninfected animals, (2) untreated, infected animals, and (3) virus diluent treated animals. No positive control drug was available for this model.

3.5 Data Analysis and Processing

An R:Base 5000 data management program was supplied to us by Technassociates, Inc. All *in vitro* testing results generated at the BL-3 facility were entered into the data management program using a personal computer, then transferred via modem from the off-site containment laboratory to the central data office, located at the SRI home-site facilities, for further processing. Raw data from the home-site laboratories were directly submitted to this central data office for processing. Pertinent information, such as study identification, AVS number, drug concentrations, and individual test data, was entered into data forms within the data management program. Data were then cycled through a program that calculated the virus rating (VR), minimum toxic concentration (MTC), 50% inhibitory dose (ID₅₀), and therapeutic index (TI). Floppy diskettes containing these data were submitted to Technassociates, Inc. on a regular weekly basis for input into their VAX computer database. Periodically, an updated cumulative summary of all antiviral test results was routed internally to Task Leaders as well as to Technassociates, Inc.

Summaries of the raw *in vivo* data were sent to Technassociates, Inc. as they were produced. We are awaiting a program for entry of *in vivo* data into our computer so that we can transfer data directly to the VAX computer databank. Until this program is available, we will continue to submit copies of our raw data to Technassociates, Inc.

4. RESULTS

4.1 Antiviral Screening In Vitro: DNA Viruses and Exotic RNA Viruses

During the twelve-month reporting period from November 15, 1986 to November 15, 1987, a total of 1266 test compounds were received at SRI for evaluation in the primary *in vitro* antiviral screen. Compounds received in amounts too small for appropriate evaluation against all of the viruses were screened according to a priority list of the target viruses. In some instances, the testing of compounds against the exotic viruses was coordinated with the testing against Human Immunodeficiency Virus. During the reporting period *in vitro* screening evaluations continued against Vaccinia Virus (VV), Adenovirus (AD), Vesicular Stomatitis Virus (VSV), Punta Toro Virus (PT), Sandfly Fever Virus (SF), and Pichinde Virus (PIC). Of the four viruses requiring biosafety level 3 (BL-3) containment, screening operations were begun with Yellow Fever Virus (YF), Japanese Encephalitis Virus (JE), and Venezuelan Equine Encephalomyelitis Virus (VEE), and much progress was made in developing the Hantaan Virus (HTN; formerly referred to as Korean Hemorrhagic Fever Virus, KHF) assay. Results have been obtained for nearly all of the compounds submitted for assay against VV, AD, VSV, PT, SF, YF, and JE. Efforts are being made to increase the screening volume against VEE and PIC. A cumulative summary of the compound shipments received, and the assays performed, is presented in Table 2.

Approximately 6000 *in vitro* antiviral assays were performed this reporting period. The results for compounds found to be active are summarized in the sections below for each virus. Also, we began retesting compounds which showed the greatest activity in the initial CPE-inhibition assays in confirmatory CPE-inhibition assays and plaque-reduction assays. These results are also shown below. A cumulative summary presenting all of the *in vitro* antiviral test results (both positive and negative) is included as Appendix B.

4.1.1 Vaccinia Virus (VV)

Sixty-three compounds were identified as demonstrating significant antiviral activity against VV, as indicated by VR's of ≥ 1.0 and TI values >10 (see Table 1 in Appendix A for a complete listing). Fourteen of the active compounds (Table 3) exhibited remarkable efficacy and selectivity against VV, with VR's of ≥ 5.1 and TI's >100 . AVS-2875, AVS-2994, and AVS-3533 displayed the most potent inhibitory effect on VV, with VR's >7.0 and TI values >600 .

The results of retests of 24 compounds that demonstrated significant activity against VV in the primary screening assays are summarized on Table 4. The data listed beside the earliest test date of each compound represents results of the primary antiviral test.

As can be seen for each compound, the activity observed in the original evaluation was confirmed, as indicated by the similarities of the degree of CPE-inhibition (VR) and the selectivity (TI). The one exception was the retest of AVS-707, which showed only marginal activity. This compound will be retested a second time.

As quantities of compounds permit, the *in vitro* activity of the more active drugs can be quantitated by performing VV plaque-reduction assays in Vero cell cultures.

TABLE 2
PRIMARY IN VITRO ANTIVIRAL SCREEN:
TARGET VIRUSES AND NUMBERS OF COMPOUNDS TESTED THROUGH NOVEMBER 14, 1987

Shipment No.	Compounds Per Shipment	Date Received	PT	VEE	YFV	PIC	JE	SP	VV	AD2	VSV
1	28	5/2/86	28	6	26	24	27	24	25	25	25
2	27	5/23/86	25	23	25	23	25	25	23	23	23
3	32	6/3/86	32	32	32	31	32	32	--	--	1
4	19	6/20/86	19	11	19	19	19	19	14	14	14
5	22	7/10/86	22	22	20	16	21	19	21	21	21
6	26	7/24/86	26	3	26	--	26	26	26	26	26
7	26	7/31/86	25	--	26	--	26	26	26	26	26
8	27	8/22/86	27	--	27	--	27	26	26	26	26
9	42	9/12/86	42	--	39	--	36	28	24	24	24
10	28	9/25/86	28	--	28	--	28	28	28	28	28
11	32	10/17/86	32	--	32	--	32	32	32	32	32
12	39	11/3-11/4/86	39	1	39	1	39	39	39	39	39
13	23	11/13/86	20	--	19	--	21	21	23	23	23
14	1	11/13/86	1	1	1	--	1	1	1	1	1
15	26	12/5/86	26	--	26	--	--	26	26	26	26
16	32	12/12/86	31	--	32	--	--	32	32	32	32
17	30	1/13/87	30	--	30	--	30	30	30	30	30
18	32	1/30/87	32	--	32	--	32	32	32	32	32
19	101	3/2/87	96	55	88	--	99	88	101	101	101
20	71	3/18/87	69	6	60	--	49	64	46	46	46
21	75	4/14/87	74	--	50	--	68	45	57	56	56
22	49	5/5/87	46	7	43	--	46	41	46	46	46
24	77	6/3/87	53	--	5	--	5	5	7	7	7
25	8	6/12/87	6	--	6	--	7	7	8	8	8
26	71	6/26/87	27	--	65	--	71	65	66	66	70
27	85	7/21/87	73	--	22	--	46	74	45	45	42
28	102	8/10/87	1	--	1	--	11	1	11	11	11
29	116	8/19/87	--	--	--	--	4	1	7	7	7
30	75	9/3/87	--	--	--	--	24	--	29	29	30
31	86	9/11/87	--	--	--	--	53	--	20	20	--
32	123	10/9/87	--	--	--	--	--	--	29	29	15
33	107	11/3/87	--	--	--	--	--	--	--	--	--
Total:	1638		930	167	819	114	905	857	900	899	868

TABLE 3
COMPOUNDS ACTIVE AGAINST VACCINIA VIRUS^a

<u>AVS #</u>	<u>Shipment</u>	<u>VR</u>	<u>VR</u> *	<u>ID</u> ₅₀	<u>MTC</u>	<u>TI</u>
2875	26	7.3	2.4	0.3	320	1000
2994	27	7.1	2.4	0.1	100	916.8
3533	31	7.1	2.4	0.5	320	653.6
3534	31	6.8	2.3	0.7	320	433.7
2913	26	6.1	2.0	1.0	320	313.7
2911	26	6.2	2.1	1.0	320	309.9
2896	26	6.0	2.0	1.1	320	295.2
2895	26	5.8	1.9	1.3	320	251.3
2912	26	5.9	2.0	1.4	320	220.8
2888	26	5.3	1.8	2.3	320	139.0
2874	26	5.2	1.7	2.3	320	136.8
2890	26	5.3	1.8	2.4	320	134.1
2879	26	5.1	1.7	2.4	320	133.6
2995	27	5.2	1.7	3.1	320	104.5
2902	26	3.7	1.2	0.3	32	100.0
2904	26	4.0	1.3	3.2	320	100.0

a. Compounds identified by their AVS number are listed in descending order by activity. CPE-inhibition assays were done in Vero cells. The VR is a measurement of selective antiviral activity which takes into account the degree of inhibition of virus-induced CPE and the degree of cytotoxicity produced by the test compound, determined by a modification of the method of Ehrlich et al. (1965). VR is the designation for the virus rating calculated by the method of Sidwell and Huffman (1971). The drug concentration which reduced the CPE by 50% (50% inhibitory dose, ID₅₀) was calculated using a regression analysis program for semilog curve fitting and is expressed as $\mu\text{g/ml}$. The minimum cytotoxic drug concentration (MTC) is also expressed as $\mu\text{g/ml}$. The therapeutic index of a test compound was determined by dividing the MTC by the ID₅₀.

TABLE 4
CONFIRMATORY ASSAYS FOR COMPOUNDS
ACTIVE AGAINST VACCINIA VIRUS^a

<u>AVS #</u>	<u>Shipment</u>	<u>Date Tested</u>	<u>VR</u>	<u>VR</u> [*]	<u>ID</u> ₅₀	<u>MTC</u>	<u>TI</u>
707	30	10/22/87	1.95	0.65	16.9	100	5.91
		11/12/87	0.7	0.2	24.1	32	1.33
2700	22	6/25/87	3.25	1.08	1.06	3.2	3.03
		8/27/87	3.6	1.2	1.77	10	5.65
2873	26	7/16/87	3.3	1.1	10.7	>320	>29
		8/27/87	3.6	1.2	10.0	>320	>32
2874	26	7/16/87	5.2	1.7	2.34	>320	>136.75
		8/27/87	5.0	1.67	3.59	>320	>89.17
2875	26	7/16/87	≥7.3	≥2.4	<0.32	>320	>1000
		9/24/87	7.1	2.4	0.41	>320	>786
2879	26	7/16/87	5.1	1.7	2.4	>320	>133.6
		8/27/87	5.4	1.8	3.2	>320	>100.0
2888	26	7/16/87	5.3	1.8	2.3	>320	>139.03
		8/27/87	6.0	2.0	1.55	>320	>206.48
2889	26	7/16/87	4.3	1.4	6.37	>320	>50.2
		8/2/7/87	6.1	2.03	1.55	>320	>206.72
2890	26	7/16/87	5.3	1.8	2.4	>320	>134.1
		8/27/87	5.9	1.97	1.76	>320	>181.87
2891	26	7/16/87	4.7	1.6	3.7	>320	>86.9
		8/27/87	5.9	1.97	2.0	>320	>159.53
2895	26	7/16/87	5.8	1.9	1.27	>320	>251.28
		8/27/87	6.6	2.2	1.0	>320	>317.72
2896	26	7/30/87	≥6.0	≥2.0	1.08	>320	>295.2
		8/27/87	5.6	1.87	1.66	>320	>192.78
2902	26	7/30/87	3.75	1.25	0.32	32	100.0
		9/24/87	4.85	1.62	0.087	32	367.8
2903	26	7/30/87	4.4	1.47	4.99	>320	>64.01
		8/27/87	3.4	1.13	12.28	>320	>26.05
2904	26	7/30/87	4.0	1.33	3.2	320	100.0
		8/27/87	4.5	1.5	3.2	>320	100.0

TABLE 4 (cont.)

2911	26	7/30/87	6.2	2.07	1.03	>320	>309.95
		8/27/87	5.8	1.93	1.77	>320	>180.8
2912	26	7/30/87	5.9	1.97	1.45	>320	>220
		8/27/87	5.8	1.93	1.77	>320	>180.8
2913	26	7/30/87	6.1	2.03	1.02	>320	>313.7
		8/27/87	6.3	2.1	1.03	>320	>311.11
2994	27	9/4/87	7.1	2.37	0.109	100	916.8
		9/24/87	8.6	2.87	0.09	320	3564.3
2995	27	8/20/87	5.2	1.73	3.06	>320	>104.45
		9/24/87	4.5	1.5	6.84	>320	>46.81
3533	31	10/29/87	7.1	2.4	0.49	>320	>653.6
		11/12/87	≥ 7.1	≥ 2.4	0.311	>320	>1028.7
3534	31	10/29/87	6.8	2.27	0.738	>320	>433.7
		11/12/87	7.0	2.3	0.477	>320	>671.4
3535	31	10/29/87	2.3	0.8	55.1	>320	>5.8
		11/12/87	2.5	0.8	49.1	>320	>6.5
3593	32	10/22/87	4.2	1.4	0.3	10	39.5
		11/12/87	4.1	1.4	<0.3	1	>3.1

a. Compounds are listed in ascending numerical order by AVS number. The results from the primary and the subsequent confirmatory CPE-inhibition assays are listed chronologically for each compound. The abbreviations are defined in the footnote to Table 3.

4.1.2 Adenovirus Type 2 (AD)

The 10 compounds having the highest TI values against AD in HEP-2 cell cultures are shown in Table 5. Of these compounds AVS-2318 showed the greatest selectivity with an ID₅₀ of 0.3 µg/ml and a TI of 10. Compound AVS-2980 had the best VR of this group (2.1), with an ID₅₀ of 1.5 µg/ml and a TI of 6.8.

TABLE 5
COMPOUNDS ACTIVE AGAINST ADENOVIRUS TYPE 2^a

<u>AVS #</u>	<u>Shipment</u>	<u>VR</u>	<u>VR</u> *	<u>ID</u> ₅₀	<u>MTC</u>	<u>TI</u>
2318	13	1.7	0.6	0.3	3.2	10.0
2980	25	2.1	0.7	1.5	10	6.8
1211	27	1.3	0.4	4.9	32	6.5
2247	12	1.3	0.4	49.8	320	6.4
1215	27	1.1	0.4	62.9	320	5.1
1210	27	1.1	0.4	19.9	100	5.0
2988	27	1.0	0.3	70.9	320	4.5
2994	27	1.5	0.5	25.4	100	3.9
2409	16	1.4	0.5	2.8	10	3.6
2303	11	1.1	0.4	90.6	320	3.5

^a Compounds identified by their AVS number are listed in descending order by activity. CPE-inhibition assays were done in HEP-2 cells. The abbreviations are defined in the footnote to Table 3.

A total of 27 compounds were identified exhibiting significant activity as determined by VR's ≥ 1.0 and TI values >1.0 (Appendix A, Table 2). Two compounds not shown in Table 5 are of particular interest because of their unusually good VR values. AVS-2700 yielded a VR of 2.7 and a TI of 3.1. A VR of 2.7 and a TI value of 2.7 were obtained from the evaluation of AVS-3593. Both AVS-2700 and AVS-3593 displayed considerable efficacy against another DNA virus, VV. Secondary *in vitro* antiviral studies of these two compounds are indicated.

The results of confirmatory retests (employing our CPE-inhibition assay procedure) of four of the compounds which showed the greatest efficacy against AD are summarized in Table 6. The first data listed for each compound are from the primary evaluation.

The retests confirmed the activity observed in the original tests of AVS-2700, 2980, and 3593. The first retest of AVS-2318 confirmed the VR, but the TI was less. No activity was seen on the 9/24/87 retest of AVS-2318. However, on that date, the positive control drugs were less active than on many experiments. Retests performed on 9/24/87 should be repeated if additional quantities of the compounds are available.

We have developed a plaque-reduction assay in A549 (a continuous passage cell line derived from human lung carcinoma tissue) cell monolayers in Leibovitz's L-15 medium supplemented with 3% FBS in 0.5% agarose. We plan to evaluate our new plaque assay by testing the positive control drugs by the procedure. Subsequently we can utilize the new plaque assay procedure as a secondary test for compounds found to be active against AD by CPE-inhibition assay.

TABLE 6
 CONFIRMATORY ASSAYS FOR COMPOUNDS
 ACTIVE AGAINST ADENOVIRUS TYPE 2^a

<u>AVS #</u>	<u>Shipment</u>	<u>Date Tested</u>	<u>VR</u>	<u>VR</u> [*]	<u>ID</u> ₅₀	<u>MTC</u>	<u>TI</u>
2318	13	12/18/86	1.7	0.6	0.32	3.2	10.0
		9/4/87	1.8	0.8	3.59	10.0	2.79
		9/24/87	0.3	0.1	---	10.0	---
2700	22	6/25/87	2.7	0.9	0.32	1.0	3.13
		7/9/87	3.7	1.25	0.21	3.2	15.2
		9/4/87	3.6	1.2	0.45	10.0	22.26
		9/24/87	1.8	0.6	0.45	1.0	2.23
2980	25	7/9/87	2.1	0.7	1.47	10.0	6.79
		10/29/87	2.0	0.7	0.97	3.2	3.3
		11/12/87	1.5	0.5	1.47	3.2	2.17
3593	32	10/27/87	2.7	0.9	3.7	10.0	2.7
		11/12/87	1.9	0.6	1.7	>3.2	>1.8

a. Compounds are listed in ascending numerical order by AVS number. The results from the primary and the subsequent confirmatory CPE-inhibition assays are listed chronologically for each compound. The abbreviations are defined in the footnote to Table 3.

4.1.3 Vesicular Stomatitis Virus (VSV)

From the data presented in Table 7 it can be seen that 8 of the 627 compounds tested during this reporting period exhibited significant antiviral efficacy against VSV in L929 cells. Seven compounds (2503, 2906, 1159, 346, 2428, 2318, and 2463) exhibited VR's in the range of 1.0 to 4.1, ID₅₀'s in the range of 0.4 to 57.5 µg/ml, and TI values of 1.1 to 46. AVS-2350 (human recombinant interferon-gamma) was tested in Vero cells and reported in units. In the first assay of AVS-2350, a VR of 1.1 was obtained but a 50% endpoint was not reached, and therefore a TI could not be calculated. Since no cytotoxicity was observed at the highest drug concentration tested (20,000 units), the drug was retested using 200,000 units as the top drug dose. A VR of 1.9 was obtained and since no cytotoxicity was observed at 200,000 units, a TI of >316.6 was calculated. The actual activity of this drug may be more accurately indicated by the VR (1.1 and 1.9) rather than by the unusually high TI of >316.6. This drug will be retested in a confirmatory CPE-inhibition assay.

TABLE 7
COMPOUNDS ACTIVE AGAINST VESICULAR STOMATITIS VIRUS^a

AVS#	Shipment	VR	VR*	ID ₅₀	MTC	TI
2350	14	1.9	0.7	632 ^b	>200,000 ^b	316.62
2503	21	4.1	1.37	2.2	100	46
2906	26	2.1	0.7	7.8	<100	<12.8
1159	27	1.9	0.6	16	100	6.3
346	25	1.0	0.3	0.4	1.0	2.4
2428	17	1.0	0.33	57.5	100	1.7
2318	13	2.1	0.7	2.0	3.2	1.6
2463	18	2.2	0.72	9.3	10	1.1

^a Compounds identified by their AVS number are listed in descending order by activity. CPE-inhibition assays were done in L929 cells. The abbreviations are defined in the footnote to Table 3.

^b The ID₅₀ and MTC for AVS-2350 are expressed as units/ml.

The positive control drug for this virus system, AVS-303, was included in each assay. The VR ranged from 1.3 to 4.3, the ID₅₀ ranged from 0.6 to 18.5 µg/ml, and the TI ranged from 0.2 to 17.9. Major Mike Ussery suggested that a second positive control drug be included in each assay. The last two assays done during this reporting period included AVS-1 as a second positive control drug. This drug is only moderately active against VSV, but should demonstrate enough activity to serve the purpose of monitoring the variability of results from experiment to experiment. The VR's of the two tests done during this reporting period were 1.1 and 1.3, the ID₅₀'s were 77.9 µg/ml and 53.7 µg/ml, and the TI's were 0.1 and 1.9.

Since so few drugs are active against VSV, confirmatory tests have been done on all compounds appearing to be at least as active as the positive control drug (Table 8). The most active drug tested to date as measured by CPE-inhibition against VSV was AVS-2503.

TABLE 8
CONFIRMATORY ASSAYS FOR COMPOUNDS ACTIVE AGAINST
VESICULAR STOMATITIS VIRUS

AVS#	Shipment	Date Tested	VR	VR*	ID ₅₀	MTC	TI
346	25	7/10/87	0.95	0.32	0.41	1.0	2.42
		7/28/87	1.4	0.47	0.09	0.32	3.6
1159	27	7/28/87	1.9	0.63	15.95	100	6.27
		10/13/87	2.6	0.87	8.86	100	11.29
2503	21	5/5/87	4.1	1.37	2.17	100	46.1
		6/12/87	4.75	1.58	1.33	100	75.36
2906	26	7/17/87	2.1	0.7	7.8	<100	<12.81
		7/28/87	2.6	0.87	8.86	100	11.29

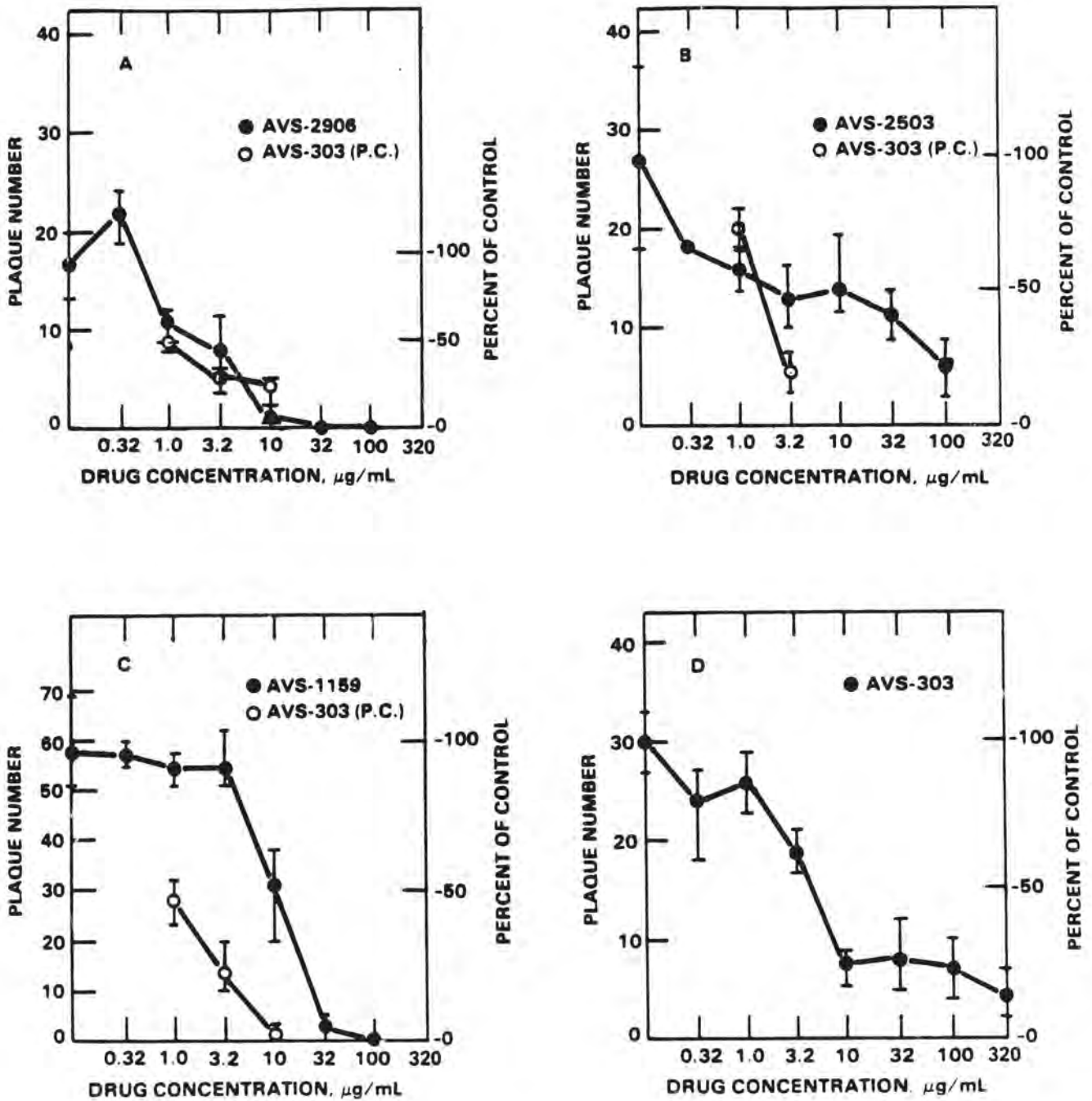
a. Compounds are listed in ascending numerical order by AVS number. The results from the primary and the subsequent confirmatory CPE-inhibition assays are listed chronologically for each compound. The abbreviations are defined in the footnote to Table 3.

Drugs which exhibited confirmed activity with a TI of 5.0 or greater were further tested in a plaque-reduction assay. Three test drugs and the positive control (AVS-303) were evaluated in the plaque-reduction assay (Table 9). The most active drug tested, AVS-2906, had an ID₅₀ of 1.9 $\mu\text{g/ml}$, an MTC of 32 $\mu\text{g/ml}$ and a TI of 16.6 (Figure 1A). AVS-2503, the most active drug in the CPE-inhibition assay, had an ID₅₀ of 7.4 $\mu\text{g/ml}$, an MTC of 100 $\mu\text{g/ml}$, and a TI of 13.6 (Figure 1B). AVS-1159 was the least active of the drugs tested with an ID₅₀ of 10.7 $\mu\text{g/ml}$, an MTC of 32 $\mu\text{g/ml}$, and a TI of 3.0 (Figure 1C). The positive control drug, AVS-303, had an ID₅₀ of 1.4 $\mu\text{g/ml}$, an MTC of 10 $\mu\text{g/ml}$, and a TI of 1.7 (Figure 1D).

TABLE 9
PLAQUE REDUCTION ASSAYS FOR
COMPOUNDS ACTIVE AGAINST VESICULAR STOMATITIS VIRUS^a

AVS#	Shipment	ID ₅₀	MTC	TI
2906	26	1.9	32	16.6
2503	21	7.4	100	13.6
303	1	1.4	10	7.4
1159	27	10.7	32	3.0

a. Compounds identified by their AVS number are listed in descending order by activity. Assays were done in L929 cells. The drug concentration which reduced the mean plaque number by 50% (50% inhibitory dose, ID₅₀) was calculated using a regression analysis program for semilog curve fitting and is expressed as $\mu\text{g/ml}$. The minimum cytotoxic drug concentration (MTC) is the lowest drug concentration ($\mu\text{g/ml}$) at which toxicity was observed. The therapeutic index (TI) was determined by dividing the MTC by the ID₅₀.



Plaque reduction assays with Vesicular Stomatitis Virus.

Figure 1.

4.1.4 Punta Toro Virus (PT)

A total of 59 compounds of the 810 tested exhibited significant antiviral efficacy against PT in Vero cells (see Appendix A Table 3). The 13 most active compounds are listed in Table 10. The most active and potent compound against this virus was compound AVS-2350 with a VR of 1.9, an ID₅₀ of 581 units/ml, a minimum toxic concentration of 20000 units/ml, and a calculated TI of 34.4. Beginning 9/28/87, both Ribavirin (AVS-0001) and Selenazole (AVS-0253) were incorporated into each assay as positive control compounds. Ribavirin has yielded VR's in the range of 1.2-3.0, ID₅₀'s in the range of 6.1-28.5 µg/ml, and TI values of 1.1-8.0. Selenazole has yielded VR's in the range 1.0-11.6, ID₅₀'s in the range of 2.6-70.1 µg/ml, and TI values of 1.1-18.8.

TABLE 10
COMPOUNDS ACTIVE AGAINST PUNTA TORO VIRUS^a

AVS#	Shipment	VR	VR*	ID ₅₀	MTC	TI
2350	14	1.9	0.6	581 ^b	20000 ^b	34.4
2269	12	2.5	0.8	0.032	1.0	31.2
2290	11	3.0	1.0	4.1	100	24.2
2712	22	2.3	0.8	0.1	1.0	19.4
2590	19	2.3	0.8	21.6	320	14.8
2309	11	3.3	1.1	8.2	100	12.2
2612	19	1.6	0.5	9.8	100	10.2
2279	11	1.4	0.5	3.2	32	10.1
2743	18	2.4	0.8	32	320	10
2573	19	>2.4	>0.8	33.5	>320	>9.5
2275	12	2.1	0.7	41.0	320	7.8
2363	15	1.8	0.6	4.2	32	7.6
2588	19	>2.9	>1.0	42.8	>320	>7.5

a. Compounds identified by their AVS number are listed in descending order by activity. CPE-inhibition assays were done in Vero cells. The abbreviations are defined in the footnote to Table 3.

b. The ID₅₀ and MTC for AVS-2350 are expressed in units/ml.

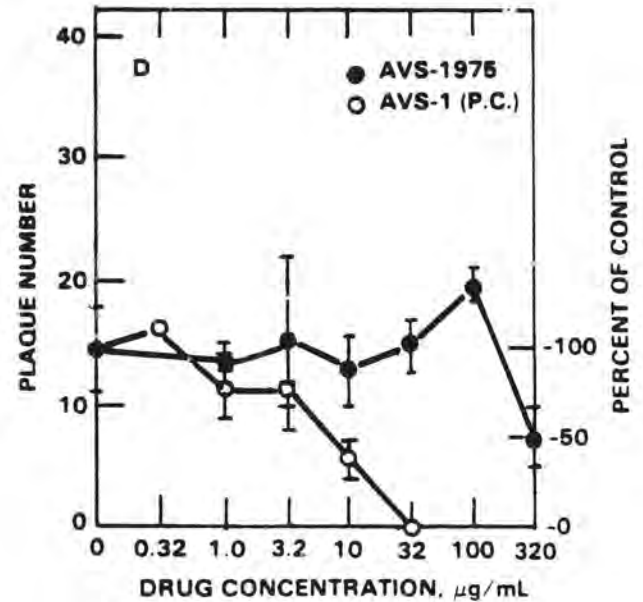
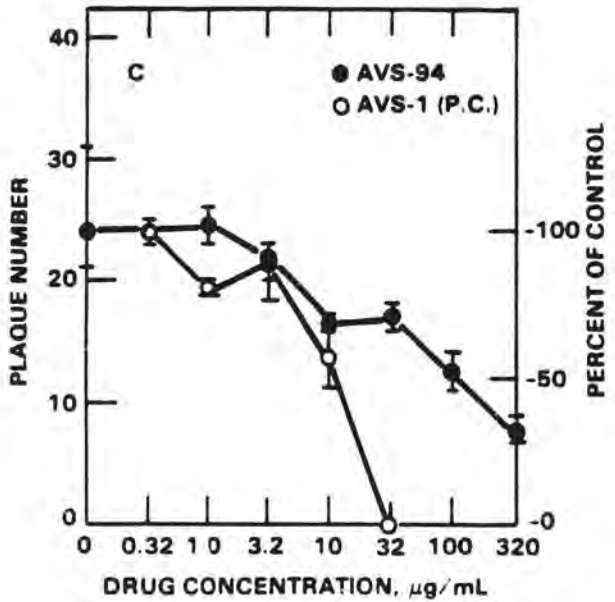
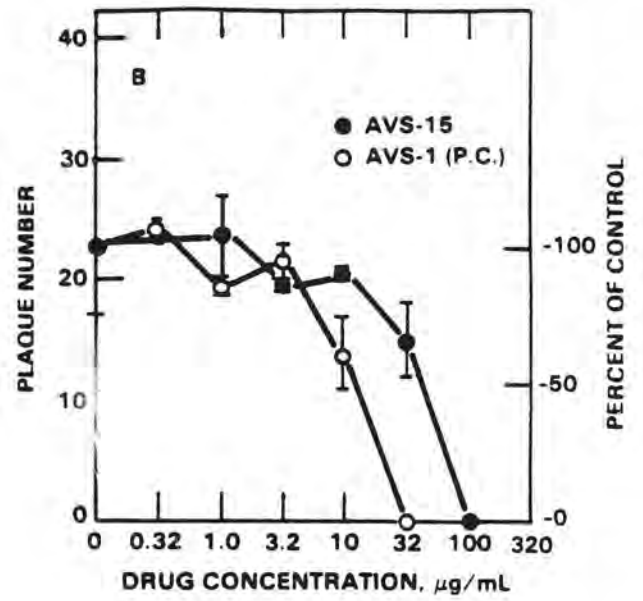
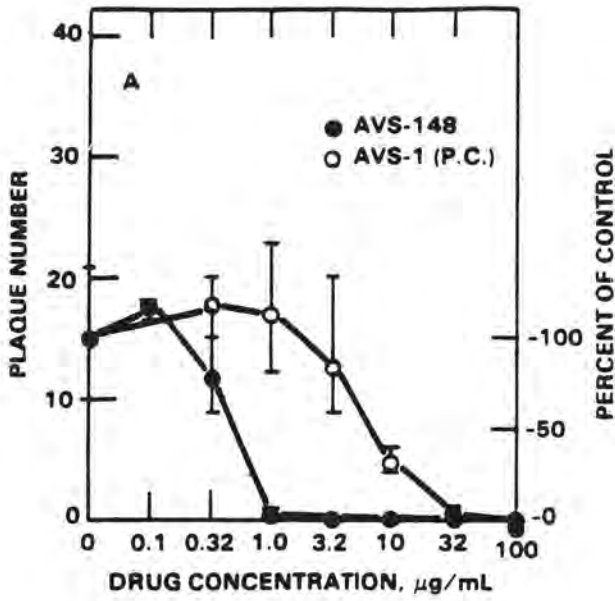
Table 11 shows the results of confirmatory CPE-inhibition assays performed on compounds found active against PT. Four of the 10 compounds, AVS-148, AVS-2290, AVS-2309, and AVS-2743, were confirmed as having activity against PT. Those compounds which were only tested one additional time and exhibited no antiviral activity will be tested one more time as compound supplies allow.

Four compounds exhibiting antiviral activity against PT were further tested in a confirmatory plaque-reduction assay. The results of these assays are shown in Figure 2 and summarized in Table 12. AVS-148 was the most potent of the compounds assayed (Figure 2A) with an ID₅₀ of 0.37 µg/ml. AVS-15 (Figure 2B) had an ID₅₀ of 37.9 µg/ml. The ID₅₀ values for AVS-94 and AVS-1975 were substantially higher in this assay (130 µg/ml and 312 µg/ml, respectively) than in the initial assay (10 µg/ml and 10.5 µg/ml, respectively).

TABLE 11
 CONFIRMATORY ASSAYS FOR COMPOUNDS ACTIVE
 AGAINST PUNTA TORO VIRUS^a

<u>AVS#</u>	<u>Shipment</u>	<u>Date Tested</u>	<u>VR</u>	<u>VR</u> [*]	<u>ID</u> ₅₀	<u>MTC</u>	<u>TI</u>
0068	1	9/19/86	2.4	0.8	2.4	32.00	13.3
0068		8/21/87	0.0	0.0	---	10.00	-0-
0068		9/21/87	0.1	0.0	---	10.00	-0-
0094	1	9/19/86	3.0	1.0	10.0	>320.00	>32.0
0094		8/21/87	0.2	0.1	---	100.00	-0-
0094		9/18/87	0.0	0.0	---	320.00	-0-
0113	1	9/19/86	2.0	0.7	3.2	32.00	10.0
0113		8/21/87	0.0	0.0	---	100.00	-0-
0113		9/21/87	0.2	0.1	---	100.00	-0-
0148	2	10/21/86	6.3	2.1	<0.32	320.00	>1000
0148		8/21/87	1.2	0.4	0.3	1.00	3.2
1975	1	10/9/86	2.7	0.9	10.5	320.00	30.5
1975		8/21/87	0.0	0.0	---	32.00	-0-
2290	11	12/1/86	3.0	1.0	4.1	100.00	24.2
2290		8/21/87	0.8	0.3	134.0	100.00	0.7
2290		9/21/87	1.7	0.6	80.4	100.00	1.2
2309	11	3/2/87	3.3	1.1	8.2	100.00	12.2
2309		8/21/87	2.9	1.0	8.9	320.00	35.8
2590	19	4/9/87	2.3	0.8	21.6	320.00	14.8
2590		8/21/87	0.8	0.3	132.0	100.00	0.8
2612	19	4/14/87	1.6	0.5	9.8	100.00	10.2
2612		8/21/87	0.2	0.1	---	100.00	-0-
2743	18	4/28/87	2.4	0.8	32.0	320.00	10.0
2743		8/21/87	1.1	0.4	118.0	320.00	2.7

a. Compounds are listed in ascending numerical order by AVS number. The results from the primary and the subsequent confirmatory CPE-inhibition assays are listed chronologically for each compound. The abbreviations are defined in the footnote to Table 3.



Plaque reduction assays with Punta Toro Virus.

Figure 2.

5975-7

TABLE 12
PLAQUE REDUCTION TEST FOR COMPOUNDS ACTIVE AGAINST PUNTA TORO VIRUS

<u>AVS#</u>	<u>Shipment</u>	<u>ID₅₀</u>	<u>MTC</u>	<u>TI</u>
148	2	0.37	100	267
15	1	37.9	100	2.6
94	1	130.0	320	2.5
1975	1	312.0	320	1.0
01	4	6.3,8.4,11.5	100,32,32	15.8,3.8,2.8

^aCompounds identified by their AVS numbers are listed in descending order by activity. Assays were done in Vero cells. The abbreviations are defined in the footnote to Table 3.

4.1.5 Sandfly Fever Virus (SF)

The 9 most active compounds against SF are listed in Table 13; 58 of the 722 compounds tested in the antiviral screen for efficacy against SF in Vero cells demonstrated inhibition of virus-induced CPE (Appendix A, Table 4). The most active compound in terms of antiviral selectivity was compound AVS-2350 (IFN- γ) with a calculated TI of 143.4. Ribavirin (AVS-0001) was the positive control compound of choice and during this period yielded VR's in the range 1.4 to 4.0, ID₅₀'s in the range 1.9 to 27.9 $\mu\text{g/ml}$, and TI values of 1.9-38.2. Although in September we began including Selenazole (AVS-0253) in each assay as a second positive control, it has not yielded VR and TI values considered to be active except one time. These results were a VR of 1.6, an ID₅₀ of 8.4 $\mu\text{g/ml}$, and a calculated TI of 1.2. The other eleven times AVS-0253 was tested in this assay, the TI values fell well below 1.0. Previously when Selenazole was used as a positive control compound (when supplies of ribavirin were depleted), it yielded VR's in the range of 2.1 to 3.4, ID₅₀'s in the range of 1.3 to 3.2 $\mu\text{g/ml}$, and TI values of 1.0 to 7.6. The TI values for Selenazole (AVS-253) have been substantially lower than reported in our previous reports. This is primarily due to an apparent increased toxicity of Selenazole in this assay.

TABLE 13
COMPOUNDS ACTIVE AGAINST SANDFLY FEVER VIRUS^a

<u>AVS#</u>	<u>Shipment</u>	<u>VR</u>	<u>VR</u> [*]	<u>ID₅₀</u>	<u>MTC</u>	<u>TI</u>
2350	14	2.7	0.9	140 ^b	20000 ^b	143.4
2325	13	2.4	0.8	1.0	100	100
2320	13	3.5	1.2	2.1	100	48.5
2907	26	2.8	0.9	16.4	320.0	19.5
2317	13	1.1	0.4	18.7	320	17.1
148	2	4.1, 3.9	1.4, 1.3	0.2, 0.3	3.2, 1	12.9, 3.3
2579	19	2.0	0.7	26.7	320.0	12.0
1210	27	2.9	1.0	27.9	320.0	11.5
2318	13	4.6	1.5	0.3	3.2	10

a. Compounds identified by their AVS number are listed in descending order by activity. CPE-inhibition assays were done in Vero cells. The abbreviations are defined in the footnote to Table 3.

b. The ID₅₀ and MTC for AVS-2350 are expressed in units/ml.

Table 14 shows the results of confirmatory CPE-inhibition assays performed on compounds found active against SF. Five of the 20 compounds were confirmed as having selective antiviral activity although none of these 5 had TI values as high as previously reported. All of these compounds will be tested one more time in the CPE-inhibition assay as time and compound supplies allow.

Confirmatory plaque-reduction assays on compounds found most active against SF virus were begun during the present reporting period. Conditions for the test were worked out using the control compound Ribavirin (AVS-001). Results only for Ribavirin (AVS-001) are available at this time. In this assay, Ribavirin yielded an ID₅₀ of 19.7 µg/ml, an MTC of 100.0 µg/ml, and a calculated TI of 5.1, all of which are within the ranges of activity of this drug in the CPE-inhibition assay.

4.1.6 Pichinde Virus (PIC)

The data summarized in Table 15 represents the results of compounds found to be most active against Pichinde virus in Vero cell cultures using a plaque-reduction assay. Twenty-two (22) of the 101 compounds tested (approx. 22%) demonstrated significant antiviral efficacy against PIC *in vitro* (Appendix A, Table 5). Five of the compounds had TI values >10. The compound that exhibited the greatest inhibitory activity against PIC was AVS-646, followed by AVS-148. The results from plaque-reduction assays with these compounds (Figure 3A and 3B, respectively), as well as for AVS-140 (Figure 3C) and AVS-01 (Figure 3D), are graphed in Figure 3. The top five compounds would appear to be good candidates for evaluation as chemotherapeutic agents against PIC infections in MHA strain hamsters.

4.1.7 Venezuelan Equine Encephalomyelitis Virus (VEE)

Since the initiation of screening antiviral agents against VEE began in April, 1987, nineteen agents (approx. 11%) exhibited significant activity (Appendix A, Table 6). The VR's of these active agents ranged from 1.0 to 3.7 while TI values ranged from 1.4 to 71.2. The 8 most active compounds are listed in Table 16. The agent that exhibited the greatest antiviral activity against VEE was AVS-2350 (human recombinant IFN-γ) which had an ID₅₀ of 2.8 units/ml or 0.14 ng/ml. The TI of AVS-2350 was more than twice that of AVS-1089 which had an ID₅₀ of 2.8 µg/ml. Since compounds AVS-1089 and AVS-257 had TI's of 10 or greater, they would appear to be appropriate candidates for evaluation as chemotherapeutic agents against VEE in mice. *In vivo* studies for AVS-2350 would require primate models.

TABLE 14
CONFIRMATORY ASSAYS FOR COMPOUNDS ACTIVE AGAINST
SANDFLY FEVER VIRUS^a

<u>AVS#</u>	<u>Shipment</u>	<u>Date Tested</u>	<u>VR</u>	<u>VR</u> [*]	<u>ID</u> ₅₀	<u>MTC</u>	<u>TI</u>
0079	1	10/8/86	>5.5	>1.8	0.65	>100	>154
0079		7/27/87	1.0	0.4	72.2	10.0	0.1
0084	1	10/8/86	4.4	1.5	1.3	320	246
0084		7/27/87	1.1	0.4	17.2	1.0	0.1
0094	1	10/8/86	>4.7	>1.6	1.3	>320	>246
0094		8/18/87	0.4	0.1	---	32.0	-0-
0139	1	10/8/86	1.9	0.6	<0.001	1.0	>1000
0139		8/18/87	0.2	0.1	---	0.32	-0-
0148	2	10/14/86	3.6	1.2	2.3	32	13.8
0148		11/18/86	4.1	1.4	0.2	3.2	2.9
0148		12/15/86	3.9	1.3	0.3	1.0	3.3
0148		8/18/87	0.5	0.2	0.7	1.0	1.4
0206	4	10/29/86	3.7	1.2	22.6	320	14.2
0206		8/7/87	2.2	0.7	21.6	100.0	4.6
0360	2	10/17/86	2.5	0.8	0.02	0.32	16
0360		11/5/86	1.8	0.6	0.32	1.0	3.1
0360		8/18/87	1.7	0.6	0.1	0.01	0.1
0646	2	10/17/86	4.2	1.4	<0.1	3.2	>32
0646		11/5/86	4.3	1.4	0.6	10	16.7
0646		8/18/87	0.8	0.3	0.4	0.32	0.8
1089	5	11/3/86	5.2	1.7	1.0	>100	>100
1089		7/27/87	3.4	1.1	1.1	3.2	3.0
1983	2	10/22/86	3.0	1.0	0.32	32	100
1983		8/18/87	0.0	0.0	---	100.0	-0-
1984	2	10/22/86	2.9	1.0	1.0	32	32
1984		8/18/87	0.0	0.0	---	32.0	-0-
1985	2	10/22/86	3.7	1.2	6.1	>100	>16.4
1985		7/28/87	2.5	0.8	4.6	10.0	2.2
2160	9	10/31/86	3.1	1.0	<0.32	32	>100
2160		7/27/87	1.7	0.6	3.3	1.0	0.3
2188	9	10/31/86	2.6	0.9	<0.32	32	>100
2188		8/18/87	0.2	0.1	---	1.0	-0-

TABLE 14 (cont.)

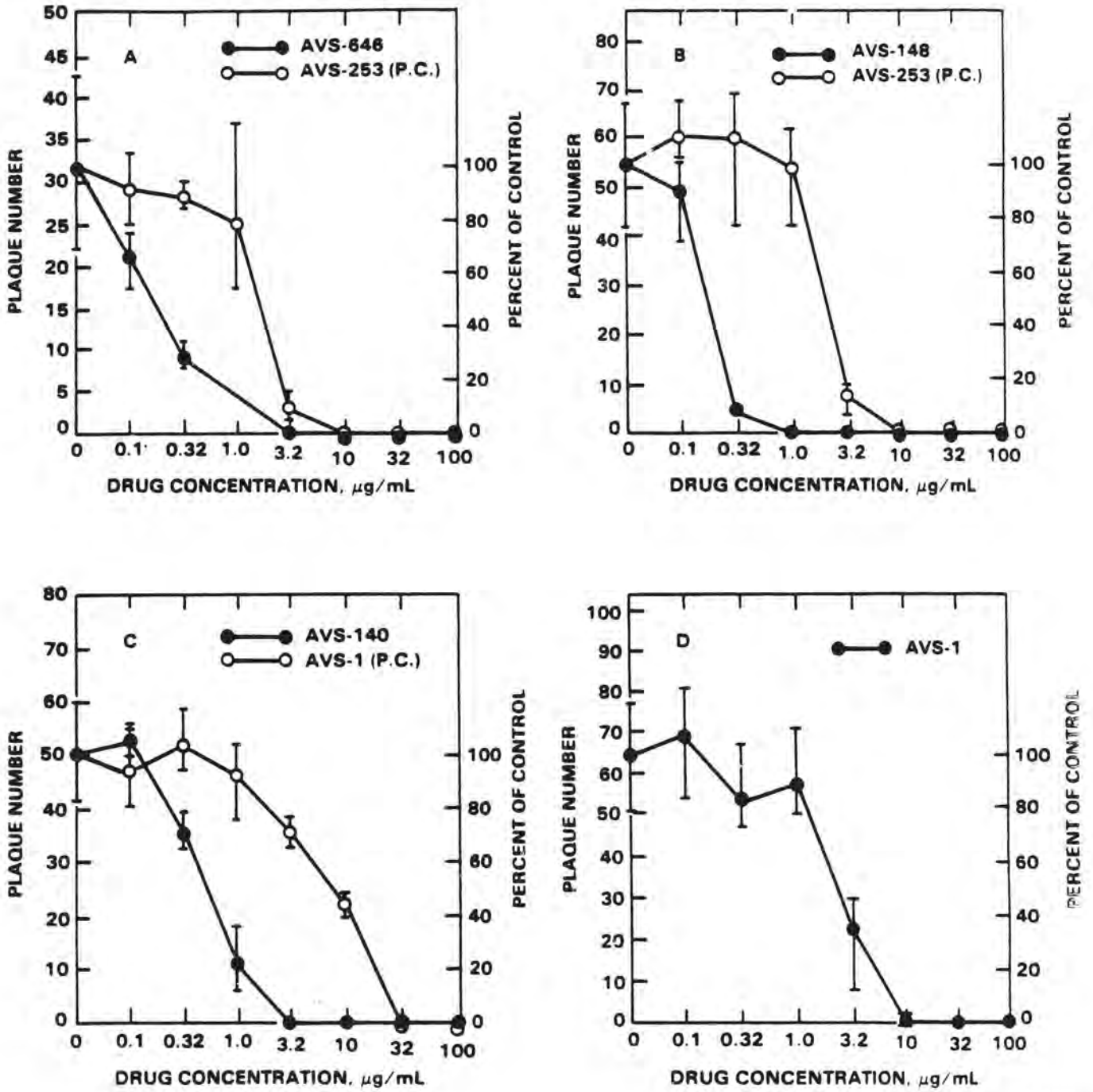
2219	10	11/12/86	2.5	0.8	2.5	32	12.8
2219		7/28/87	1.0	0.4	8.3	3.2	0.4
2220	10	11/12/86	3.2	1.1	<0.32	32	100
2220		7/27/87	1.0	0.3	26.4	10.0	0.4
2317	13	12/15/86	1.1	0.4	18.7	320	17.1
2317		8/18/87	0.0	0.0	---	100.0	-0-
2318	13	12/15/86	4.6	1.5	0.3	3.2	10
2318		7/28/87	2.5	0.8	0.3	1.0	3.1
2320	13	12/15/86	3.5	1.2	2.1	100	48.5
2320		7/28/87	3.4	1.1	0.8	3.2	4.3
2325	13	12/15/86	2.4	0.8	1.0	100	100
2325		8/18/87	0.0	0.0	---	320.0	-0-

a. Compounds are listed in ascending numerical order by AVS number. The results from the primary and the subsequent confirmatory CPE-inhibition assays are listed chronologically for each compound. The abbreviations are defined in the footnote to Table 3.

TABLE 15
COMPOUNDS ACTIVE AGAINST PICHINDE VIRUS^a

AVS #	Shipment	ID ₅₀	MTC	TI
646	2	0.1,0.4	100,>10	>680.7,>26.9
148	2	0.2,0.7	100,>100	588.7,>150.9
140	4	0.5	>100	>208.2
1	4	2.5,3.7	>100,32	>40.1,8.7
95	2	9.1	>100	>10.9
1985	2	4.7	32	6.9
332	4,5	17.5	>100	>5.7
360	2	0.2	1	5.5

a. Compounds identified by their AVS numbers are listed in descending order by activity. Assays were done in Vero cells. The drug concentration which reduced the mean plaque number by 50% (50% inhibitory dose, ID₅₀) was calculated using a regression analysis program for semilog curve fitting and is expressed as $\mu\text{g/ml}$. The minimum cytotoxic drug concentration (MTC) is the lowest drug concentration at which toxicity was observed. This is also expressed as $\mu\text{g/ml}$. The therapeutic index of a test compound was determined by dividing the MTC by the ID₅₀.



Plaque reduction assays with Pichinde Virus.

Figure 3.

TABLE 16
COMPOUNDS ACTIVE AGAINST VENEZUELAN
EQUINE ENCEPHALOMYELITIS VIRUS

<u>AVS#</u>	<u>Shipment</u>	<u>VR</u>	<u>VR*</u>	<u>ID₅₀</u>	<u>MTC</u>	<u>TI</u>
2350	14	2.9	1.0	2.8 ^b	200 ^b	71.2
1089	5	3.4	1.1	2.8	100	35.1
257	5	3.7	1.2	3.2	32	10.0
1	4	2.5,2.0	0.8,0.7	11.3,7.3	100,10	8.9,1.4
2631	19	1.8	0.6	56.7	320	5.6
1160	5	3.4	1.1	5.8	32	5.5
2597	19	1.3	0.4	73.4	320	4.4
2576	19	1.5	0.5	78.2	320	4.1

a. Compounds identified by their AVS number are listed in descending order by activity. Assays were done in Vero cells. The abbreviations are defined in the footnote to Table 3.

b. The ID₅₀ and MTC for AVS-2350 are expressed in units/ml.

4.1.8 Yellow Fever Virus (YF)

Fifty-five (55) of the 828 total compounds tested for antiviral efficacy against YF exhibited inhibition of virus-induced CPE (Appendix A, Table 7); the most active of these are listed in Table 17. By far, the most active compound against YF was AVS-2350 (IFN- γ) with a VR of 3.5, an ID₅₀ of 84.4 units/ml, an MTC of 20,000 units/ml, and a calculated TI of 237.1. Selenazole (AVS-253) is the only positive control compound used in this assay since Ribavirin (AVS-001) does not show antiviral activity according to our set parameters. Selenazole yielded VR's in the range of 1.4-3.8, ID₅₀'s in the range 0.2-5.9 μ g/ml, and TI values of 1.0-13.7.

TABLE 17
COMPOUNDS ACTIVE AGAINST YELLOW FEVER VIRUS^a

<u>AVS#</u>	<u>Shipment</u>	<u>VR</u>	<u>VR*</u>	<u>ID₅₀</u>	<u>MTC</u>	<u>TI</u>
2350	14	3.5	1.2	84.4 ^b	20000 ^b	237.1
2630	19	3.8	1.3	6.4	320	49.8
1983	2	3.2	1.1	7.4	320	42.9
2305	11	2.5	0.8	2.7	100	36.7
1985	2	3.8	1.3	1.2	32	26.3
2275	12	3.2	1.1	13.1	320	24.4
1976	1	2.9	0.9	18.0	320	17.7
253	5	3.8,2.0	1.3,0.7	0.7,3.0	10,3.2	13.7,1.1
1975	1	2.3	0.8	24.2	320	13.2
646	2	3.1	1.0	0.2	3.2	13.0
703	5	3.0	1.0	2.5	32	13.0
2906	26	2.3	0.8	24.7	320.0	13.0
1978	1	1.9	0.6	31.5	320	10.2
303	1	2.6	0.8	10.0	100	10.0
2563	21	2.3	0.8	0.3	3.2	10.0

a. Compounds identified by their AVS number are listed in descending order by activity. CPE-inhibition assays were done in Vero cells. The abbreviations are defined in the footnote to Table 3.

b. The ID₅₀ and MTC for AVS-2350 are expressed in units/ml.

Eleven compounds were tested again in the CPE-inhibition assay as a means of confirming data reported during previous reporting periods (Table 18). Of these, only one, AVS-2630 exhibited a calculated TI close to the level reported previously. Only three of these eleven compounds (AVS-2630, 1985, and 1975) would again be considered as having selective antiviral efficacy against YF. These assays will be repeated as time and compound supplies allow.

TABLE 18
CONFIRMATORY ASSAYS FOR COMPOUNDS ACTIVE AGAINST
YELLOW FEVER VIRUS^a

<u>AVS#</u>	<u>Shipment</u>	<u>Date Tested</u>	<u>VR</u>	<u>VR*</u>	<u>ID₅₀</u>	<u>MTC</u>	<u>TI</u>
0303	1	1/15/87	2.6	0.8	10.0	100	10.0
0303		8/19/87	1.1	0.4	100.0	0.32	-0-
0646	2	3/6/87	3.1	1.0	0.2	3.2	13.0
0646		8/19/87	0.6	0.2	0.5	0.032	0.1
0703	5	2/2/87	3.0	1.0	2.5	32	13.0
0703		7/29/87	1.3	0.4	17.4	10.0	0.6
1975	1	1/16/87	2.3	0.8	24.2	320	13.2
1975		7/29/87	1.6	0.5	19.7	32.0	1.6
1976	1	1/16/87	2.9	0.9	18.0	320	17.7
1976		8/19/87	0.4	0.1	---	3.2	-0-
1978	1	1/20/87	1.9	0.6	31.5	320	10.2
1978		8/19/87	0.0	0.0	---	3.2	-0-
1983	2	1/23/87	3.2	1.1	7.4	320	42.9
1983		8/19/87	0.2	0.1	---	32.0	-0-
1985	2	1/23/87	3.8	1.3	1.2	32	26.3
1985		7/29/87	2.7	0.9	3.9	10.0	2.6
2275	12	2/19/87	3.2	1.1	13.1	320	24.4
2275		8/19/87	0.5	0.2	79.6	10.0	0.1
2305	11	2/13/87	2.5	0.8	2.7	100	36.7
2305		8/19/87	0.2	0.1	---	32.0	-0-
2630	19	4/17/87	3.8	1.3	6.4	320	49.8
2630		7/29/87	3.8	1.3	2.6	100.0	38.3

a. Compounds are listed in ascending numerical order by AVS number. The results from the primary and the subsequent confirmatory CPE-inhibition assays are listed chronologically for each compound. The abbreviations are defined in the footnote to Table 3.

4.1.9 Japanese Encephalitis Virus (JE)

A total of 53 compounds out of the 920 tested this period in the antiviral screen for efficacy against JE in Vero cells demonstrated inhibition of virus-induced CPE (Appendix A, Table 7); the most active of these are listed in Table 19. The most active compound, in terms of antiviral selectivity, was compound AVS-2350 (IFN- γ) with a calculated TI of 56,182.

Beginning 9/30/87, both Ribavirin (AVS-001) and Selenazole (AVS-253) were used routinely as positive control compounds (previously only Selenazole was used). Ribavirin yielded VR's in the range of 1.0 to 2.5, ID₅₀'s in the range 12.6-81.9 $\mu\text{g/ml}$, and TI values of 1.2-7.9. Selenazole yielded VR's in the range 1.7-4.2, ID₅₀'s in the range 0.2-5.9 $\mu\text{g/ml}$, and TI values of 1.0-47.3.

The CPE-inhibition assay was repeated for three compounds with TI values of 10.0 or greater as reported previously. Two of these compounds (AVS-136 and AVS-2318) exhibited antiviral activity in the repeat assays. All three compounds will be tested a third time as time and supply allow. Results are shown in Table 20.

4.1.10 Hantaan Virus (HTN)

Our initial attempts at plaquing HTN were unsuccessful. However, reagents and cells supplied to us by Mr. Orville Brand and Dr. John Huggins of USAMRIID enabled us to successfully obtain plaques. New reagents have been screened and standardized so as to reduce our dependence on the limited USAMRIID reagents. During this testing several concerns arose which delayed our implementation of the HTN plaque-reduction assay. We reproducibly obtained a titer for the seed stock of HTN (strain 76-118) that was at least 100-fold lower than the reported titer ($2.5-8.6 \times 10^4$ pfu/ml vs. 8×10^6 pfu/ml). A variety of plaque morphologies was often observed with many plaques appearing to be lytic. Also the uptake of neutral red stain by the target cell monolayer was often non-uniform making distinction of plaques difficult.

Since CPE was visible in our plaque assays, we attempted a CPE endpoint titration of the virus stock. Cells were plated in the wells of 96-well plates at a density of 1.5×10^4 cells per well. After growth for 24 hr. in MEM containing Earles salts (GIBCO) and the various USAMRIID supplements, the medium was removed and 0.1 ml of medium containing the virus inoculum was added. Plates were incubated at 37°C in a humidified 5% CO₂ atmosphere. On day 6 post-infection, 0.1 ml of fresh medium was added to each well. On days 12 and 17, 0.1 ml of medium in each well was replaced with fresh medium. On day 19 post-infection a CPE titer of approximately $10^{4.5}$ TCID₅₀/ml was determined. Cell lysis at the lowest dilution (undiluted virus) was observed beginning 4 days after infection. A repeat of this experiment gave the same endpoint titer, but differed slightly in the time course of the infection.

All of these observations made us start to question the purity of our virus stock. A neutralization assay of our virus sample with a HTN-specific antiserum would permit the simplest verification of virus purity. However, an appropriate antiserum for this test has not been available to us. From discussions with Dr. Huggins and Dr. Ussery during their September visit to SRI, it was decided that our original virus stock was unsuitable, and that a new stock would be provided to us. This was received in early November and work with it is in progress.

TABLE 19
COMPOUNDS ACTIVE AGAINST JAPANESE ENCEPHALITIS VIRUS^a

<u>AVS#</u>	<u>Shipment</u>	<u>VR</u>	<u>VR</u> *	<u>ID</u> ₅₀	<u>MTC</u>	<u>TI</u>
2350	14	6.6	2.2	0.4 ^b	20000 ^b	56182
2980	25	2.3	0.8	0.6	10.0	16.0
2318	13	3.3	1.1	0.7	10	13.6
136	4	2.1	0.7	30.6	320	10.4
2625	19	1.0	0.3	31.6	320	10.1
1985	2	2.6	0.9	3.9	32	8.1
0712	30	2.0	0.7	12.7	100.0	7.8
1089	5	4.2	1.4	0.4	3.2	7.1
2711	22	2.2	0.7	50.4	320.0	6.3
215	1	3.4	1.1	0.6	3.2	5.5
94	1	>1.8	>0.6	19.3	>100	>5.2
2503	21	3.6	1.2	0.2	1.0	5.1
2979	25	1.5	0.5	6.3	32.0	5.1
2563	21	1.0	0.3	0.6	3.2	5.0

a. Compounds identified by their AVS number are listed in descending order by activity. CPE-inhibition assays were done in Vero cells. The abbreviations are defined in the footnote to Table 3.

b. The ID₅₀ and MTC for AVS-2350 are expressed in units/ml.

TABLE 20
CONFIRMATORY ASSAYS FOR COMPOUNDS ACTIVE
AGAINST JAPANESE ENCEPHALITIS VIRUS^a

<u>AVS#</u>	<u>Shipment</u>	<u>Date Tested</u>	<u>VR</u>	<u>VR</u> *	<u>ID</u> ₅₀	<u>MTC</u>	<u>TI</u>
0136	4	3/20/87	2.1	0.7	30.6	320	10.4
0136		7/28/87	1.9	0.6	94.5	320.0	3.4
2318	13	5/5/87	3.3	1.1	0.7	10	13.6
2318		7/28/87	2.5	0.8	0.5	3.2	6.3
2625	19	5/11/87	1.0	0.3	31.6	320	10.1
2625		7/28/87	0.0	0.0	---	100.0	-0-

a. Compounds are listed in ascending numerical order by AVS number. The results from the primary and the subsequent confirmatory CPE-inhibition assays are listed chronologically for each compound. The abbreviations are defined in the footnote to Table 3.

The variability which seems to be inherent in the HTN plaque-reduction assay has caused us to consider alternative assay methods. One very attractive approach is to use an ELISA-based screen for antiviral activity. Dr. Huggins has work in progress at USAMRIID on such an assay system. We have also been exploring alternative assays.

One assay we investigated was a cell fusion assay described by Arikawa *et al.*(1985). Arikawa and coworkers stated that under acidic pH, infection by viruses causing hemorrhagic fever with renal syndrome (HTN strain 76-118 included) caused cell-to-cell fusion from within. The procedure involved infecting Vero C1008 cells with dilutions of Hantaan virus. After 4 days of incubation, the infected cultures were rinsed, the pH was lowered to 5.5, and the cultures were incubated at 37°C for 1 hour. Subsequent to the treatment, the cultures were again rinsed, fixed with methanol and stained with Giemsa. Inconclusive results lead us to repeat the assay, increasing the infection time to 6 days, and exposing the cultures to pH 5.5 for 4 hours. Cell fusion was observed; however, in our hands the assay does not appear to have any advantages over the basic plaque assay. Current efforts are geared toward using an agarose overlay in the assay to obtain discrete areas of fusion.

Since Hantaan virus infection does not typically induce obvious CPE, another alternate test based on the uptake and metabolism of a tetrazolium salt by viable cells was examined. The test, as described by Tada *et al.*(1986), is based on the assay of mitochondrial enzymes using 3-(4,5-dimethyl-thiazol-2-yl)-2,5-diphenyltetrazolium bromide (MTT) as the substrate. The MTT is reduced by viable cells from a pale yellow to a dark blue. The cells are lysed and the absorbance of the reaction product can then be measured using basic spectrophotometry. In our experiment Vero C1008 cells were infected with a tenfold dilution of HTN. Samples were processed with MTT at 4, 5, 7, 9, 10, 11 and 12 days after infection. The results showed what appeared to be cycles of infection by the virus, as demonstrated by periodic peaks and valleys in absorbance values over time. Although this method is very promising for viruses causing definite CPE, it may have limited usefulness with HTN since we obtained only marginal differences in the absorbance readings between the HTN-infected and uninfected cultures.

Our current plans call for setting up standard plaque-reduction antiviral assays with the newly obtained stock of HTN. Once the ELISA-based screening procedure is finalized, we hope to use it as our primary screen for HTN antiviral activity. The ELISA system currently seems to be the only practical option for the high-volume screening of compounds against HTN called for in this contract.

4.2 Antiviral Screening *In Vitro*: Retroviruses

4.2.1 Primary Screening-HIV

4.2.1.1 USAMRIID compounds

The primary screening activity for this second annual reporting period with HIV is summarized in Table 21. Approximately 500 compounds supplied to us from USAMRIID have been screened in the primary ATH8 cell assay for antiviral activity against HIV. Although the ATH8 human T-cell line has proven to be very sensitive in detection of HIV antiviral activity, it has been a troublesome cell line to maintain in quantity on a regular basis for use in assays.

TABLE 21

PRIMARY IN VITRO ANTIVIRAL SCREEN:
 TARGET VIRUSES AND NUMBER OF COMPOUNDS
 TESTED AS OF OCTOBER 31, 1987

<u>Shipment No</u>	<u>Source</u>	<u>Compounds per Shipment</u>	<u>Date Received</u>	<u>HIV</u>	<u>FeLV</u>	<u>SRV2</u>	<u>MLV1</u>
9	USAMRIID	16	09/12/86	16	16	2	1
11	USAMRIID	38	10/17/86	34	38	1	0
12	USAMRIID	7	11/03 - 04/86	7	7	0	0
13	USAMRIID	40	11/13/86	37	2	0	0
15	USAMRIID	26	12/05/86	26	1	0	0
16	USAMRIID	32	12/12/86	32	0	0	0
17	USAMRIID	31	01/13/87	27	0	0	0
18	USAMRIID	30	01/30/87	27	0	0	0
19	USAMRIID	101	03/02/87	96	0	0	0
20	USAMRIID	71	03/18/87	66	0	0	0
21	USAMRIID	85	04/14/87	66	1	0	0
22	USAMRIID	89	05/05/87	57	1	0	0
23	USAMRIID	4	05/08/87	4	0	0	0
24	USAMRIID	7	06/03/87	0	0	0	0
25	USAMRIID	9	06/12/87	0	0	0	0
26	USAMRIID	67	06/26/87	0	0	0	0
27	USAMRIID	46	07/21/87	0	0	0	0
28	USAMRIID	11	08/10/87	0	0	0	0
29	USAMRIID	6	08/19/87	0	0	0	0
30	USAMRIID	134	09/03/87	0	0	0	0
31	USAMRIID	110	09/11/87	0	0	0	0
32	USAMRIID	130	10/09/87	0	0	0	0
Cumulative Total		1090		495	66	3	1

Table 22 lists the most active compounds, based on the therapeutic index and virus rating, identified in our primary screening. All of these compounds appeared to be very potent, with 6 of them, AVS-999, AVS-2353, AVS-2623, AVS-1764, AVS-206 and AVS-1603, having an ID₅₀ of 0.1 µg/ml or lower. Several of these compounds appeared very active, having VR values greater than 4, with AVS-2576 having a VR of 5.2. Dideoxycytidine (ddC) was included with each set of assays as a positive control drug. It typically had a VR of 4 or greater and an ID₅₀ of <0.1 µg/ml. A complete listing of all the USAMRIID compounds found active in the primary HIV screen is presented in Appendix A, Table 9.

TABLE 22
COMPOUNDS ACTIVE AGAINST HUMAN IMMUNODEFICIENCY VIRUS^a

<u>AVS#</u>	<u>Shipment</u>	<u>VR</u>	<u>VR*</u>	<u>ID₅₀</u>	<u>MTC</u>	<u>TI</u>
0999	9	3.5	1.2	<0.1	100	>1000
2353	11	4.2	1.4	<0.1	>100	>1000
2276	11	4.3	1.4	0.2	100	498.5
2623	19	3.1	1.0	<0.1	32	>320
1764	22	3.1	1.0	<0.1	32	>320
2285	11	4.4	1.5	0.4	>100	>253.5
1790	21	2.6	0.9	0.5	100	183.7
2572	19	4.7	1.6	1.0	100	100
0206	9	2.0	0.7	0.1	10	100
1603	N/A ^b	4.2	1.4	<0.1	10	>100
2576	19	5.2	1.7	1.0	100	100
2575	19	4.5	1.5	1.5	>100	>69
2574	19	3.6	1.2	1.6	100	64
2567	21	3.4	1.1	1.8	>100	>54

a. Compounds identified by their AVS number are listed in descending order by activity. Assays were done in ATH8 cells. The abbreviations are defined in the footnote to Table 3.

b. AZT (not applicable).

Compounds exhibiting HIV antiviral activity in the initial ATH8 cell assay were retested in ATH8 cells to confirm the activity. The results of these confirmatory assays are presented in Table 23. Antiviral activity was confirmed for many of the compounds. Some of the best compounds, based on the VR and TI values, appeared to be AVS-999, AVS-2353, AVS-2393, and AVS-2576. Compounds having confirmed activity were further evaluated in additional assays (see below).

TABLE 23

CONFIRMATORY ASSAYS FOR COMPOUNDS ACTIVE
AGAINST HUMAN IMMUNODEFICIENCY VIRUS^A

58

AVS #	Shipment	Date Tested	VR	VR*	ID ₅₀	MTC	TI
1	9	01/26/87	1.5	0.5	0.8	3.2	4.0
		07/08/87	2.0	0.7	-	10	-
206	9	01/29/87	2.0	0.7	0.1	10	100
		10/19/87	1.9	0.6	-	10	-
999	9	01/29/87	3.6	1.2	<0.1	100	>1000
		03/16/87	1.9	0.6	2.2	32	15
		10/19/87	3.3	1.1	0.3	100	313
1790	21	07/16/87	2.6	0.9	0.5	100	184
		11/06/87	0	0	-	32	-
2274	12	03/11/87	1.2	0.4	0.3	3.2	10
		06/30/87	0	0	-	<100	-
2275	12	03/16/87	1.0	0.3	-	10	-
		06/30/87	0	0	-	32	-
2276	11	01/26/87	4.3	1.4	0.2	100	499
		06/16/87	0	0	-	≤0.1	-
		06/25/87	0.5	0.2	-	10	-
		06/30/87	0	0	-	32	-
2278	11	02/13/87	1.4	0.5	1.8	100	56
		06/17/87	0	0	-	≤0.1	-
2285	11	02/03/87	4.4	1.5	0.4	>100	>253
		07/01/87	1.7	0.6	-	100	-
2332	12	03/11/87	1.7	0.6	-	>100	-
		06/25/87	1.8	0.6	-	>100	-
		07/01/87	1.1	0.4	-	>100	-
		07/08/87	2.0	0.7	5.7	100	18
2340	12	03/19/87	1.5	0.5	9.5	>100	>11
		07/01/87	1.3	0.4	-	>100	-
2353	11	01/26/87	4.2	1.4	<0.1	>100	>1000
		06/16/87	0	0	-	<0.1	-
		07/01/87	2.2	0.7	12.1	>100	>8.2
2358	15	03/18/87	1.1	0.4	<0.1	1.0	10
		07/01/87	1.2	0.4	43	>100	>2.4
2365	15	03/22/87	1.8	0.6	-	>100	-
		06/30/87	1.5	0.5	23	100	4.4
		07/01/87	0.5	0.2	-	>100	-
		07/08/87	1.3	0.4	-	100	-

TABLE 23 (Cont'd.)

<u>AVS #</u>	<u>Shipment</u>	<u>Date Tested</u>	<u>VR</u>	<u>VR*</u>	<u>ID₅₀</u>	<u>MTC</u>	<u>TI</u>
2393	16	07/22/87	1.9	0.6	0.6	32	57
		10/19/87	3.3	1.1	59	100	1.7
2397	16	07/22/87	1.1	0.4	17	32	1.9
		10/19/87	2.4	0.8	-	32	-
2404	16	05/15/87	1.0	0.3	-	10	-
		07/24/87	0	0	-	10	-
2407	16	05/15/87	1.7	0.6	0.9	10	11
		07/06/87	0	0	-	32	-
2408	16	05/15/87	1.1	0.4	-	<100	-
		07/06/87	0	0	-	100	-
2488	19	06/01/87	2.4	0	3.2	32	10
		07/09/87	0.3	0.1	-	32	-
2572	19	06/05/87	4.8	1.6	1.0	100	100
		07/09/87	0	0	-	10	-
		10/29/87	0	0	-	100	-
2574	19	06/05/87	3.6	1.2	1.6	<100	64
		07/09/87	0.6	0.2	-	10	-
2576	19	06/05/87	5.2	1.7	1.0	100	100
		06/17/87	3.1	1.0	2.4	100	41
2581	19	06/05/87	3.4	1.1	3.2	100	31
		07/10/87	0.4	0.1	-	10	-
2621	19	07/08/87	1.7	0.6	-	32	-
		07/23/87	2.4	0.8	11.2	100	8.9
2708	22	10/14/87	1.3	0.4	0.1	1.0	10
		10/19/87	2.5	0.8	-	32	-
2748	22	05/20/87	1.1	0.4	0.1	1.0	8.2
		07/10/87	0	0	-	≤0.1	-
2749	22	05/20/87	1.9	0.6	1.8	32	18
		06/17/87	0	0	-	10	-
		07/22/87	0	0	-	100	-

- a. Compounds are listed in ascending numerical order by AVS number. The results from the primary and the subsequent confirmatory CPE-inhibition assays are listed chronologically for each compound. The abbreviations are defined in the footnote to Table 3.

Further assays of AVS-999 were conducted on the following samples of the drug: (1) purified samples of 4-acetyl-4-phenyl-piperidine (PAP-base and PAP-HCl), purified from inactive drug received from the NCI (NSC 613291); (2) original and new samples obtained from Technassociates, and (3) a drug sample obtained from Dr. Raymond Schinazi (VA Medical Center, Decatur, GA). The samples were assayed in parallel on ATH8 cells and scored by visual assessment of CPE. The results, summarized in Table 24, showed that all of these samples were active, which was reflected in their VR scores of 2.5-3.3, although the original sample and the PAP-HCl appeared to be less toxic, resulting in higher TI values for those two samples. It should be noted from the data that the maximum reduction in CPE observed at any concentration level in this set of assays was 58%, in contrast to parallel data for ddC in which 100% reduction was observed supporting the lack of concentration-dependency and the marginal nature of the results for AVS-999. The new sample obtained from Technassociates was identical by HPLC profile to the material received from the NCI (NSC 613291) and it contained the same impurities. This material was significantly less active than the purified compound and the original sample submitted as AVS-999.

TABLE 24
RETESTING OF AVS-999 SAMPLES^a

AVS No.	Sample	VR	ID50 ($\mu\text{g/ml}$)	MTC ($\mu\text{g/ml}$)	Therapeutic Index
999	PAP-Base	3.2	3.2	100	31.25
999	PAP-HCl	2.7	0.32	>100	>312.50
999	Schinazi Sample	3.1	3.2	100	31.25
999	Original Sample (Technassociates)	3.3	0.32	100	312.50
999	New Sample (Technassociates)	2.5	>32.0	100	<3.13
2639	ddC (Positive Control drug)	3.8	0.1	10	100

^aAssays were done in ATH8 cells. The abbreviations are defined in the footnote to Table 3.

4.2.1.2 NCI compounds

During this reporting period all elements of the XTT assay system were brought into operation. The virus assay itself required the greatest amount of preliminary work because of (1) the difficult growth properties of the ATH8 cells; (2) the variability in CPE which was associated with both cells and virus infectivity; and (3) the background in the XTT read-outs which was caused by a combination of serum and phenol red.

As a result of the above factors, the assay data frequently showed a very small differential between cell controls (maximum values corresponding to virus-free and cytotoxicity-free cultures) and virus controls, which were sometimes too great due to virus-cell variability, or may have appeared to be too great because their value approached that of an aberrantly high background (media controls).

High background values were found in initial XTT experiments conducted with serial dilutions of cells in order to show the relationship between cell number and absorbance under our laboratory conditions and to check-out and become familiar with the plate reading

equipment and XTT reagents. In conjunction with Drs. Robert Shoemaker and Owen Weislow, further experiments were designed to examine the effects of serum and phenazine methanesulfonate (PMS), the latter an XTT reaction supplement, on background O.D. generation. The results, presented in Figure 4, showed that absorbance increased with increasing serum and PMS concentrations over the 4-hour observation period, and that results were similar for two different sources of serum (one of the sera tested at 15% only). Most importantly, the high background levels throughout the experiment suggested to us that fresh medium may have higher background than medium that has been incubated for several days as occurs in actual assays. This was found to be the case, as shown in Figure 5, where the absorbance of medium (15% serum) decreased with days of incubation.

The virus inoculum was the most frequent cause of test inconsistencies. The producer cell line H9/IIIB (HTLV-III_B-infected H9 cells) occasionally went through periods of decreased infectivity that resulted in unsatisfactory assays. We found we could avoid this problem by adding uninfected H9 cells to the producer cell cultures, in effect re-establishing an acute infection, and have adopted the practice of regularly adding uninfected H9 cells to the H9/IIIB cultures that are used in screening. To further minimize end-point variations in day to day assays it would be desirable to prepare stock virus for use in inoculations. To examine this possibility, a culture of acutely infected H9 cells was produced by cocultivating uninfected H9 cells with H9/IIIB producer cells (4:1 ratio). Supernatants were harvested at 24, 48, 72, 96, 120 and 168 hours post-cocultivation and stored in a deep freezer at -170°C in 1 ml aliquots. Viral titers were characterized by two different cell lines, SUPT1 and MT-2 cells, and by viral p24 antigen capture (ELISA) assay. Figures 6A and 6B show the increase in yield of virus with days after infection. The assay on MT-2 cells represents infectivity titers in a lytic system; that on SUPT1 cells represents syncytial-forming titers; and the p24 ELISA results reflect total virus released. Some preliminary conclusions that may be drawn from the results are that one syncytial-forming unit represents multiple units of infectivity, and that p24 yields agree well with infectivity. From the practical standpoint, the titer on MT-2 cells might be used to determine the dilution of virus, i.e., multiplicity of infection (MOI), to be used in Broder and XTT assays. A relatively large pool could therefore be stored frozen and used as a standardized inoculum for screening.

An example of the results obtained using the XTT assay is shown in Figure 7 for the positive control compound ddC. In this particular example, ATH8 cells were cocultivated with 40 HIV-III_B-infected H9 cells instead of being inoculated with a standard cell-free virus preparation. Our results with this cocultivation method agreed with those of Dr. Owen Weislow's in the consistently better infectivity of virus-infected cells compared to cell-free virus. For our scale-up of compound screening we initially selected the cocultivation method.

During September, the screening of NSC compounds in the XTT assay with MT-2 cells reached 120 per week, and in October the goal of 160 compounds per week was routinely established. The number of compounds tested as of October 31 was 1095. Of this number, 31 compounds were active or possibly active and the remainder were either inactive or represented unsatisfactory tests. The most frequent cause of unsatisfactory tests was poor infectivity of virus. One drug, NSC-614846, had activity comparable to dideoxycytidine (ddC, NSC-606170, AVS-2639). The results for NSC-614846, assayed in MT-2 cells, are shown in Figure 8. Inoculation was by cocultivation with H9/IIIB cells (20 cells/well). This compound had an ID₅₀ of 0.009 µg/ml, a 50% cytotoxicity concentration (TC₅₀) of 3.8 µg/ml, and a TI (calculated as the TC₅₀/ID₅₀) of 404. Figure 9 is an example of the data sheet resulting from this assay.

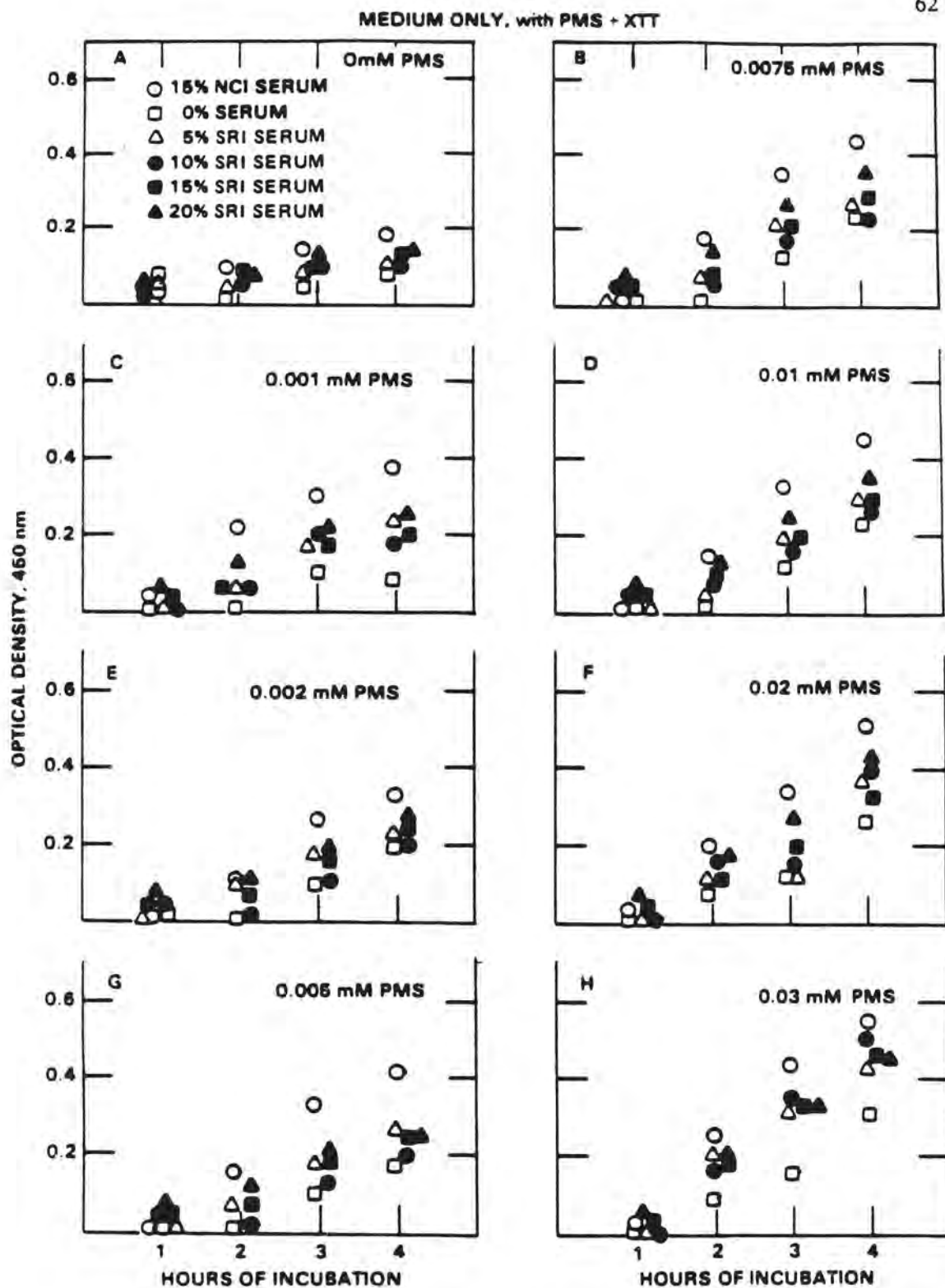


Figure 4. Effects of serum and PMS on background optical density readings in the XTT assay.

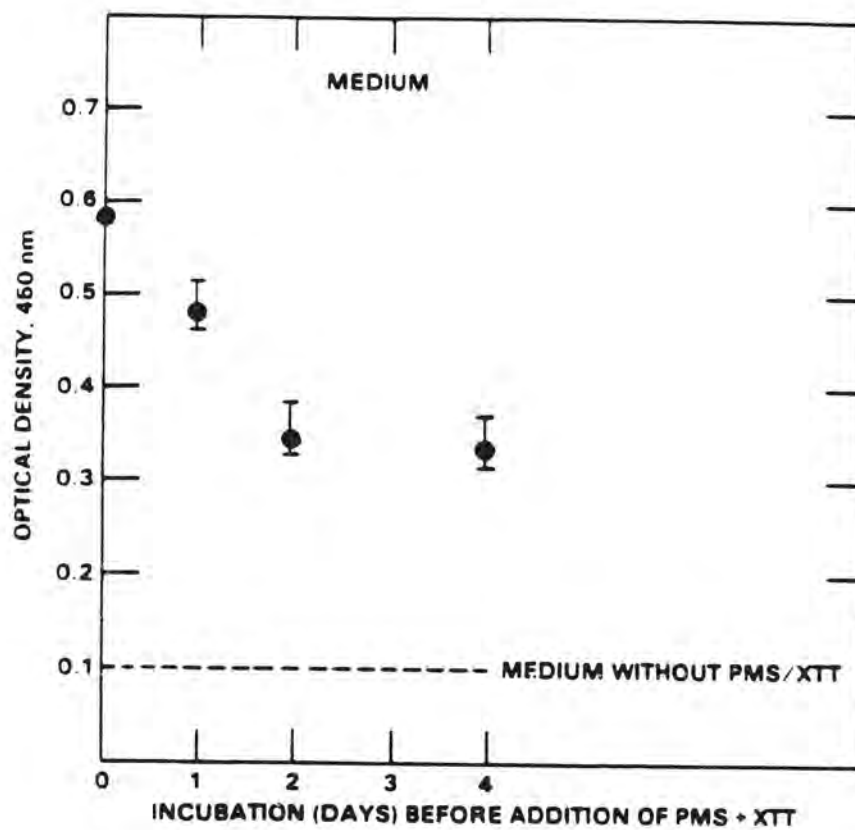


Figure 5. Effect of incubation time on the background optical density readings due to medium in the XTT assay.

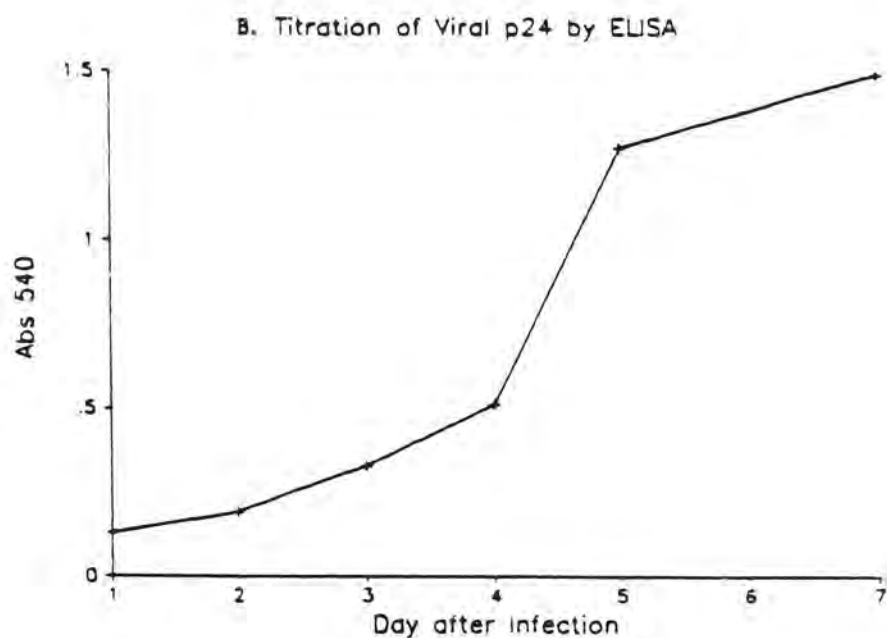
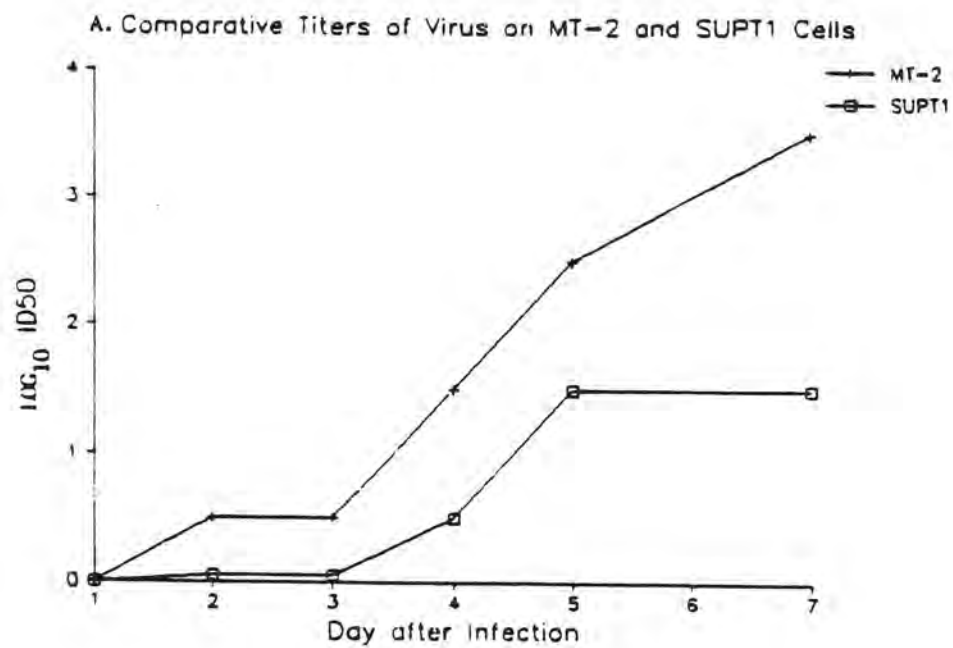


Figure 6. Production of infectious Human Immunodeficiency Virus and viral p24 antigen from acutely infected H9 cells.

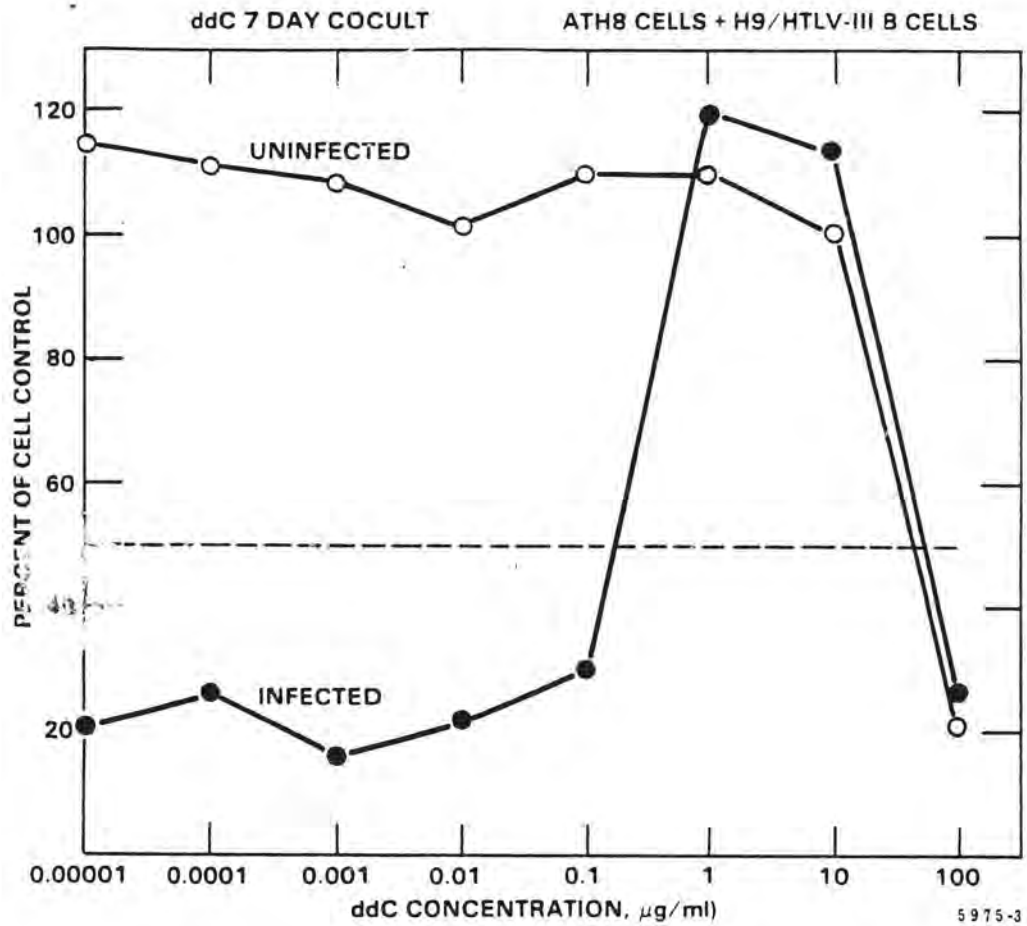


Figure 7. Results from an XTT assay of the antiviral activity of 2',3'-dideoxycytidine against HIV in ATH8 cells.

NSC 614846
 XTT ASSAY PLATE (0052)

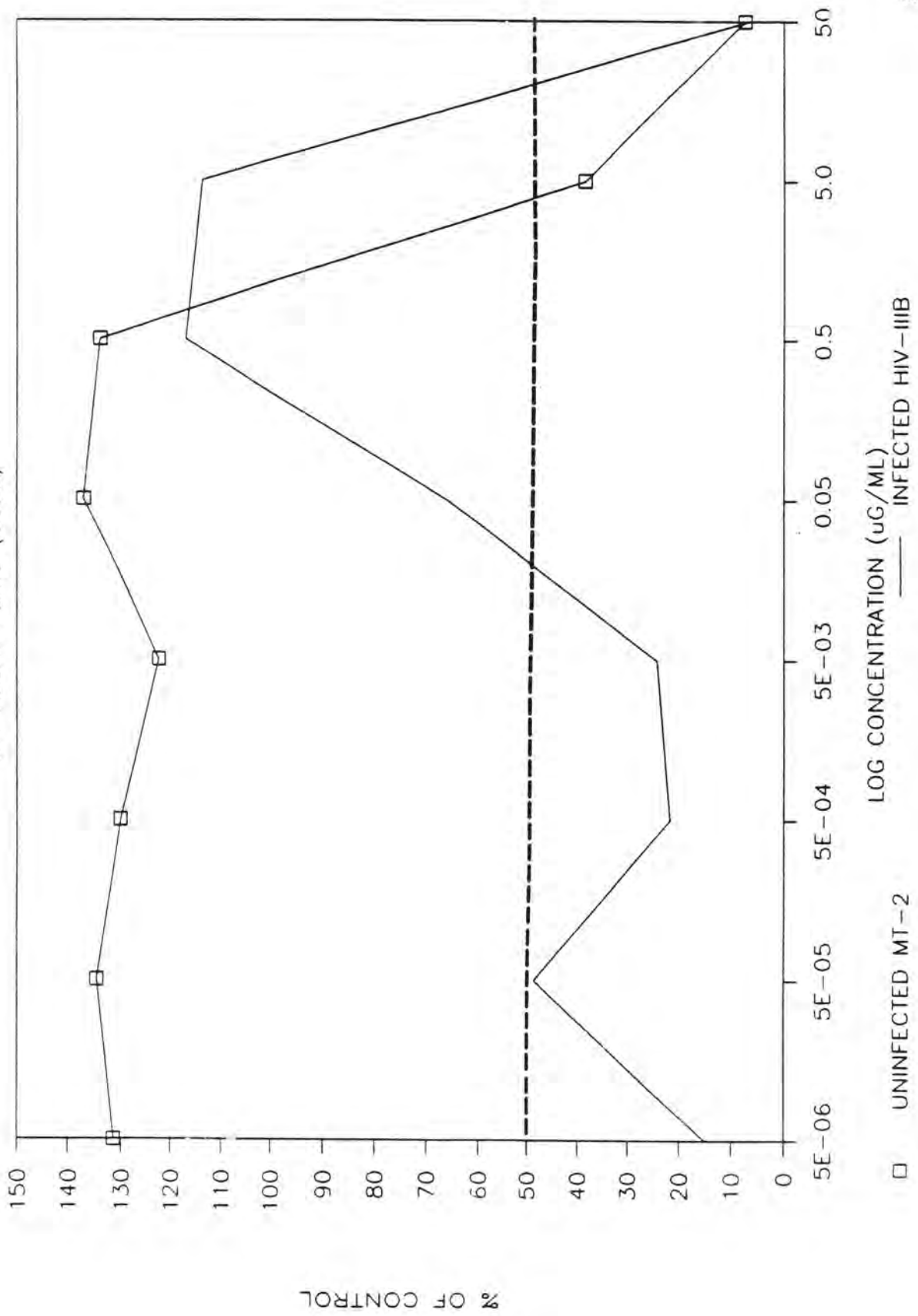


Figure 3. Results from an XTT assay of the antiviral activity of NSC-614846 against HIV in MT-2 cells.

EXPERIMENT ID : 9N 0052
 PLATE BARCODE : 0052
 INOC DATE : 03-DEC-87
 STAIN DATE : 03-DEC-87

CONFIG: 017

REPORT DATE : 09-FEB-88
 ASSAY : XTT
 DRUG ADD DATE : 03-DEC-87
 MR600 READ DATE : 03-DEC-87

OPTICAL DENSITIES

	01	02	03	04	05	06	07	08	09	10	11	12
A	0.017	0.018	0.017	0.221	0.216	0.000	0.220	0.219	0.222	0.291	0.236	0.020
B	0.018	0.232	0.692	0.396	0.588	0.455	0.595	0.986	1.429	1.525	0.297	0.018
C	0.018	0.231	0.667	0.393	0.949	0.482	0.398	0.944	1.639	1.471	0.304	0.019
D	0.020	0.217	0.419	0.793	0.284	0.309	0.627	1.298	1.299	1.484	0.532	0.019
E	0.020	0.223	1.328	0.756	0.407	0.719	0.410	1.510	1.564	1.558	1.000	0.018
F	0.019	0.223	1.353	1.696	1.732	1.680	1.593	1.759	1.726	0.656	0.308	0.018
G	0.019	0.225	1.351	1.350	1.224	1.276	1.403	1.377	1.503	1.623	1.281	0.017
H	0.020	0.020	0.020	0.220	0.210	0.000	0.219	0.219	0.211	0.214	0.210	0.017

CALCULATED RESULTS (INFECTED)

WELL	GRP	NSC	TTYPE	CONC	QC	MEAN	SD	CV	T/C%	IND	EC50/90/100
CELL LINE : MT-2		SAMPLE : 0100									
E03-G03			VEH 54		1	1.119	0.014	0.010			
B02-G02			BACKGD			0.225	0.006	0.025			
B04-C04	614846		1I	5.00E-06 u	1	0.169	0.002	0.005	15.1	N 9.38E-03	
B05-C05	614846		1I	5.00E-05 u	66	0.543	0.255	0.332	48.6	N 1.47E-01	
B06-C06	614846		1I	5.00E-04 u	1	0.243	0.019	0.041	21.7	* 2.31E-01	
B07-C07	614846		1I	5.00E-03 u	66	0.271	0.139	0.281	24.3		
B08-C08	614846		1I	5.00E-02 u	1	0.740	0.030	0.031	66.1*		
B09-C09	614846		1I	5.00E-01 u	1	1.309	0.148	0.097	117.0		
B10-C10	614846		1I	5.00E+00 u	1	1.273	0.038	0.025	113.8		
B11-C11	614846		1I	5.00E+01 u	1	0.075	0.005	0.016	6.7		
B03-D03			HIVCNIL		66	0.368	0.151	0.151	32.8		

CALCULATED RESULTS (UNINFECTED)

WELL	GRP	NSC	TTYPE	CONC	QC	MEAN	SD	CV	T/C%	IND	IC50/90/100
CELL LINE : MT-2		SAMPLE : 0100									
E03-G03			VEH 54		1	1.119	0.014	0.010			
F04-F04	614846		1U	5.00E-06 u	1	1.471	0.000	0.000	131.5		3.79E+00
F05-F05	614846		1U	5.00E-05 u	1	1.507	0.000	0.000	134.7		4.12E+01
F06-F06	614846		1U	5.00E-04 u	1	1.455	0.000	0.000	130.0		>5.00E+01
F07-F07	614846		1U	5.00E-03 u	1	1.368	0.000	0.000	122.3		
F08-F08	614846		1U	5.00E-02 u	1	1.534	0.000	0.000	137.1		
F09-F09	614846		1U	5.00E-01 u	1	1.501	0.000	0.000	134.1*		
F10-F10	614846		1U	5.00E+00 u	1	0.431	0.000	0.000	38.5*		
F11-F11	614846		1U	5.00E+01 u	1	0.083	0.000	0.000	7.4		

In Vitro Therapeutic Indices

IC50/EC50 IC90/EC90 IC100/EC100
 NSC : 614846 * 4.04E+02 > 2.79E+02 > 2.16E+02

Figure 9. Example data sheet from an XTT assay.

The following six compounds also showed antiviral activity in the initial screen in MT-2 cells: NSC-614552, NSC-614635, NSC-613671, NSC-613672, NSC-614488, and NSC-614989.

In addition to routine screening in MT-2 cells, a set of 40 compounds was assayed three times in ATH8 cells. The results for the set of 40 is summarized as follows:

No. of Compounds Tested in Two or More Trials	No. Showing Agreement in Two or More Trials		
	Activity	Toxicity	
		Good Agreement	Poor Agreement
38	36	21	9

Thirty-eight compounds were satisfactorily assayed in at least 2 of the 3 trials. For 36 of the compounds, the results with respect to active or inactive for anti-HIV activity were in agreement among the trials (all were inactive). Two compounds showed non-agreement between trials. For toxicity results, 21 compounds were in good agreement (within 1 log of the 50 percent toxic dose between trials), and 9 compounds differed by greater than 1 log between trials. The remaining 8 components were non-toxic.

4.2.2 Confirmatory Evaluations

4.2.2.1 Reverse transcriptase assays

In order to standardize various reverse transcriptase assay parameters we prepared a crude enzyme extract from supernatant culture fluid. We first examined the pH optimum for the RT assay. Preliminary data, and information from the literature, indicated that the pH optimum should be between 7.5 and 8.0. We looked at the buffer in the pH range of 6.9 to 8.1 at increments of 0.2 of a pH unit (Figure 10). As expected, the pH curve showed a broad maximum. A pH of 7.9 was chosen for future work because small changes in pH of the assay should have minimal effect on RT activity.

We next determined the optimum $MgCl_2$ concentration. This data is presented in Figure 11. The curve has a broad maximum from 6 to 10 mM. The concentration of $MgCl_2$ that we chose to use in subsequent assays was 9 mM. Again small changes in the $MgCl_2$ in the assay should not effect the RT assay. Our data differs from that reported by Cheng *et al.* (1987) in that we found substantial RT activity even in the absence of $MgCl_2$. This may be explained by the differences in our enzyme preparations. They used a highly purified RT.

We determined the optimum concentration of KCl in the RT assay (Figure 12). The lowest concentration of KCl we could examine was 40 mM because the extract was prepared in a solution containing 200 mM KCl. Increasing the concentration of KCl up to 190 mM activated the enzyme; above that level KCl inhibited the reaction. A final concentration of 180 mM KCl was chosen for use in the RT assay.

The following experiment was designed to assess the intrarun reproducibility of the procedure from virus pelleting through the RT assay. Twelve 600- μ l samples of clarified culture fluid from HIV infected cells, which had been split three days earlier, were centrifuged and the virus pellet suspended in 60 μ l of lysis buffer. After the virus was inactivated, the samples were stored at 4 °C overnight. Each sample was assayed in triplicate and the data are summarized in Table 25. The background value for no enzyme was 134 picocuries.

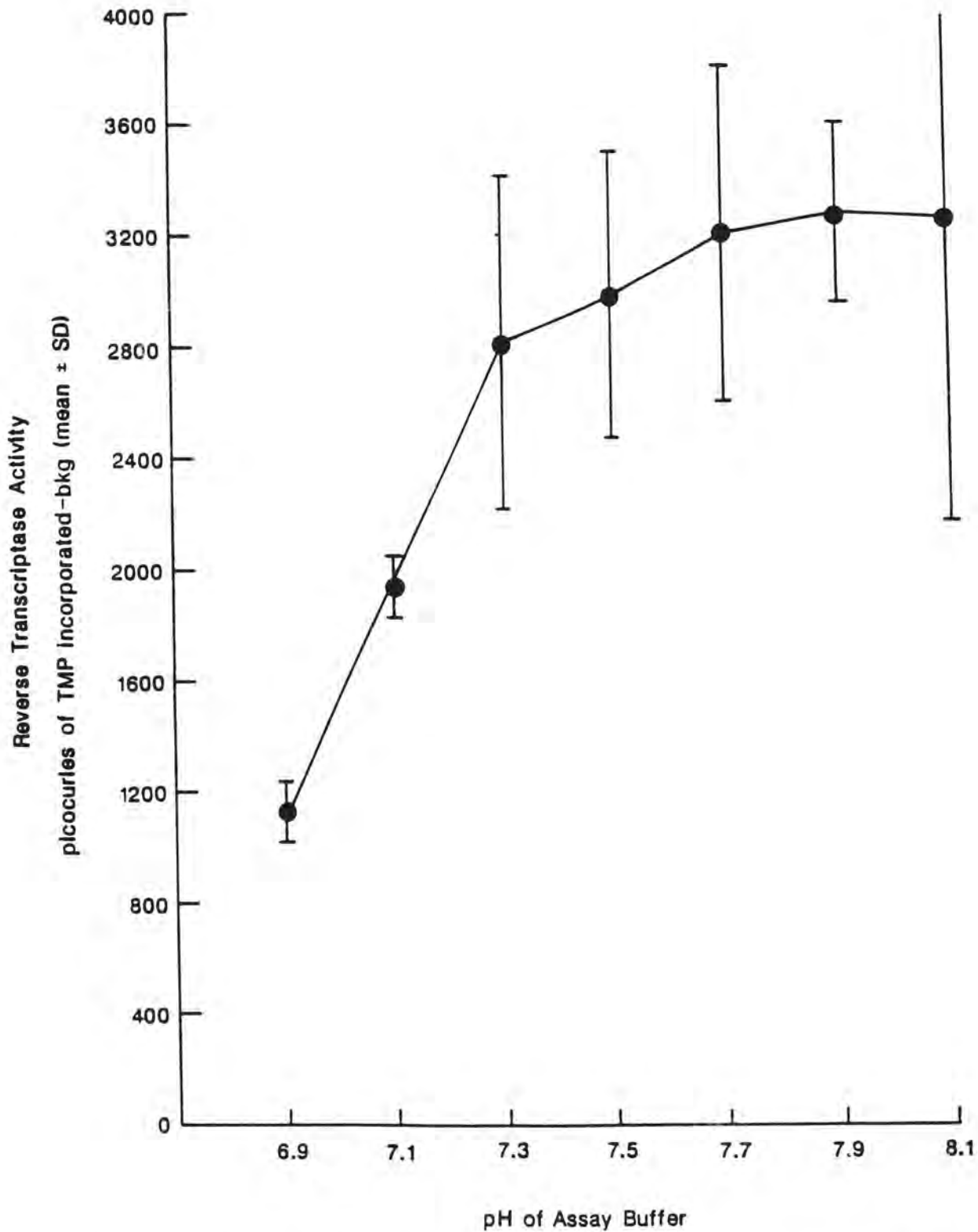


Figure 10. Effect of pH on enzyme activity. HIV reverse transcriptase was assayed in buffer at the indicated pH. Each mean is the average of six determinations. The background value for no enzyme was 316 ± 58 picocuries.

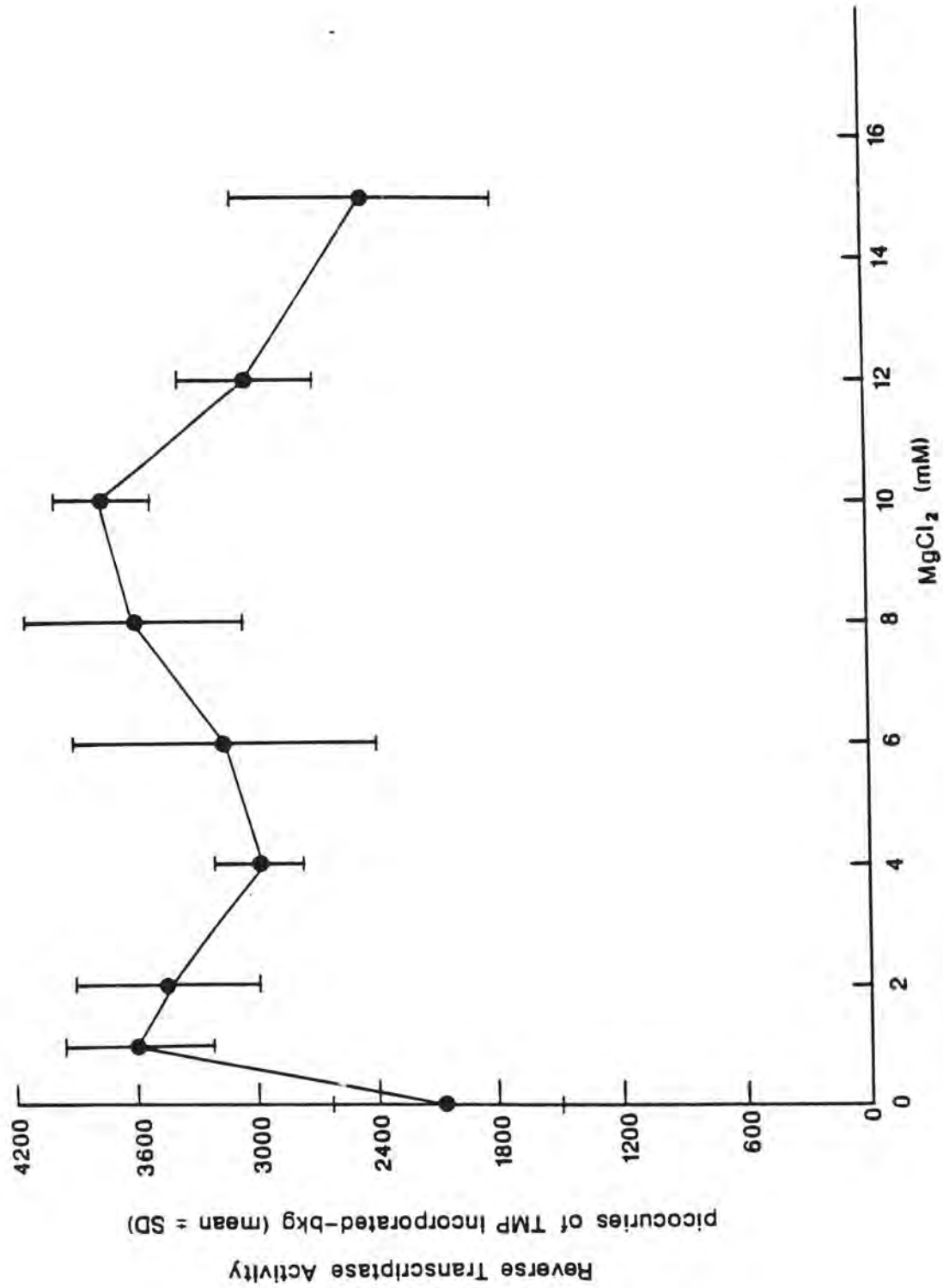


Figure 11. Effect of MgCl₂ concentration on enzyme activity. HIV reverse transcriptase was assayed in the presence of the indicated concentration of MgCl₂. Each mean is the average of three determinations. The background value for an assay without enzyme is 129 ± 20 picocuries.

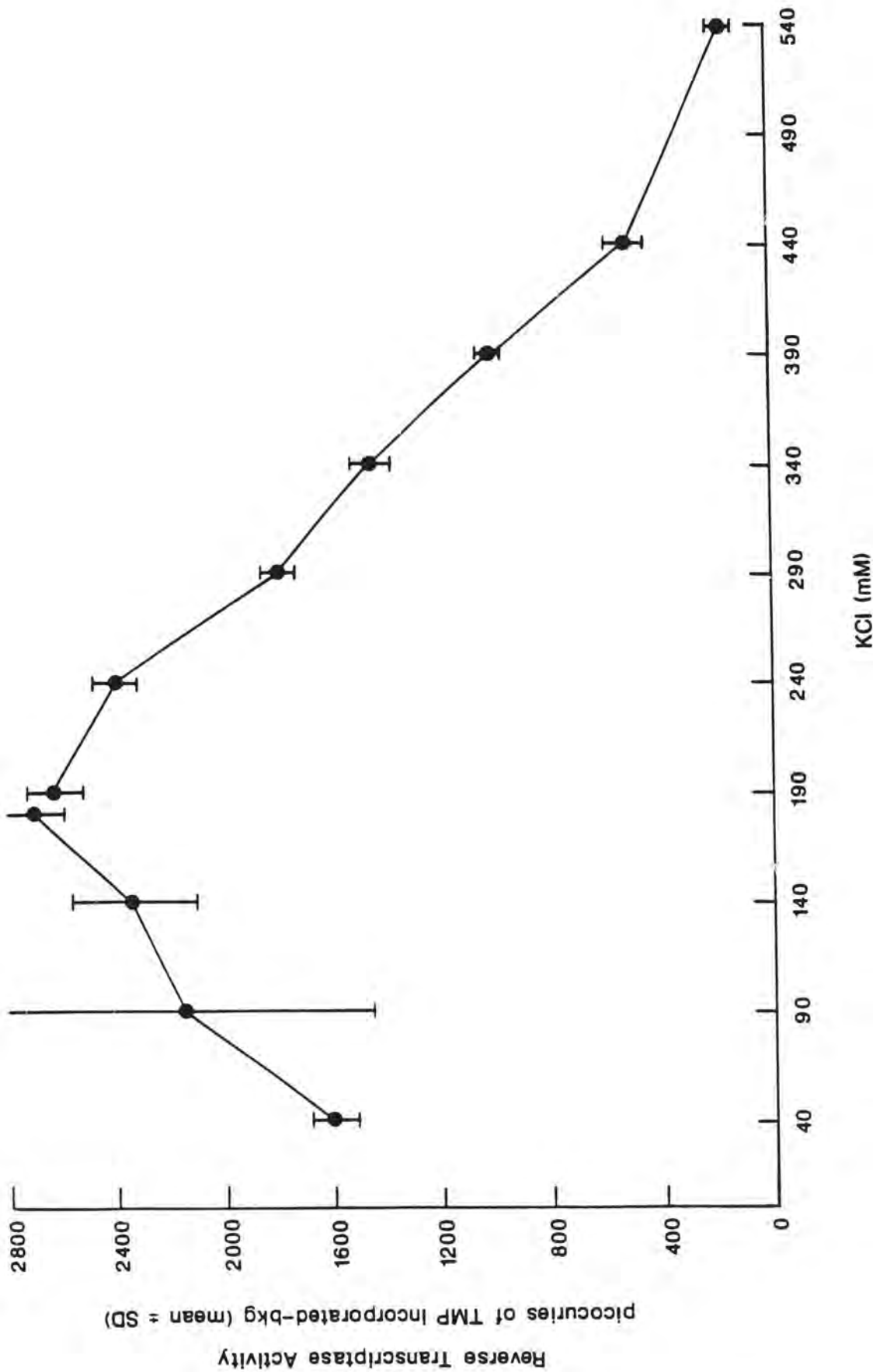


Figure 12. Effect of KCl concentration on enzyme activity. HIV reverse transcriptase was assayed in the presence of KCl at the indicated concentrations. Each mean is the average of three determinations. The background value for an assay without enzyme is 95 ± 16 picocuries.

TABLE 25
 REPLICATE REVERSE TRANSCRIPTASE PREPARATIONS

Sample Number	RT Activity (picocuries of TMP incorporated/hour)		Coefficient of Variation (%)
	Mean	SD	
1	3535	802	21.8
2	4063	597	14.2
3	5133	564	10.7
4	3004	385	12.3
5	3822	1017	25.7
6	4517	1140	24.5
7	3124	303	9.3
8	3890	72	1.8
9	4263	500	11.4
10	2875	291	9.6
11	4931	187	3.7
12	4000	--	--
means (11)	3923	721	18.0

This experiment demonstrated that the major source of error was in the assays themselves. Any variation produced in the handling and preparation of identical samples for the RT assay was smaller than that of assaying the individual sample.

4.2.2.2 Immunofluorescence assay

Two test compounds, AVS-999 and AVS-2353, and the positive control compound ddC were evaluated in an indirect immunofluorescence (IF) assay using the M26 monoclonal antibody specific for HIV/HTLV-III_B p24 gag protein. The compounds were tested at the following concentrations: ddC: 0.1, 0.32, 1.0, 3.2 $\mu\text{g/ml}$; AVS-999: 0.1, 1.0, 3.2, 10.0, 32.0, 100.0 $\mu\text{g/ml}$; and AVS-2353: 0.1, 1.0, 3.2, 10.0, 32.0, 100.0 $\mu\text{g/ml}$. Each concentration was tested in triplicate. The percent IF-positive cells was determined 7 days after infection among a total of 500-700 cells in most cases. The virus control cultures had 14% IF+ cells at that time. The results from this experiment are summarized in Table 26.

Treatment with ddC resulted in a drop from 13% IF+ cells at 0.1 $\mu\text{g/ml}$ to about 2% IF+ cells at 1.0 and 3.2 $\mu\text{g/ml}$. This inhibition of p24 expression agreed favorably with the results of cell viability and CPE inhibition by ddC except that inhibition of CPE was seen at 0.1 $\mu\text{g/ml}$ whereas infectivity and expression of viral gag gene as measured by p24 IF, was not measurably inhibited at that concentration. No toxicity was observed at the concentrations tested.

For AVS-999, the percent IF+ cells decreased from about 13% at 0.1 $\mu\text{g/ml}$ to about 1.5% at 32 $\mu\text{g/ml}$. Toxicity was observed only at 100 $\mu\text{g/ml}$. This inhibition of p24 expression also agreed favorably with previous CPE inhibition results except that 0.1 $\mu\text{g/ml}$, which inhibited CPE, did not appear to inhibit infectivity or expression of gag protein.

For AVS-2353, the percent IF+ cells remained at about 14% (no apparent inhibition) at concentrations of 0.1, 1.0 and 3.2 $\mu\text{g/ml}$, then decreased to about 6% at concentrations of 10 $\mu\text{g/ml}$ and greater. The IF results at low concentrations contrasts sharply with the previously reported inhibition of CPE. This may suggest that the drug exerts its antiviral effects after infection, integration and gag gene expression.

TABLE 26
SECONDARY TESTING OF AVS COMPOUNDS SHOWING CONFIRMED ACTIVITY AGAINST
HIV IN ATH8 CELL ASSAYS^a

AVS No.	FAIDS		SAIDS		MAIDS		HeLa-T4 ⁺ Syncytia Assay		Immuno- Fluorescence		
	VR	ID50/MTC	TI	ID50/MTC	TI	ID50/MTC	TI	ID50/MTC	TI	ID50/MTC	TI
001	2.3	3.2/3.2	1.0	26/320 0.18/>10	12 >57	0.55/3.2	5.9	0.2/32	139		X
999	2.7	14.8/100	6.8	-/>320	--	X		<0.1/>32	> 320	15/100	6.7
	1.3	-/ 32	-					22 / 32	1.5		
	1.2	11.5/>32	>2.8								
	1.6	3.9/>10	>2.6								
2285	1.2	29.8/ 32	1.1	28/>320	>11	X		-/ 32	--		X
2332		X		X		X		-/>100	--		X
2340		X		X		X		2.7/ 32	12		X
2353	2.3	9.7/100	10	X		X		0.5/ 32	59	17.5/100	5.7
2358	0	-/10	--	X		X		X			X
2365		X		X		X		X			X
2576		X		X		X		X			X
2621		X		X		X		X			X

Positive Control Drug (Typical Results)

2639 (ddC) 3.0 0.66/10 15 4.1/>10 >2.4 1.2/>10 >8.2 <0.1/32 >320 0.48/>3.2 >6.7

a. Results are shown for compounds evaluated in five different secondary assays. The abbreviations are defined in the footnote to Table 3. Dideoxycytidine (ddC, AVS-2639) was assayed in parallel as a positive control drug. The "X" indicates assays scheduled for testing

4.2.2.3 HeLa-T4⁺ syncytial focus-inhibition assay

The HeLa transformant cell line expressing the human CD4 surface protein (HeLa-T4⁺; Maddon *et al.*, 1986) was used to develop a syncytium-inhibition assay. We first attempted to induce CPE in these cells by infecting them with clarified culture supernate freshly harvested from 48 hour post-passage H9/HTLV-III B producer cells. However, no visible change in cell morphology was noticeable at any time during five days of observation.

We next attempted to reproduce the formation of syncytia reported by Maddon *et al.* Varying ratios of H9/HTLV-III B cells and HeLa-T4⁺ cells were mixed together, then cocultured in 96-well or 24-well plates. Uninfected H9 cells were used in parallel as a control. Numerous syncytia containing five or more nuclei were observed after 18 hours of cocultivation of H9/HTLV-III B and HeLa-T4⁺ cells. However, syncytia of similar morphology were also observed to be present in the controls, although at a much lower frequency.

We have tested three strains of HIV in this assay: HTLV-III B, RF-II, and WMJ-1. All three strains induced numerous syncytial foci of multinucleated giant cells in the HeLa-T4⁺ monolayer within 20 hours when the infected H9 cells were cocultivated with the HeLa-T4⁺ cells for 4 hours and removed. The H9/RF-II cells produced foci that were significantly larger than those produced with either of the other two strains of HIV. In addition, cell-free supernatant virus of the RF-II strain, but not the HTLV-III B or WMJ-1 strains, induced syncytia in HeLa-T4⁺ cell monolayers within 20 hours when it was used directly as the virus inoculum. The use of cell-free HIV/RF-II as the inoculum has enhanced the speed and accuracy of this assay because of the large number of cell counts that were needed when plating cocultivations.

Three separate samples of 4-acetyl-4-phenyl-piperidine, submitted as AVS-999, NSC-613291, and a sample obtained from Dr. R. Schinazi (VA Medical Center, Decatur, GA), were assayed in parallel along with ddC and azidothymidine (AZT). On comparative evaluation, AVS-999 was the most active of the three samples with an MIC of 0.10 $\mu\text{g/ml}$ and an MTC of 32 $\mu\text{g/ml}$. The compound received from the National Cancer Institute (NSC #613291) was cytotoxic to HeLa-T4⁺ cells at 0.32 $\mu\text{g/ml}$ concentration and had potentially no antiviral activity. 4-Acetyl-4-phenyl-piperidine (PAP) submitted by Dr. Schinazi was cytotoxic at 10 $\mu\text{g/ml}$ and at higher concentrations. Approximately 42 percent reduction in CPE was observed at the highest concentration level (100 $\mu\text{g/ml}$) of drug. Comparative results of 4-acetyl-4-phenyl-piperidine submitted in the three different lots, along with ddC and AZT tested as positive controls, are presented in Table 27. The original AVS-999 exhibited anti-HIV activity with an ID₅₀ of approx. 22 $\mu\text{g/ml}$. It was not as potent as ddC or AZT in HeLa-T4⁺ cells, nor was the inhibition of the virus-induced foci concentration-dependent.

TABLE 27
ANTI-HIV ACTIVITY OF VARIOUS AVS-999 SAMPLES *IN VITRO*

Compound	50% Inhibitory Dose ($\mu\text{g/ml}$)	Minimum Toxic Concentration ($\mu\text{g/ml}$)	Therapeutic Index
AVS #999 (SR1)	22	32	1.5
AVS #999 (Schinazi)	--	10	--
NSC 613291 (NCI)	--	0.32	--
AVS #2639, ddC	0.2	1.0	5
AVS #1603, AZT	<0.1	3.2	>32

Five additional compounds having confirmed activity against HIV in the primary ATH8 cell assay were further evaluated in this syncytium-inhibition assay. Compounds AVS-2285 and AVS-2332 did not show activity in this assay. The other three compounds, AVS-1, AVS-2340 and AVS-2353, showed good antiviral activity in this assay. The results are summarized in Table 26.

4.2.3 Secondary Evaluations

4.2.3.1 Feline leukemia virus - FAIDS variant

Five compounds have been assayed in the FeLV (FAIDS) focus-inhibition assay for confirmation of antiviral activity. These results are summarized in Table 26. Four of the compounds, AVS-01, AVS-999, AVS-2285, and AVS-2353, showed antiviral activity in this *in vitro* feline retrovirus model; AVS-2358 did not display activity in this assay. AVS-2639 (dideoxycytidine) was the positive control compound for this assay and yielded VR's in the range 1.0-3.4, ID₅₀'s in the range 0.3-3.6 µg/ml, and TI values of 2.8-32.4.

Initially, several compounds were screened in parallel using both the FeLV (FAIDS) assay and the HIV ATH8 assay, and occasionally, such as when the ATH8 assay was not working properly, the FeLV (FAIDS) assay was used as the primary screen for retrovirus antiviral activity. Four additional compounds were identified having antiviral activity in this focus-inhibition assay (Table 28). The most active compound assayed in this model was AVS-2708. It had a VR of 4.6, an ID₅₀ of 1.2 µg/ml, and a TI of 82.5. This compound also showed antiviral activity against HIV (VR values of 1.3 and 2.4, Table 23) and will be tested in other confirmatory assays. Compounds AVS-2280, AVS-2291, and AVS-222 did not show activity against HIV (Appendix C).

TABLE 28
COMPOUNDS ACTIVE AGAINST FELINE LEUKEMIA VIRUS
FAIDS VARIANT^a

<u>AVS #</u>	<u>Shipment</u>	<u>VR</u>	<u>VR</u> [*]	<u>ID</u> ₅₀	<u>MTC</u>	<u>TI</u>
2708	22	4.6	1.5	1.2	100	82.5
2280	11	3.2	1.1	4.5	100	22.1
2291	11	1.7	0.6	4.6	32	7.0
0222	9	1.4	0.5	31.4	32	1.0

a. Compounds identified by their AVS number are listed in descending order by activity. CPE-inhibition assays were done in F81C cells. The abbreviations are defined in the footnote to Table 3.

4.2.3.2 Simian retrovirus - SAIDS

Our first requirement in establishing this assay system was to quantify the virus stock in terms of syncytia-forming units. We first attempted to use monolayer cells as indicator cells in the fusion assay. We found that neither HeLa cells nor BHK cells could serve as appropriate indicator cells when exposed to undiluted medium from co-cultures

We then attempted to quantitate the virus by infecting Raji cells. We had tried to avoid using Raji cells thus far as indicator cells in a fusion assay simply because they are suspension cells making fusion "foci" more difficult to count. In our first experiment we seeded a 96-well tray with 100 μ l/well of uninfected Raji cells (1×10^6 cells/ml) from a two day old culture. To eight wells, 100 μ l of 2 day old SRV-2 co-culture (2×10^5 cells/ml) was added. This same density and volume of uninfected Raji cells was added to four wells serving as uninfected control wells. This protocol was repeated on the same plate using only the supernate (100 μ l) from co-culture cells as the inoculum on uninfected Raji cells. The plate was observed daily for 4 days. Syncytia were found in all wells infected with either co-culture cells or infected cell supernate alone. We repeated this assay using lower densities of Raji cells to seed the plate (1×10^4 /ml and 1×10^5 /ml) and infected the wells with co-culture supernate alone. Cell fusion was apparent as early as day 2.

Three compounds were assayed in the SAIDS syncytia-inhibition assay during this reporting period. Because of the nature of this assay, a virus rating was not calculated for test compounds. Thus, antiviral activity of a compound was determined by a therapeutic index of 1.0 or greater. Two compounds, AVS-1 and AVS-2285, showed antiviral activity according to this scheme. AVS-999 was inactive in this assay. The results are summarized in Table 26.

4.2.3.3 Murine AIDS (MAIDS)

Two drugs which demonstrated significant antiviral activity in the HIV primary screen, AVS-2639 (ddC) and AVS-01 (Ribavirin), have been tested in the CAS-BR-M murine leukemia virus plaque-reduction assay. AVS-2639 (ddC) was the more active of the two drugs tested. Only slight toxicity was observed at 100 μ g/ml (Figure 13B) and 100% plaque-reduction was observed at drug concentrations as low as 10 μ g/ml (Figure 13A). The MIC_{50} was 1.8 μ g/ml and the TI was 54.5. This drug will be used as the positive control drug in future drug assays.

AVS-01 (Ribavirin) also demonstrated antiviral activity in this assay (Figure 14A). The drug was toxic to the SC-1 cells at 32 μ g/ml and partially toxic at 10 and 3.2 μ g/ml (Figure 14B). The MIC_{50} was 0.5 μ g/ml and the TI was 5.9. AVS-2639 was included in this assay as a positive control drug. It had an MIC_{50} of 1.2 μ g/ml and a TI >8.2.

4.2.3.4 SupT1 assays

A fusion assay we developed using SupT1 cells was used to determine the activity of Castanospermine (submitted under NSC number 614552). Castanospermine has been known to be a glycosylation inhibitor and blocks the processing of glycoprotein (gp) 160 to gp 120 thus aborting the infection (B.D. Walker *et al.* 1987, Anti-HIV Properties of Castanospermine, Abstract, III International Conference On AIDS). SupT1 cells were pretreated with eight half \log_{10} concentrations of Castanospermine for one hour and cell free HTLV-III B virus was added. A dose related syncytium-inhibition response was observed 20 hours post-infection. The minimum inhibitory concentration of this compound was 0.032 μ g/ml and the ID_{50} was 3.6 μ g/ml. It was partially toxic to SupT1 cells at 100 μ g/ml.

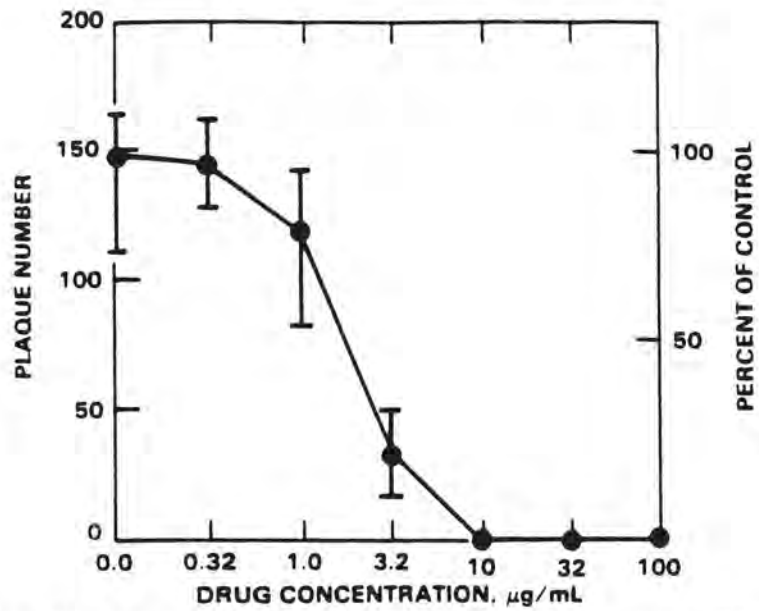


Figure A. Effect of AVS 2639 (ddC) on CAS-Br-M replication in SC-1 cells.

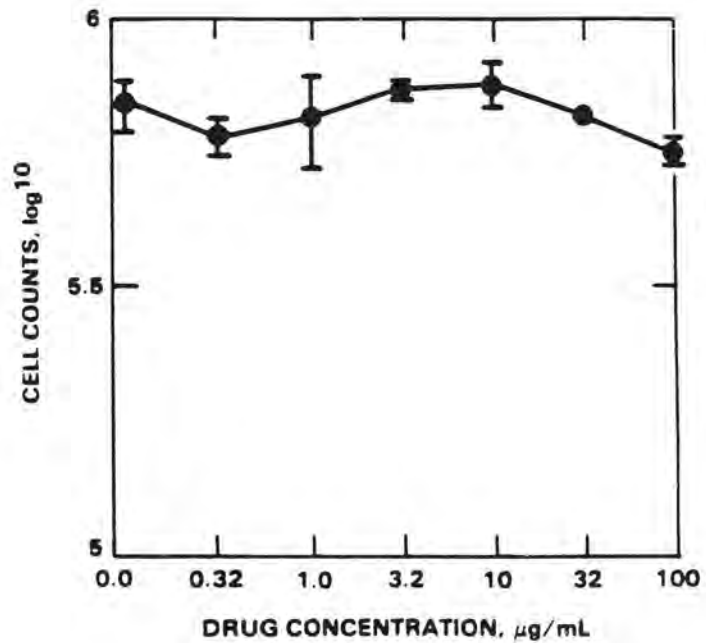


Figure B. Effect of AVS 2639 (ddC) on host cell multiplication.

Figure 13. Antiviral activity of 2',3'-dideoxycytidine in the in vitro murine retrovirus assay.

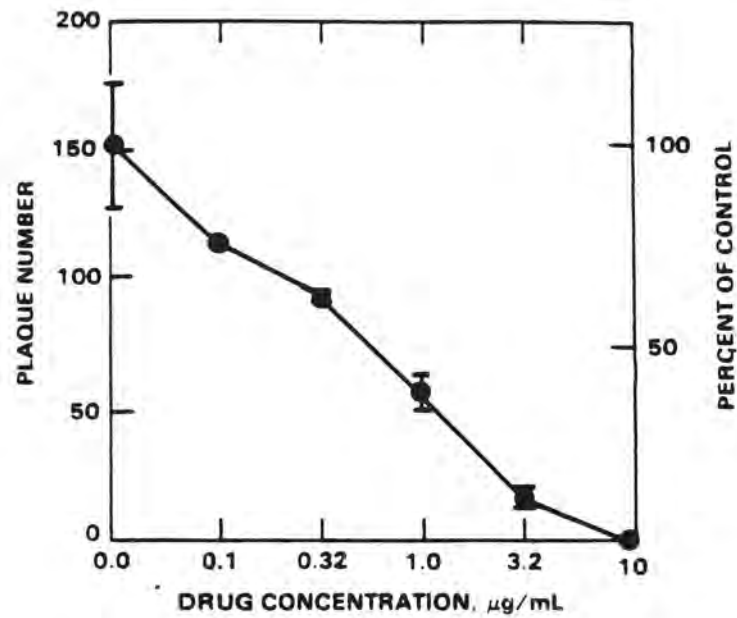


Figure A. Effect of AVS 1 (ribavirin) on CAS-Br-M replication in SC-1 cells.

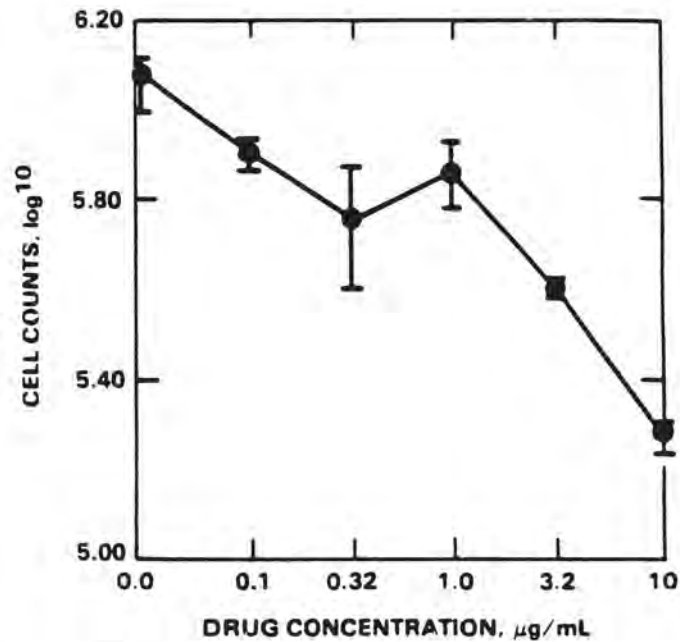


Figure B. Effect of AVS 1 (ribavirin) on host cell multiplication.

Figure 14. Antiviral activity of Ribavirin in the in vitro murine retrovirus assay.

4.3 Antiviral Evaluations In Vivo

A total of 17 compounds have been received at SRI for evaluation in the primary *in vivo* antiviral screen. Some of these compounds were to be evaluated in more than one *in vivo* model and have been received in more than one shipment. Table 29 presents a cumulative summary of the number of compounds received for testing, and the number of compounds tested, in each *in vivo* antiviral model. Thirteen compounds have been evaluated in our *in vivo* models this reporting period. A cumulative summary presenting all of the *in vivo* antiviral test results is included as Appendix D.

TABLE 29
PRIMARY IN VIVO ANTIVIRAL SCREEN:
TARGET VIRUSES AND NUMBERS OF COMPOUNDS TESTED
THROUGH NOVEMBER 14, 1987^a

<u>Shipment</u>	<u>Compounds Per Shipment</u>	<u>Date Received</u>	<u>PIC</u>	<u>VEE</u>	<u>JE</u>	<u>VV</u>
13	1	11/13/86	NS	1(1)	0(1)	NS
22	11	5/5/87	10(11)	NS	NS	NS
26	1	6/26/87	1(1)	NS	NS	NS
27	2	7/21/87	2(2)	2(2)	NS	NS
33	<u>9</u>	11/3/87	<u>0(3)</u>	<u>0(3)</u>	<u>NS</u>	<u>0(4)</u>
Total	24		13(17)	3(6)	0(1)	0(4)

a. The number of compounds specified for testing against each virus is shown in parentheses. NS indicates that compounds were not specified for testing against that virus.

4.3.1 Pichinde Virus in MHA Hamsters

4.3.1.1 Model characterization

In our previous annual progress report we showed the protective effect in MHA hamsters of Ribavirin against a lethal challenge of our passage 4 stock of Pichinde virus strain An 4763. We subsequently evaluated Ribavirin treatment against challenge with a plaque-purified stock of Pichinde virus. Groups of 10 hamsters were infected intraperitoneally (IP) with 100, 32 or 10 LD₅₀ of virus on day 0. Treatment was initiated 4 hours post-challenge with 150 mg/kg, 100 mg/kg or 50 mg/kg of subcutaneously administered Ribavirin or with Ribavirin diluent (0.9% saline) alone on a qld x 7 day schedule. Mortality was monitored for 21 days. The results are shown in Table 30. Treatment with 150 mg/kg and with 100 mg/kg of Ribavirin increased survivability above the diluent treated infected animals. An experiment was conducted to compare the LD₅₀ for plaque-purified Pichinde virus in untreated versus saline (qld X 7) treated MHA hamsters. The results, shown in Table 31, indicated that the LD₅₀ for the two challenge groups was not significantly different. The LD₅₀ for untreated animals was calculated at 2.3 pfu while that for saline-treated animals was 1.9 pfu.

TABLE 30
RIBAVIRIN VS. PLAQUE-PURIFIED PICHINDE AN 4763 IN MHA STRAIN HAMSTERS

Dose (mg/kg)	<u>100 LD₅₀ Challenge</u>		
	<u>Female</u>	<u>Male</u>	<u>Cumulative</u>
150	1/5 ^a (15.0+/-0.0) ^b	0/5 (NA)	1/10 (15.0+/-0.0)
100	2/5 (13.5+/-0.7)	1/5 (12.0+/-0.0)	3/10 (13.0+/-1.0)
50	4/5 (11.3+/-0.5)	2/5 (16.5+/-3.5)	6/10 (13.0+/-3.2)
diluent	2/5 (14.5+/-7.8)	3/5 (11.3+/-1.5)	5/10 (12.6+/-4.4)
untreated	5/5 (9.8+/-0.8)	5/5 (10.2+/-0.8)	10/10 (10.0+/-0.8)

Dose (mg/kg)	<u>32 LD₅₀ Challenge</u>		
	<u>Female</u>	<u>Male</u>	<u>Cumulative</u>
150	0/5 (NA)	0/5 (NA)	0/10 (NA)
100	1/5 (16.0+/-0.0)	1/5 (15.0+/-0.0)	2/10 (15.5+/-0.7)
50	2/5 (11.0+/-0.0)	1/5 (21.0+/-0.0)	3/10 (14.3+/-5.8)
diluent	3/5 (15.7+/-5.1)	1/5 (11.0+/-0.0)	4/10 (14.5+/-4.8)
untreated	4/5 (12.5+/-5.0)	2/5 (10.5+/-0.7)	6/10 (11.8+/-4.0)

Dose (mg/kg)	<u>10 LD₅₀ Challenge</u>		
	<u>Female</u>	<u>Male</u>	<u>Cumulative</u>
150	0/5 (NA)	0/5 (NA)	0/10 (NA)
100	3/5 (14.7+/-0.6)	0/5 (NA)	3/10 (14.7+/-0.6)
50	3/5 (15.3+/-5.1)	2/5 (14.0+/-0.0)	5/10 (14.8+/-3.7)
diluent	5/5 (9.8+/-1.3)	1/5 (15.0+/-0.0)	6/10 (10.7+/-2.4)
untreated	4/5 (9.25+/-0.5)	3/5 (12.0+/-2.0)	7/10 (10.4+/-1.9)

^a # dead/ # challenged

^b ADD = $\frac{\sum [(day\ of\ death) \times (\# \text{ dead that day})]}{\text{total number of dead}}$ +/- S.D.

TABLE 31
EFFECTS OF SALINE TREATMENT ON PICHINDE LETHALITY

Challenge pfu	<u>Untreated</u>		
	<u>Female</u>	<u>Male</u>	<u>Cumulative</u>
10 ⁴	5/5 ^a (9.6+/-0.6) ^b	5/5 (9.4+/-0.6)	10/10 (9.5+/-0.5)
10 ^{3.5}	5/5 (11.0+/-1.2)	5/5 (11.0+/-2.8)	10/10 (11.0+/-2.1)
10 ³	5/5 (11.2+/-4.9)	5/5 (11.0+/-1.9)	10/10 (11.1+/-3.5)
10 ^{2.5}	5/5 (9.4+/-1.1)	5/5 (9.8+/-1.3)	10/10 (9.6+/-1.2)
10 ²	5/5 (11.0+/-1.6)	5/5 (10.4+/-0.9)	10/10 (10.7+/-1.3)
10 ^{1.5}	4/5 (9.0+/-1.4)	5/5 (14.0+/-5.6)	9/10 (11.8+/-4.8)
10 ¹	3/5 (9.0+/-1.0)	5/5 (10.2+/-1.3)	8/10 (9.8+/-1.3)
10 ^{0.5}	5/5 (10.6+/-0.9)	4/5 (12.0+/-3.5)	9/10 (11.2+/-2.3)
10 ⁰	1/5 (10.0+/-0.0)	2/5 (13.0+/-4.2)	3/10 (12.0+/-3.5)

Saline X 7 days

	<u>Saline X 7 days</u>		
	<u>Female</u>	<u>Male</u>	<u>Cumulative</u>
10 ⁴	5/5 ^a (9.2+/-0.8) ^b	5/5 (11.8+/-4.1)	10/10 (10.5+/-3.1)
10 ^{3.5}	5/5 (9.0+/-1.0)	5/5 (12.2+/-2.9)	10/10 (10.6+/-2.6)
10 ³	5/5 (12.4+/-4.0)	5/5 (11.4+/-2.8)	10/10 (11.9+/-3.3)
10 ^{2.5}	5/5 (10.8+/-3.0)	5/5 (10.6+/-1.1)	10/10 (10.7+/-2.2)
10 ²	5/5 (9.6+/-0.6)	5/5 (13.2+/-3.6)	10/10 (11.4+/-3.1)
10 ^{1.5}	5/5 (10.0+/-0.7)	5/5 (12.2+/-1.6)	10/10 (11.1+/-1.7)
10 ¹	5/5 (10.2+/-0.8)	4/5 (10.8+/-0.5)	9/10 (10.4+/-0.7)
10 ^{0.5}	5/5 (12.6+/-1.9)	5/5 (13.4+/-4.4)	10/10 (13.0+/-3.2)
10 ⁰	1/5 (9.0+/-0.0)	3/5 (13.7+/-5.7)	4/10 (12.5+/-5.2)

^a # dead/ # challenged

^b ADD = $\frac{\sum [(\text{day of death}) \times (\# \text{ dead that day})]}{\text{total number of dead}}$ +/- S.D.

The effects of injection-induced stress and the viral inoculum preparation time were evaluated to determine their effects on the observed mortality patterns. Hamsters were challenged IP with 100, 32 or 10 LD₅₀ of Pichinde virus and treated with (1) saline qld X 7 SC, (2) sham stuck qld X 7 (animals underwent needle sticks but no material was injected) or (3) untreated. In addition, one group of animals at each challenge level was injected with viral inoculum which had been incubated at 4°C for 1 hour prior to injection. Also, one group of animals challenged with 100 LD₅₀ received 20 mg of hydroxycortisone acetate intramuscularly. The results indicated that the viral inoculum is not adversely altered by holding at 4°C for one hour prior to administration. All steroid treated animals succumbed to viral challenge (ADD = 9.3); however, 66% of uninfected steroid-treated animals also died (ADD = 16.5; not shown). No consistent differences in the remaining experimental groups were noted.

Because of the variability we had been observing in the death pattern of hamsters challenged with various LD₅₀ levels, we decided to determine the LD₉₀ dose. Groups of 20 hamsters (10 male, 10 female) were challenged IP with plaque-purified or Passage 4 Pichinde virus and treated with saline SC qld X 7. The percent mortality and the average day of death (ADD) were calculated for each challenge level. From these and previous results, challenge doses were chosen for the plaque-purified and Passage 4 viruses of 1×10^4 pfu/hamster and 1×10^3 pfu/hamster respectively. These challenge levels were chosen on the basis of their consistent production of 90-100% mortality.

The antiviral efficacy of Ribavirin was evaluated in the MHA hamster model using these newly selected challenge levels. Groups of 20 hamsters (10 male, 10 female) were challenged with the Passage 4 or plaque-purified Pichinde virus. The experimental groups for each challenge virus included (1) untreated, infected; (2) saline SC qld X 7; (3) 100 mg/kg Ribavirin SC qld X 7 and (4) 50 mg/kg Ribavirin SC qld X 7. The results, shown in Table 32, indicate that 100 mg/kg of Ribavirin significantly reduced the mortality in both viral challenge groups. Although 50 mg/kg of Ribavirin did not reduce mortality, it did prolong the ADD. The ADD was significantly different at $p < .05$ for both dose levels of Ribavirin in male and female hamsters challenged with 1×10^4 pfu of the plaque-purified virus. Also, the ADD at both dose levels of Ribavirin was significantly different at $p < .05$ from the saline treated controls for female hamsters challenged with 1×10^3 pfu of Passage 4 virus. Male hamsters challenged with 1×10^3 pfu of Passage 4 Pichinde virus did not have a significantly different ADD in the Ribavirin treated versus saline treated groups.

4.3.1.2 Antiviral Evaluations

To date we have received 16 compounds for *in vivo* testing in the Pichinde virus model. These compounds and the quantities received are listed in Table 33.

TABLE 32
EFFECT OF RIBAVIRIN ON PICHINDE VIRUS INFECTIONS
AT SELECTED CHALLENGE LEVELS IN MHA HAMSTERS

Challenge = 1×10^3 pfu passage 4 virus

	<u>Females</u>	<u>Males</u>
Untreated controls	10/10 ^a (11.3+/-2.4) ^b	9/10 (12.2+/-3.7)
Saline SC X 7 days	9/10 (9.8+/-1.1)	9/10 (11.1+/-4.0)
100 mg/kg rbn X 7 days	3/10 (15.3+/-1.5)*	1/10 (12.0+/-0.0)
50 mg/kg rbn X 7 days	9/10 (13.3+/-2.7)*	8/10 (14.1+/-1.7)

Challenge = 1×10^4 pfu plaque purified virus

	<u>Females</u>	<u>Males</u>
Untreated controls	9/10 (9.6+/-1.9)	10/10 (11.6+/-2.5)
Saline SC X 7 days	10/10 (10.0+/-2.1)	9/10 (11.0+/-1.7)
100 mg/kg rbn X 7 days	4/10 (16.0+/-3.7)*	3/10 (17.0+/-1.7)*
50 mg/kg rbn X 7 days	9/10 (12.4+/-1.7)*	9/10 (16.7+/-2.2)*

Uninfected, untreated	0/5	0/5
Uninfected, saline X 7days	0/5	0/5
Uninfected, 100mg/kg rbn	0/5	0/5
Uninfected, 50mg/kg rbn	0/5	0/5

^a # dead/ # challenged

^b ADD = $\frac{\sum[(\text{day of death}) \times (\# \text{ dead that day})]}{\text{total number of dead}}$ +/- S.D.

* ADD is significantly different from the saline treated controls at $p < .05$.

TABLE 33
COMPOUNDS RECEIVED FOR *IN VIVO* TESTING AGAINST PICHINDE

<u>AVS #</u>	<u>Shipment</u>	<u>Date Received</u>	<u>Quantity Received (g)</u>
52	22	5/5/87	2.0
79	22	5/5/87	2.0
111	22	5/5/87	2.0
148	22	5/5/87	1.85
167	22	5/5/87	2.0
206	27	7/21/87	10.0
215	26	6/26/87	8.0
253	22	5/5/87	0.678
272	22	5/5/87	0.073
272	33	11/3/87	4.0
332	22	5/5/87	2.0
346	33	11/3/87	1.22
360	22	5/5/87	2.0
646	27	7/21/87	4.0
925	33	11/3/87	1.71
1046	22	5/5/87	2.0
1250	22	5/5/87	2.0

Compounds AVS-52, AVS-79, AVS-111, AVS-148, AVS-167, AVS-206, AVS-215, AVS-253, AVS-332, AVS-360, AVS-646, AVS-1046 and AVS-1250 have been tested in the primary *in vivo* screen. The results of these assays are summarized in Appendix D.

Of the 13 compounds tested to date, several compounds were identified for further testing. AVS-206, dosed at 100 mg/kg qld x 7 days, had a VR of 1.6 (Ribavirin control VR = 1.8) and significantly prolonged the average day of death as compared to the diluent-treated control animals ($P = .006$). At a dose level of 32 mg/kg (qld x 7) AVS-206 had a VR = 1.4 and the average day of death was significantly prolonged ($p = .026$). The results are presented in Table 34 and shown graphically in Figure 15A. This compound was well tolerated at the 100 mg/kg dose level and testing at 200 mg/kg on a qld x 12 day schedule was performed. Compound was administered on a qld x 12 schedule with the first compound dose administered on day -1. The compound was administered 2 hours prior to virus inoculation on the day of virus challenge (day 0). The results of testing AVS-206 at 200 mg/kg in the 12 day prophylactic treatment protocol are shown in Table 35 and Figure 15B. This treatment protocol resulted in a significant difference in the percent mortality ($p = .005$) and the ADD ($P < 10^{-6}$) when compared to the diluent-treated infected controls. The GMTD for AVS-206 treated mice was 23.8 days and the VR was 2.5 while the Ribavirin-treated (100 mg/kg) infected animals had a GMTD of 25.8 days and a VR of 2.7. AVS-206 was not toxic at 200 mg/kg and further studies with this compound at higher dose levels and alternative treatment schedules is recommended.

AVS-1046 dosed at 32 mg/kg or 100 mg/kg (qld x 7) had a VR = 1.3 (Ribavirin control VR = 1.7). The average day of death was prolonged at both dose levels, however there was not a statistically significant difference ($p > .05$) between the AVS-1046 treated and the diluent treated ADD. The compound was well tolerated at 100 mg/kg and testing at higher dose levels is planned when adequate compound becomes available. The results are shown in Table 36.

TABLE 34
ANTIVIRAL EFFICACY OF AVS-206

Virus: Pichinde
Dosage Schedule: q1d x 7
Starting: Day 0

	<u>UNINFECTED</u>	<u>INFECTED</u>	<u>GMTD^c</u>	<u>VR^d</u>
Untreated	0/5 ^a	10/10 (10.1 ± 1.1) ^b	10.1	0.9
PBS	0/5	10/10 (10.8 ± 3.3)	10.4	1.0
100 mg/kg AVS 206	0/5	8/10 (15.3 ± 2.4)	17.1	1.6
32 mg/kg AVS 206	0/5	9/10 (14.0 ± 2.2)	14.9	1.4
10 mg/kg AVS 206	0/5	9/10 (13.1 ± 2.5)	13.9	1.3
3.2 mg/kg AVS 206	0/5	10/10 (10.4 ± 1.3)	10.3	1.0
100 mg/kg Ribavirin	0/5	7/10 (16.3 ± 1.8)	19.1	1.8

a # dead/# treated

b $ADD = \frac{\sum [(day\ of\ death) \times (\# \text{ dead that day})]}{\text{total number of dead}} \pm S.D.$

c GMTD = geometric mean time to death

d $VR = \frac{GMTD\ of\ Experimental}{GMTD\ of\ PBS\ Control}$

TABLE 35
RESULTS OF RETESTING AVS-206

Virus: Pichinde
Dosage Schedule: q1d x 12
Starting: Day -1

	<u>UNINFECTED</u>	<u>INFECTED</u>	<u>GMTD^c</u>	<u>VR^d</u>
Untreated	0/5 ^a	10/10 (9.5 ± 1.3) ^b	9.4	1.0
PBS	0/5	10/10 (9.7 ± 0.9)	9.7	1.0
200 mg/kg AVS 206	0/5	4/10 ^e (18.8 ± 1.5) ^f	23.8	2.5
100 mg/kg Ribavirin	1/5 (18.0 ± 0.0)	3/10 ^{gh} (21.7 ± 4.5) ⁱ	25.8	2.7
Virus Titration				
1 X 107 pfu/hamster		5/5 (9.0 ± 1.2)		
1 X 106 pfu/hamster		5/5 (8.6 ± 1.1)		
1 X 105 pfu/hamster		5/5 (9.2 ± 0.4)		
1 X 104 pfu/hamster		5/5 (10.0 ± 1.6)		
1 X 103 pfu/hamster		5/5 (9.4 ± 1.1)		
1 X 102 pfu/hamster		5/5 (10.2 ± 1.9)		
1 X 101 pfu/hamster		5/5 (9.8 ± 1.3)		

a # dead/# treated

b $ADD = \frac{\sum [(day\ of\ death) \times (\#\ dead\ that\ day)]}{total\ number\ of\ dead} \pm S.D.$

c GMTD = geometric mean time to death

d $VR = \frac{GMTD\ of\ Experimental}{GMTD\ of\ PBS\ Control}$

e Fishers' Exact Test comparing % mortality AVS 206 & PBS p = .005

f T-test of ADD p = <10-6

g Fishers' Exact Test comparing % mortality ribavirin & PBS p = .0015

h Fishers' Exact Test comparing % mortality ribavirin & AVS 206 p = 0.5

i T-test of ADD p = .000003

TABLE 36
ANTIVIRAL EFFICACY OF AVS-1046

Virus: Pichinde
Dosage Schedule: q1d x 7
Starting: Day 0

	<u>UNINFECTED</u>	<u>INFECTED</u>	<u>GMTD^c</u>	<u>VR^d</u>
Untreated	0/5 ^a	10/10 (10.5 ± 1.8) ^b	10.4	1.0
0.4% CMC in PBS	0/5	10/10 (10.8 ± 3.5)	10.4	1.0
100 mg/kg AVS 1046	0/5	10/10 (13.7 ± 2.9)	13.4	1.3
32 mg/kg AVS 1046	0/5	9/10 (12.3 ± 2.7)	13.1	1.3
10 mg/kg AVS 1046	0/5	10/10 (12.4 ± 4.7)	11.8	1.1
3.2 mg/kg AVS 1046	0/5	9/10 (10.9 ± 2.3)	11.8	1.1
100 mg/kg Ribavirin	0/5	7/9 (15.9 ± 3.3)	17.7	1.7

a # dead/# treated

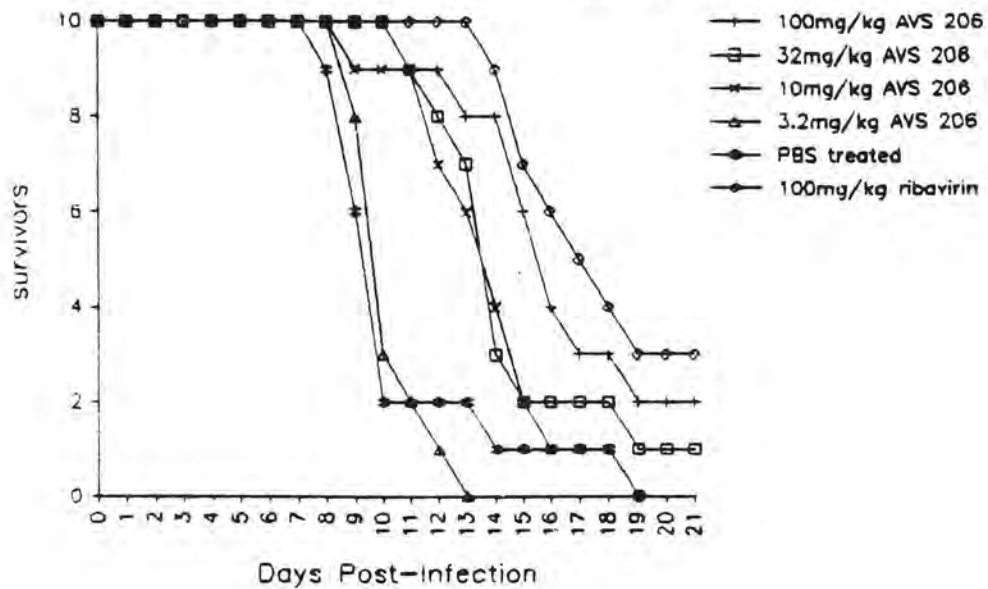
b $ADD = \frac{\sum [(day\ of\ death) \times (\# \text{ dead that day})]}{\text{total number of dead}} \pm S.D.$

c GMTD = geometric mean time to death

d $VR = \frac{GMTD\ of\ Experimental}{GMTD\ of\ PBS\ Control}$

A. Antiviral Efficacy of AVS 206

Compound given once daily days 0 - 7



B. Antiviral Efficacy of AVS 206

Compound given once daily days -1 to +10

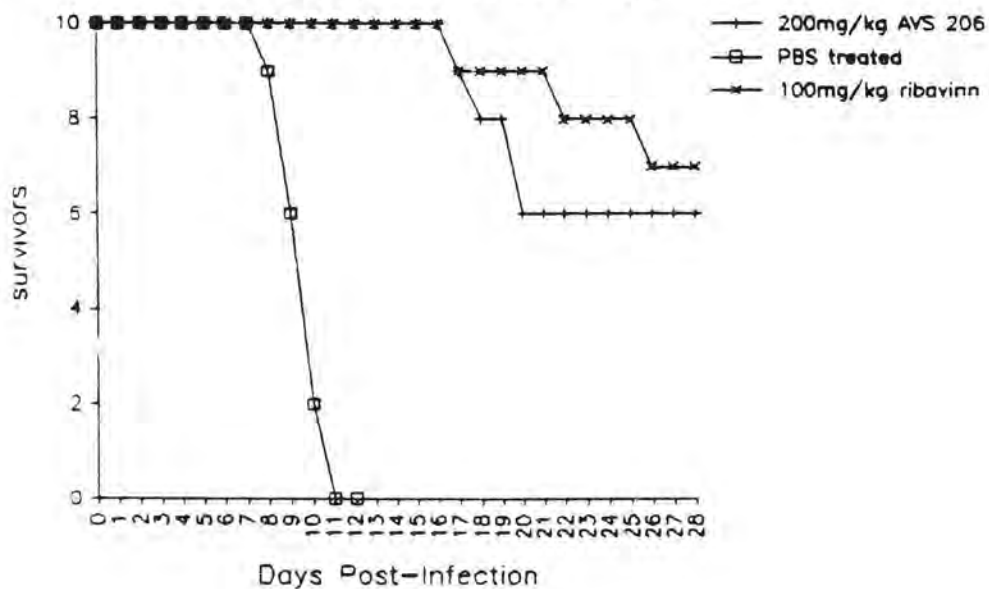


Figure 15. Antiviral efficacy of AVS-206 against Pichinde Virus in vivo.

Retesting of AVS-52, AVS-148, AVS-167, AVS-332 and AVS-646 at low dose levels on a longer treatment schedule was suggested because of slight increases in the GMTD at the lower dose levels of these compounds. When these compounds were retested on a qld x 12 schedule with the first compound dose administered on day -1 no antiviral efficacy was observed (see Appendix D for data).

4.3.2 Venezuelan Equine Encephalomyelitis Virus in CD-1 Mice

4.3.2.1 Model characterization

The initial *in vivo* challenge with VEE virus was conducted in outbred 20-25 gm (4-6 wk old) female Swiss mice (CD-1; virus antibody free (VAF+); Charles River Labs). Mice were challenged by the IP or IC route with virus inocula ranging from 10,000 to 12.5 pfu/mouse. All virus challenge levels tested were uniformly fatal by the IC and IP routes with the exception that the 100 pfu IP challenge group experienced 90% rather than 100% mortality. The ADD for IC inoculated animals ranged from 4.9 days to 6.1 days while the ADD for IP inoculated animals ranged from 6.9 days to 9.1 days. A second VEE challenge experiment was conducted and all challenge levels tested by the IC route (100-0.75 pfu/mouse) were again uniformly fatal. With three exceptions, (100 pfu, 12.5 pfu and 0.75 pfu 90% mortality) all IP challenge levels tested (250-0.75 pfu/mouse) were also fatal. The ADD for IC challenged animals ranged from 6.0 days to 7.3 days while the ADD for IP challenged animals ranged from 8.4 days to 9.9 days.

A third challenge experiment was performed using IP challenge levels ranging from 100 pfu to a theoretical 0.031 pfu per mouse and IC challenge levels ranging from 4 pfu to a theoretical 0.016 pfu per mouse. All IC challenge levels tested were uniformly fatal with an ADD range of 5.2 days to 8.4 days. An endpoint was reached for IP challenge however with an LD₅₀ of 0.051 pfu/mouse and an LD₉₀ of 0.18 pfu/mouse. The ADD for IP challenged animals ranged from 7.3 days to 9.3 days. A fourth experiment was performed to verify the results of the previous IP challenge experiment and to identify the endpoint for IC challenge. The results of this experiment have provided an endpoint for VEE challenge by the IP and the IC routes. There were no deaths in IC challenged animals at challenge levels of 0.0005 pfu or less while there was only 10% mortality in animals challenged IP with 0.016 pfu. The ADD for IP challenged animals ranged from 7.6 days to 11.8 days. The ADD for IC challenged animals ranged from 6.2 days to 8.5 days.

The cumulative results generated in all model development experiments with VEE are shown in Table 37. Based on these cumulative results, the LD₅₀ for VEE virus administered IC is 0.0051 pfu/mouse while the LD₅₀ for IP administered virus is 0.045 pfu/mouse. The LD₉₀ calculated from the cumulative data for IC inoculated passage 2 VEE virus is 0.016 pfu/mouse while the LD₉₀ for the IP inoculated virus is 0.13 pfu/mouse.

The results of the VEE challenge experiments prompted a re-evaluation of the VEE passage 2 virus *in vitro* titer which has been recalculated to be 1.4×10^8 pfu/ml. This new titer corrects the IP LD₅₀ to 0.45 pfu/mouse and the IP LD₉₀ to 1.3 pfu/mouse. The corrected IC LD₅₀ is 0.051 pfu/mouse and the corrected IC LD₉₀ is 0.16 pfu/mouse. The IC LD₅₀ and LD₉₀, are significantly less than 1 pfu/mouse which may be due to differences in *in vitro* and *in vivo* virulence. A similar effect was reported by Taylor *et al.* (1980) in JE virus challenge studies performed in mice.

TABLE 37
 CUMULATIVE DATA OBTAINED IN ALL VEE TITRATION EXPERIMENTS

<u>CHALLENGE</u>	<u>IP MORTALITY^a</u>	<u>IC MORTALITY^b</u>
Virus diluent	0/35 ^c	0/40
10000 pfu	10/10	9/9
1000 pfu	10/10	10/10
500 pfu	10/10	10/10
250 pfu	20/20	10/10
125 pfu	10/10	10/10
100 pfu	28/30	20/20
50 pfu	19/19	20/20
25 pfu	19/19	19/19
16 pfu	9/10	ND ^d
12.5 pfu	19/20	10/10
10 pfu	10/10	ND
6.3 pfu	9/9	10/10
4 pfu	9/10	10/10
3.1 pfu	10/10	10/10
1.5 pfu	10/10	10/10
1.0 pfu	20/20	10/10
0.75 pfu	9/10	9/9
0.5 pfu	20/20	10/10
0.25 pfu	20/20	20/20
0.125 pfu	16/20	20/20
0.063 pfu	16/20	19/19
0.031 pfu	7/20	20/20
0.016 pfu	1/10	18/20
0.008 pfu	ND	7/10
0.004 pfu	ND	4/10
0.002 pfu	ND	3/10
0.001 pfu	ND	2/10
0.0005 pfu	ND	0/10
0.00025 pfu	ND	0/10

^a Mortality induced after intraperitoneal challenge.

^b Mortality induced after intracerebral challenge.

^c # dead/total # challenged

^d ND = not determined

4.3.2.2 Antiviral evaluations

To date six compounds have been received for evaluation in the VEE *in vivo* model. These compounds and the quantities are shown in Table 38. The results of the *in vivo* assays with these compounds are summarized in Appendix D.

TABLE 38
COMPOUNDS RECEIVED FOR *IN VIVO* EVALUATION AGAINST VEE

<u>AVS #</u>	<u>Shipment</u>	<u>Date</u>	<u>Amount (g)</u>
79	33	11/3/87	2.0
206	27	7/21/87	10.0
272	33	11/3/87	4.0
347	33	11/3/87	1.74
360	13	11/13/86	3.0
646	27	7/21/87	4.0

The first compound (AVS-360) was assessed in a qld x 7 day therapeutic protocol in which the first dose was administered 4 hours after virus inoculation. During discussions with Major M. Ussery (USAMRIID) a prophylactic protocol was determined to be superior for preliminary compound screening against VEE. All subsequent assays have been performed on a prophylactic protocol in which compounds are administered qld x 7 days with the first dose given on day -1.

Antiviral efficacy of AVS-360 administered on a therapeutic treatment schedule (qld x 7, beginning day 0) is shown in Table 39. Animals receiving 3.2 mg/kg had a 60% mortality rate which was significantly reduced when compared to the diluent treated controls ($p = .04$). Back-challenge on day 25 of the previously challenged animals resulted in an overall mortality rate of 69% while the naive animals had an overall mortality rate of 76%.

The results of testing AVS-360 in a prophylactic protocol (qld x 7, beginning day -1) at 1 mg/kg to 100 mg/kg are shown in Table 40. A drug-diluent treated virus infected control group was not included in this experiment therefore all comparisons have been made to the untreated virus infected control animals. With the exception of the 32 mg/kg AVS-360 treated group all animals receiving AVS-360 had a mortality rate of 80%. The 32 mg/kg AVS-360 treatment group had a 100% mortality rate and the untreated virus infected controls had a 90% mortality rate. AVS-360 at 3.2 mg/kg on a qld x 12 day prophylactic treatment schedule was ineffective in decreasing mortality or increasing the ADD (Table 42).

The results of testing AVS-206 for antiviral efficacy against VEE challenge in a prophylactic treatment protocol are shown in Table 41. AVS-206 was not lethal at 1000 mg/kg (qld x 7 days) although the animals did suffer a slight loss in weight. All lower dose levels tested were well tolerated. Accidental loss of 5 animals in the 100 mg/kg AVS-206 treatment group on day 6 post viral challenge may have artificially increased the percent mortality results at this dose level and the GMTD and ADD. Although there was a decrease in mortality, the ADD was not increased in the AVS-206 treated animals when compared to the diluent-treated virus infected control animals. Back challenge of the survivors on day 34 with 1000 pfu on VEE resulted in 100% mortality. Further testing of AVS-206 against VEE will be performed when additional compound becomes available.

TABLE 39
THERAPEUTIC ANTIVIRAL EFFICACY OF AVS-360

	<u>UNINFECTED</u>	<u>INFECTED</u>	<u>GMTD^c</u>	<u>VR^d</u>
Virus: VEE				
Dosage Schedule: q1d x 7				
Starting: Day 0				
Untreated	0/10 ^a	7/10 (8.4 ± 1.4) ^b	11.6	1.4
Virus diluent	0/10	NA		
Drug diluent ^e X 7 days	0/5	10/10 (8.2 ± 1.5)	8.1	1.0
100 mg/kg AVS 360 X 7 days	0/5	7/10 (8.0 ± 0.8)	11.2	1.4
32 mg/kg AVS 360 X 7 days	0/5	7/10 (7.4 ± 1.1)	10.6	1.3
10 mg/kg AVS 360 X 7 days	0/5	9/10 (8.0 ± 1.7)	8.8	1.1
3.2 mg/kg AVS 360 X 7 days	0/5	6/10 (8.7 ± 1.0)	13.2	1.6

a # dead/# treated
b $ADD = \frac{\sum [(day\ of\ death) \times (\#\ dead\ that\ day)]}{total\ number\ of\ dead} \pm S.D.$
c GMTD = geometric mean time to death
d $VR = \frac{GMTD\ of\ Experimental}{GMTD\ of\ PBS\ Control}$
e The drug diluent was 0.4% carboxymethylcellulose in phosphate-buffered saline (pH 7.2).

TABLE 40
PROPHYLACTIC ANTIVIRAL EFFICACY OF AVS-360

	UNINFECTED	INFECTED	GMTD ^c	VR ^d
Virus: VEE				
Dosage Schedule: q1d x 7				
Starting: Day -1				
100 mg/kg AVS 360	0/5 ^a	8/10 (8.4 ± 1.2) ^b	10.6	1.1
32 mg/kg AVS 360	0/4	10/10 (8.0 ± 1.3)	7.9	0.8
10 mg/kg AVS 360	0/4	8/10 (9.6 ± 2.9)	11.6	1.2
3.2 mg/kg AVS 360	0/4	8/10 (9.5 ± 2.3)	11.6	1.2
1 mg/kg AVS 360	0/4	8/10 (8.5 ± 1.2)	10.7	1.1
Untreated control	0/4	9/10 (9.0 ± 1.5)	9.5	1.0

a # dead/# treated

b $ADD = \frac{\sum [(day\ of\ death) \times (\#\ dead\ that\ day)]}{total\ number\ of\ dead} \pm S.D.$

c GMTD = geometric mean time to death

d $VR = \frac{GMTD\ of\ Experimental}{GMTD\ of\ PBS\ Control}$

TABLE 41
ANTIVIRAL EFFICACY OF AVS-206 AND AVS-646

Virus: VEE
Dosage Schedule: q1d x 7
Starting: Day -1

	<u>UNINFECTED</u>	<u>INFECTED</u>	<u>GMTD^c</u>	<u>VR^d</u>
Untreated	0/4 ^a	3/5 ^e (10.0 ± 1.0) ^b		
PBS	0/5	10/10 (8.1 ± 1.4)	8.0	1.0
Sham-infected	0/5	NA		
1000 mg/kg AVS 206	0/5	8/10 (7.1 ± 1.8)	9.2	1.2
320 mg/kg AVS 206	0/5	8/10 (8.3 ± 0.5)	10.5 ^e	1.3
100 mg/kg AVS 206	0/5	5/5 ^e (8.0 ± 2.0)	7.8 ^e	1.0
3.2 mg/kg AVS 206	0/5	10/10 (7.8 ± 0.6)	7.8	1.0
10 mg/kg AVS 206	0/5	7/10 (8.1 ± 1.6)	11.7	1.5
100 mg/kg AVS 646	0/3 ^f	7/7 ^f (6.7 ± 3.5)	5.9 ^f	0.7
32 mg/kg AVS 646	0/5	8/10 (8.3 ± 1.5)	10.4	1.3
10 mg/kg AVS 646	0/5	9/10 (8.3 ± 0.7)	9.4 ^f	1.2
3.2 mg/kg AVS 646	0/5	7/7 ^f (8.6 ± 2.1)	8.4 ^f	1.1
1 mg/kg AVS 646	0/5	8/10 (7.9 ± 1.2)	10.1	1.3

^a # dead/# treated

^b ADD = $\frac{\sum [(day\ of\ death) \times (\#\ dead\ that\ day)]}{total\ number\ of\ dead} \pm S.D.$

^c GMTD = geometric mean time to death

^d VR = $\frac{GMTD\ of\ Experimental}{GMTD\ of\ PBS\ Control}$

^e 5 animals lost due to an accident in which the cages were knocked down therefore the GMTD is artificially low.

^f 3 animals lost due to an accident in which the cages were knocked down therefore the GMTD is artificially low.

AVS-646 was not lethal at dose levels of 1 mg/kg to 100 mg/kg; however animals receiving 3.2-100 mg/kg qld x 7 days did suffer weight loss, and animals receiving 1 mg/kg qld x 7 days failed to gain weight. None of the doses tested prolonged the ADD although the percent mortality was 80% in animals receiving 32 mg/kg or 1 mg/kg AVS-646 (Table 41). The mortality rates in animals receiving 100 mg/kg or 3.2 mg/kg AVS-646 may be artificially high because of an accidental loss of 3 animals in each of these treatment groups. Back challenge of the survivors on day 34 with 1000 pfu of VEE resulted in 100% mortality. Results of testing AVS-646 on a qld x 12 day prophylactic treatment schedule are shown in Table 42. AVS-646 at dose levels of 0.5 mg/kg to 32 mg/kg did not enhance the percentage of survivors nor increase the ADD significantly when compared to the drug diluent treated virus infected controls.

TABLE 42
PROPHYLACTIC ANTIVIRAL EFFICACY OF AVS-360 AND AVS-646

Virus: VEE	Dosage Schedule: qid x 12	Starting: Day -1	<u>UNINFECTED</u>	<u>INFECTED</u>	<u>GMTD^c</u>	<u>VR^d</u>
0.4% CMC in PBS			0/5 ^a	8/10 (8.3 ± 1.5) ^b	10.4	1.0
32 mg/kg AVS 646			0/5	10/10 (8.2 ± 0.9)	8.2	0.8
10 mg/kg AVS 646			0/5	8/10 (8.1 ± 1.0)	10.4	1.0
3.2 mg/kg AVS 646			0/5	9/10 (8.1 ± 1.5)	9.1	0.9
1 mg/kg AVS 646			0/5	8/10 (8.8 ± 1.3)	11.0	1.1
0.5 mg/kg AVS 646			0/5	9/10 (9.1 ± 1.8)	10.0	1.0
3.2 mg/kg AVS 360			0/5	9/10 (8.8 ± 1.5)	9.8	0.9
1 mg/kg AVS 360			0/5	9/10 (8.4 ± 0.7)	9.5	0.9

a # dead/# treated

b $ADD = \frac{\sum [(day\ of\ death) \times (\#\ dead\ that\ day)]}{total\ number\ of\ dead} \pm S.D.$

c GMTD = geometric mean time to death

d $VR = \frac{GMTD\ of\ Experimental}{GMTD\ of\ PBS\ Control}$

5. DISCUSSION

A number of the submitted compounds exhibited highly selective activity against vaccinia virus (VV) *in vitro* (Table 3). Six of the active compounds (AVS numbers 1211, 2964, 2700, 3593, 2716, and 2275) are of special interest since they also showed efficacy against human adenovirus in cell culture. Clearly these candidate antivirals should also be evaluated for their effects on other DNA-containing viruses. All of the vaccinia virus-active compounds, or at least representatives of each class of active compound, should be examined for efficacy against VV *in vivo* and the most active compounds and their congeners deserve further *in vitro* study to delineate the full spectra of their antiviral activities. Compounds effective against VV might also be examined for efficacy against herpesviruses, especially human cytomegalovirus.

The most active anti-vaccinia virus compounds (AVS-2875, AVS-2994, and AVS-3533) demonstrated remarkable efficacy and selectivity against this poxvirus *in vitro* with VR's >7.0 and TI values >600. The significant activity of each of these antiviral compounds was readily confirmed (Table 4) and these materials represent exciting lead compounds for further study. Excellent reproducibility and consistency of results was obtained in our antiviral screening operations with VV *in vitro*, and *in vivo* assay systems are available in our laboratories for pursuit of these candidate drugs. *In vivo* testing will be accomplished with these compounds during the next reporting period.

The most interesting active compound against Adenovirus type 2 has been AVS-2700 (see Table 6). It has repeatedly yielded good virus ratings (values of 2.7, 3.7, 3.6, and 1.8) and appears to be quite potent (ID₅₀ of 0.21 µg/ml to 0.45 µg/ml). However, it may be limited by its toxicity. Should antiviral activity with AVS-2700 be further confirmed by a significant inhibitory effect on Adenovirus type 2 plaque formation in quantitative plaque-reduction assays, then it should be screened for efficacy against other adenovirus types *in vitro* and evaluated in an animal model system. Pacini *et al.* (1984) reported an animal model system for adenovirus in which one-month-old cotton rats were infected by the intranasal route. Although clinical symptoms were not observed, the virus replication pattern and the pulmonary histopathology observed after infection were reported to parallel findings in the human disease.

A limited number of compounds have demonstrated significant antiviral activity against VSV (Tables 7 and 8). AVS-2350 (human recombinant interferon gamma) was clearly the most potent active material with a TI >300. It will be further discussed later in this Discussion section. Compound AVS-2503 was, overall, the most active candidate antiviral against VSV with VR's > 4.0, ID₅₀ of 1.4 to 1.6 µg/ml, and MTC of 100 µg/ml. This compound should now be evaluated for efficacy against VSV in mice.

A number of compounds were found to be active against Punta Toro virus in initial CPE-inhibition assays (Table 10), but only four of ten active compounds exhibited activity in confirmatory tests (Table 11). Additional retesting of these materials will be required to assess their potential as candidate antivirals. Extensive analysis of the data was begun in an attempt to determine the underlying causes of test variability and lack of confirmation of activity in this assay system.

Confirmatory testing of active compounds against sandfly fever (SF) virus also indicated serious problems with the reproducibility of test results in this system (Table 14). Only five (5) of twenty (20) active compounds were confirmed as having selective antiviral

activity. These compounds will also have to be tested a third time in the CPE-inhibition assay. Confirmatory plaque-reduction assays were begun during this report period and this more quantitative assay procedure will also be employed to verify the significant activity of candidate test compounds.

A number of active compounds against Pichinde (PIC) virus were uncovered (Table 15; Figure 3) and these will be pursued as candidate antivirals in *in vivo* testing in hamsters.

Compounds active against Venezuelan equine encephalomyelitis (VEE) virus included AVS-2350, AVS-1089, and AVS-257 (Table 16). The latter two compounds are appropriate candidates for evaluation as chemotherapeutic agents against VEE infections in mice. *In vivo* studies with AVS-2350 (human recombinant IFN- γ) will require evaluation in a primate model because of the species-specificity of this active antiviral product.

Fifteen compounds yielded significant efficacy against Yellow Fever (YF) virus in the primary screen with $TI \geq 10$ (Table 17). However, only one (1) of eleven (11) compounds retested in a confirmatory CPE-inhibition assay exhibited a TI value close to the value reported in the original tests, and only three (3) compounds would even be considered as having *in vitro* activity at all (Table 18). Obviously, there are serious problems with the reproducibility of assay results with this system and careful analysis of this problem is both warranted and necessary so that corrective action might be implemented to tighten up this screen. Again, the compounds will have to be re-evaluated a third time to determine their true potential as antivirals.

Two compounds demonstrated reproducible activity against Japanese encephalitis (JE) virus *in vitro* (Table 20). These compounds (AVS-136 and AVS-2318) should now be evaluated for their therapeutic efficacy against JE infections in mice.

Developmental work on a quantitative plaque-reduction assay for the evaluation of compounds against Hantaan (HTN) virus has continued in our laboratories during the current report period, but it is now thought that an ELISA-based assay procedure will be a much more practical and useful type of method to employ for high-volume screening of compounds against HTN virus *in vitro*. The ELISA will also be amenable to automated plate-reading.

Much of the exotic RNA virus antiviral screen will be converted to an MTT microculture assay system which will also make use of automated plate-reading systems and data capture on computers during the next annual report period. Such a system can also be used for the evaluation of compounds against the DNA-containing viruses as well and should improve the efficiency of the primary screening program significantly. It is also believed that, for the exotic RNA virus screen, automated plate-reading will improve the reliability, consistency, and accuracy of the antiviral test data being collected. Variability in test results observed during the past year could have been due to a number of factors including: host cell differences, cell passage-level differences, technician turn-over and differences in the subjective scoring of virus-induced CPE by new or inexperienced technicians, differences in the initial cell inocula in assay plates between virus-host cell assay systems, differences in media components, variation in the toxicity of compounds due to chemical degradation, resynthesis, or other factors such as improper storage, and variations in the performance of the assay techniques themselves. The preliminary CPE-inhibition assay, performed by experienced technicians, has yielded excellent and reproducible antiviral screening data in these laboratories for years. However, the variation and inconsistencies observed in the exotic RNA virus screen have been at an unacceptable level for a primary *in vitro* screen

over the past few months and we are planning changes which should minimize this variability of test results.

One of the compounds evaluated this reporting period was known to have a biological response modifying activity. AVS-2350, human recombinant interferon gamma (IFN- γ), was tested in eight of our eleven primary antiviral screens, and exhibited potent antiviral activity against seven of these viruses. Since this compound was known to be a biological response modifying agent, our standard CPE-inhibition assay was modified by including a pretreatment step in the evaluation of AVS-2350. Table 43 summarizes the results from our antiviral testing of AVS-2350. This compound showed the greatest activity (VR of 6.6), potency (ID₅₀ of 0.4 units/ml or 20 picograms/ml), and selectivity (TI of >55,000) against JE virus. In fact, good activity was seen against all of the RNA-containing viruses tested. Less activity was seen against the DNA-virus Adenovirus type 2 (VR of 1.8 and TI of 3.2), and no antiviral activity was seen against Vaccinia Virus. Interferons typically display considerable species-specificity in their actions. The antiviral effects we observed are extremely promising considering our use of a primate host cell line [African green monkey kidney (Vero) cells] rather than human cells for evaluating this human IFN- γ *in vitro*.

TABLE 43

ANTIVIRAL ACTIVITY OF HUMAN RECOMBINANT INTERFERON
GAMMA (AVS-2350)^a

Virus	VR	MTC		ID ₅₀		TI
		Units/ml	ng/ml	Units/ml	ng/ml	
JE	6.6	>20,000	1000	0.4	0.02	56,182
VSV	1.9	200,000	10,000	632	31.6	317
YF	3.5	>20,000	1000	84.4	4.22	237
SF	2.7	>20,000	1000	140	7	143
VEE	2.9	200	10	2.8	0.14	71.2
PT	1.9	20,000	1000	581	29	34.4
AD	1.8	20	1.0	6.3	0.31	3.2
VV	>0.3	>20,000	1000	>20,000	>1000	--

^aAssays for all viruses were done in Vero cells, except for AD which was done in HEp-2 cells. The abbreviations are defined in the footnote to Table 3.

Antiviral screening against the Human Immunodeficiency Virus (HIV) was performed with compounds submitted to Southern Research Institute from USAMRIID (through Techna-ssociates, Inc.) and from the National Cancer Institute. Expansion of this high priority program has been the goal during the present report period with the screening of NSC compounds in the XTT microculture assay using MT-2 cells reaching the goal of 8,000 compounds per year (160 compounds per week) by October 1987. A number of AVS compounds have exhibited significant activity against HIV *in vitro* (Tables 22 and 23), with some having activity equivalent to that of 2',3'-dideoxycytidine (ddC), the positive control drug. Among the compounds submitted by the NCI, NSC-614846 exhibited very significant and reproducible anti-HIV activity, comparable to that of ddC, in MT-2 cells. Much additional work will be required to assess the potential usefulness of these new antiviral compounds for the treatment of AIDS. Confirmatory tests in HeLa-T4⁺ cells and secondary evaluations in the MAIDS, FAIDS, and SAIDS assay systems have been conducted, with good agreement of data among these assays (Table 26). In addition, immunofluorescence assays to determine

progeny virus yield (measured by determining the levels of p24 gag protein production in H9 cells) were also found to be useful for confirmation of antiviral efficacy. Optimal conditions for the assay of HIV reverse transcriptase (RT) have been determined and experiments to assess the intra-run reproducibility of the assay procedure have been conducted. Work supported by this contract also resulted in the development of the HeLa-T4⁺ cell syncytial focus-inhibition assay for the quantitative evaluation of potential anti-HIV compounds *in vitro* (Shannon *et al.*, Progr. Abstr. 27th Intersci. Conf. Antimicrob. Agents Chemother., Abstr. No. 379, p. 163, 1987). This assay appears to be a very useful and sensitive assay for the quantitation of antivirals with activity against HIV and represents a more traditional plaque-reduction assay procedure utilizing non-lymphoid cells in monolayer culture.

Antiviral evaluations *in vivo* have been conducted with compounds tested against Pichinde (PIC) virus in MHA strain hamsters and with compounds tested against VEE in CD-1 Swiss mice. Thirteen (13) compounds were tested against PIC during the report period. Of these, AVS-206 yielded the most promising results in chemotherapy trials. This compound produced increases in life span and yielded *in vivo* VR values similar to that obtained with Ribavirin, the positive control drug. AVS-206 is the carboxamidine derivative of Ribavirin (AVS-001) and has the advantage of being less toxic and better tolerated by the host animals.

During this report period, six (6) compounds were evaluated for *in vivo* efficacy against lethal VEE infections in mice. AVS-360, when administered on a prophylactic protocol, did not appear to be very effective against this overwhelming infection (Table 40). AVS-206, on the other hand, may have produced a slight decrease in the mortality rate, but had no effect on the geometric mean time to death (GMTD) value. Additional work is planned to further evaluate AVS-206 *in vivo*.

In general, the primary screening of compounds for antiviral activity *in vitro* against most of the target viruses was implemented during the current reporting period. The percentage of active compounds relative to the total number of compounds tested against each virus is presented in Figure 16. As can be seen, we are detecting activity at a rate of approximately 5 to 10% of the compounds against most of the challenge viruses. Although the total number of compounds tested against PIC is lower, the percentage of actives against this virus was somewhat higher (27%). It is interesting to note that the percentage of active compounds among the AVS compounds tested against HIV was about 15%, whereas the percentage of active compounds among the NSC compounds tested against HIV was only about 1%. This probably reflects the fact that the NCI screen may have a higher percentage of more toxic (anticancer) compounds submitted, may have a broader range of materials, may be a more empirical screen, and certainly does not have as many compounds with known antiviral activity against other viruses flowing into the screen as does the USAMRIID screen.

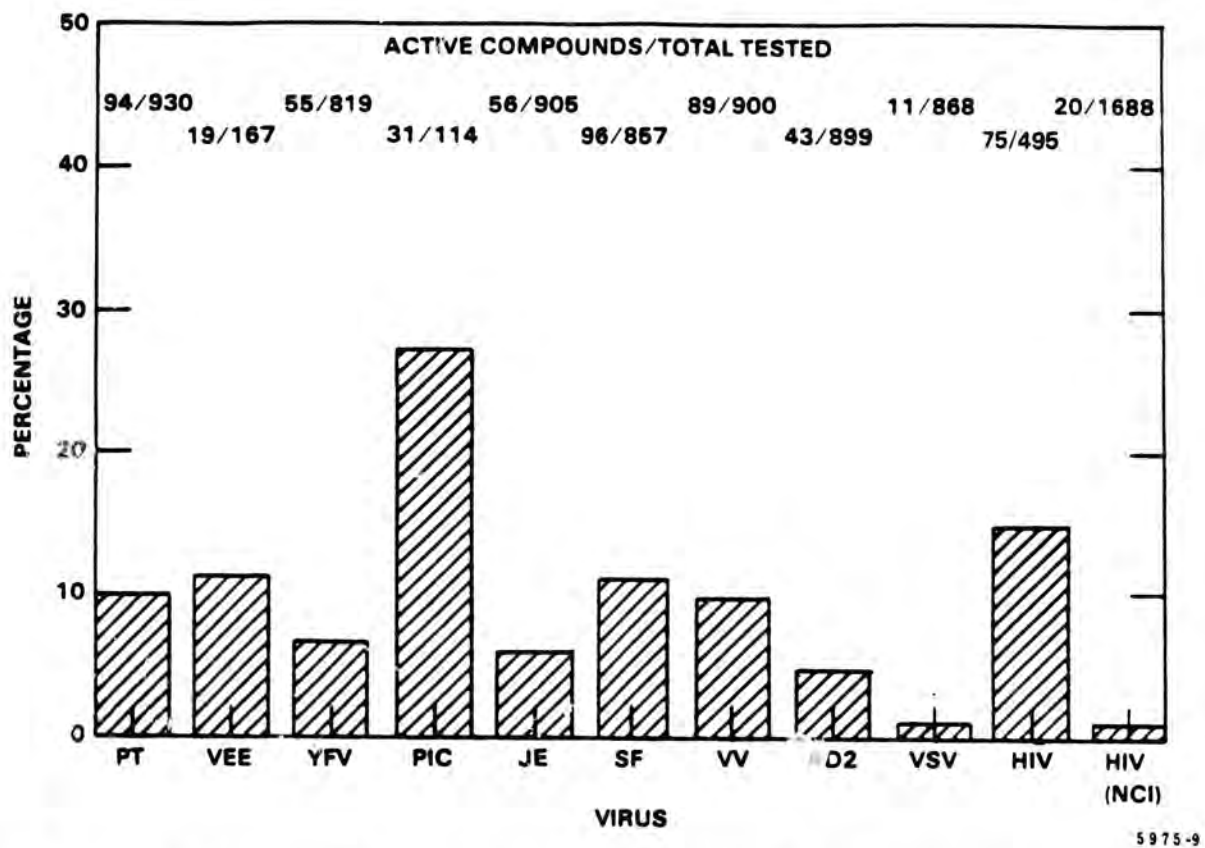


Figure 16. Percentage of compounds tested having antiviral activity for each primary in vitro screen.

6. ACKNOWLEDGMENTS

Mr. David Baggett (Associate Microbiologist), Ms. Sharon Chynoweth (Assistant Biologist), Ms. Cynthia Doggett (Assistant Biologist), Ms. Lindsey Deckard (Assistant Microbiologist), Ms. Carol Eldridge (Associate Biologist), Mr. Darryl Hicks (Assistant Biologist), Ms. Jody Jones (Assistant Biologist), Mr. Richard Kirkman (Assistant Microbiologist), Ms. Beverly Roberts (Assistant Microbiologist), and Ms. Ellen Stringfeellow (Assistant Biologist) performed the *in vitro* antiviral evaluations against the DNA viruses and exotic RNA viruses. Mr. Donald Decker (Assistant Biologist), Mr. Joseph Johnson (Assistant Biologist), Mr. Jeffrey McCurdy (Associate Microbiologist), Ms. Teresa McDuffie (Assistant Biologist), Mr. Christopher McGee (Associate Microbiologist), Ms. Pamela Pruett (Assistant Biologist), Ms. Jeanine Qualls (Assistant Biologist), Mr. Thomas Rowe (Assistant Molecular Biologist), and Ms. Robin Worsham (Assistant Biologist) performed the primary *in vitro* antiviral evaluations against HIV.

Ms. Sherri Campbell (Biological Technician), Ms. Joan Conway (Assistant Biologist), Mr. Ali Danner (Biological Technician), Ms. Carrie Edwards (Biological Technician), Ms. Renee McCurdy (Assistant Programmer), Ms. Rose Smith (Assistant Biologist), and Ms. Judith Talley (Biological Technician) prepared compounds for testing and helped with data entry and processing.

Ms. LaJuana Farris (Biological Technician), Mr. Byron Lambert (Assistant Biologist), and Mr. Frank Vance (Biological Technician) performed the *in vivo* antiviral evaluations. Ms. Bonnie Bowdon (Research Biochemist) performed the HIV-immunofluorescence assays. Ms. Lucile White (Research Biochemist) and Mr. James Konzelman (Assistant Chemist) performed the reverse transcriptase assays. Mrs. Kelli Agnew, Mrs. Beatrice Baskerville, and Mrs. Reta Sisk provided excellent secretarial assistance for this project.

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APPENDICES

Appendix A

Complete Listing of Active Compounds

APPENDIX A
 TABLE 1
 COMPOUNDS ACTIVE AGAINST VACCINIA VIRUS^a

<u>AVS #</u>	<u>Shipment</u>	<u>VR</u>	<u>VR</u> [*]	<u>ID</u> ₅₀	<u>MTC</u>	<u>TI</u>
2875	26	7.3	2.4	0.3	320	1000
2994	27	7.1	2.4	0.1	100	916.8
3533	31	7.1	2.4	0.5	320	653.6
3534	31	6.8	2.3	0.7	320	433.7
2913	26	6.1	2.0	1.0	320	313.7
2911	26	6.2	2.1	1.0	320	309.9
2896	26	6.0	2.0	1	320	295.2
2895	26	5.8	1.9	1.3	320	251.3
2912	26	5.9	2.0	1.4	320	220.8
2888	26	5.3	1.8	2.3	320	139.0
2874	26	5.2	1.7	2.3	320	136.8
2890	26	5.3	1.8	2.4	320	134.1
2879	26	5.1	1.7	2.4	320	133.6
2995	27	5.2	1.7	3.1	320	104.5
2321	26	1.4	0.5	0.3	32	103.1
2902	26	3.7	1.2	0.3	32	100.0
2904	26	4.0	1.3	3.2	320	100.0
2891	26	4.7	1.6	3.7	320	86.9
2903	26	4.4	1.5	5.0	320	64.0
2889	26	4.3	1.4	6.4	320	50.2
3593	32	4.2	1.4	0.3	10	39.5
2873	26	3.3	1.1	10.7	320	29.9
2860	20	2.5	0.8	3.2	32	10.0
2992	27	2.1	0.7	33.7	320	9.5
2906	26	2.2	0.7	11.4	100	8.7
2568	21	1.9	0.6	37.6	320	8.5
2716	22	1.6	0.5	13.1	100	7.7
2275	12	2.1	0.7	14.8	100	6.8
2297	11	3.4	1.1	5.0	32	6.4
0707	30	1.9	0.7	16.9	100	5.9
3535	31	2.3	0.8	55.1	320	>5.8
2689	22	1.5	0.5	57.9	320	5.5
1211	27	1.5	0.5	62.1	20	5.2
2964	27	2.3	0.8	20.4	100	4.9
1159	27	1.4	0.5	22.2	100	4.5
2786	24	1.1	0.4	71.0	320	4.5
2966	27	2.2	0.7	22.7	100	4.4
2323	13	2.8	0.9	2.4	10	4.3
2991	27	1.6	0.5	0.8	3.2	4.1
1947	28	1.5	0.5	7.8	32	4.1
2893	26	1.7	0.6	86.7	320	3.7
2512	20	2.1	0.7	8.7	32	3.7
2336	13	1.5	0.5	88.4	320	3.6
2743	18	1.5	0.5	88.4	320	3.6

2449	18	1.5	0.5	88.4	320	3.6
2688	22	1.3	0.4	3.1	10	3.3
2866	20	1.8	0.6	100.0	320	3.2
2326	13	1.7	0.6	103.0	320	3.1
2700	22	3.2	1.1	1.1	3.2	3.0
1019	28	3.0	1.0	3.3	10	3.0
2914	26	1.3	0.4	129.0	320	2.5
2503	11	2.8	1.0	1.13	3.2	2.4
2765	22	1.7	0.6	47.7	100	2.1
2714	22	1.0	0.4	15.6	32	2.0
3036	28	1.3	0.4	5.4	10	1.9
2587	19	1.7	0.6	55.1	100	1.8
3536	31	1.2	0.4	179.0	>320	>1.8
2946	26	1.2	0.4	57.9	100	1.7
2690	22	1.3	0.4	60.6	100	1.6
2403	16	1.1	0.4	69.4	100	1.4
2943	26	1.4	0.5	244.0	320	1.3
2302	11	2.6	0.9	2.6	3.2	1.2
2615	19	1.1	0.4	296.0	320	1.1

a. Compounds identified by their AVS number are listed in descending order from the most active to the least active. CPE-inhibition assays were done in Vero cells. An active compound is defined here as having a therapeutic index (TI) of greater than 1.0 and a virus rating (VR) of 1.0 or greater. The VR is a measurement of selective antiviral activity which takes into account the degree of inhibition of virus-induced CPE and the degree of cytotoxicity produced by the test compound, determined by a modification of the method of Ehrlich et al. (1965). VR is the designation for the virus rating calculated by the method of Sidwell and Huffman (1971). The drug concentration which reduced the CPE by 50% (50% inhibitory dose, ID₅₀) was calculated using a regression analysis program for semilog curve fitting and is expressed as $\mu\text{g/ml}$. The minimum cytotoxic drug concentration (MTC) is also expressed as $\mu\text{g/ml}$. The therapeutic index of a test compound was determined by dividing the MTC by the ID₅₀. Selenazole (AVS-253) and Ara-A (AVS-1752) were run in parallel as positive controls. Typical results with Selenazole were a VR between 1.5 and 3.0, an ID₅₀ between 8 $\mu\text{g/ml}$ and 15 $\mu\text{g/ml}$, and a TI of 0.6 to 4.0. For Ara-A the values ranged between 2.5 and 4.5 for the VR, between 0.6 $\mu\text{g/ml}$ and 3.0 $\mu\text{g/ml}$ for the ID₅₀, and between 3.0 and 15.0 for the TI.

APPENDIX A

TABLE 2
COMPOUNDS ACTIVE AGAINST ADENOVIRUS TYPE 2^a

AVS #	Shipment	VR	VR*	ID ₅₀	MTC	TI
2318	13	1.7	0.6	0.3	3.2	10.0
2980	25	2.1	0.7	1.5	10	6.8
1211	27	1.3	0.4	4.9	32	6.5
2247	12	1.3	0.4	49.8	320	6.4
1215	27	1.1	0.4	62.9	320	5.1
1210	27	1.1	0.4	19.9	100	5.0
2988	27	1.0	0.3	70.9	320	4.5
2994	27	1.5	0.5	25.4	100	3.9
2409	16	1.4	0.5	2.8	10	3.6
2303	11	1.1	0.4	90.6 ^b	320 ^b	3.5
2350	14	1.8	0.6	6.3 ^b	20 ^b	3.2
2986	27	1.7	0.6	100	320	3.2
2985	27	1.2	0.4	100	320	3.2
2964	27	1.2	0.4	100	320	3.2
2700	22	2.7	0.9	0.3	1	3.1
2529	20	1.4	0.5	0.0	0.1	3.1
2296	11	1.1	0.6	11.0	32	2.9
2979	25	1.7	0.6	11.4	32	2.8
3593	30	2.7	0.9	3.7	10	2.7
2716	22	1.1	0.4	12.6	32	2.5
2604	19	1.1	0.4	129	320	2.5
2909	26	1.0	0.3	136	320	2.4
2960	27	1.1	0.4	44.4	100	2.3
2981	27	1.0	0.4	53.7	100	1.9
2625	19	1.3	0.4	179	320	1.8
2787	24	1.2	0.4	179	320	1.8
2275	12	1.6	0.5	57.5	100	1.7
2995	27	1.1	0.4	200	320	1.6

a. Compounds identified by their AVS number are listed in descending order from the most active to the least active. CPE-inhibition assays were done in HEP-2 cells. An active compound is defined here as having a therapeutic index (TI) of greater than 1.0 and a virus rating (VR) of 1.0 or greater. The VR is a measurement of selective antiviral activity which takes into account the degree of inhibition of virus-induced CPE and the degree of cytotoxicity produced by the test compound, determined by a modification of the method of Ehrlich et al. (1965). VR is the designation for the virus rating calculated by the method of Sidwell and Huffman (1971). The drug concentration which reduced the CPE by 50% (50% inhibitory dose, ID₅₀) was calculated using a regression analysis program for semilog curve fitting and is expressed as $\mu\text{g/ml}$. The minimum cytotoxic drug concentration (MTC) is also expressed as $\mu\text{g/ml}$. The therapeutic index of a test compound was determined by dividing the MTC by the ID₅₀. Ribavirin (AVS-001) and Selenazole (AVS-253) were run in parallel as positive controls. Typi-

cal results were a VR between 1.4 and 2.3, an ID₅₀ between 17.0 $\mu\text{g/ml}$ and 50.0 $\mu\text{g/ml}$, and a TI between 2.0 and 6.0 for Ribavirin, and a VR between 1.0 and 2.0, an ID₅₀ between 115.0 $\mu\text{g/ml}$ and 35.0 $\mu\text{g/ml}$, and a TI between 1.5 and 2.5 for Selenazole.

b. The ID₅₀ and MTC for AVS-2350 are expressed in units/ml.

APPENDIX A
TABLE 3
COMPOUNDS ACTIVE AGAINST PUNTA TORO VIRUS^a

<u>AVS#</u>	<u>Shipment</u>	<u>VR</u>	<u>VR</u> [*]	<u>ID</u> ₅₀	<u>MTC</u>	<u>TI</u>
2350	13	1.9	0.6	581 ^b	20000 ^b	34.4
2269	12	2.5	0.8	0.032	1.0	31.2
2290	11	3.0	1.0	4.1	100	24.2
2712	22	2.3	0.8	0.1	1.0	19.4
2590	19	2.3	0.8	21.6	320	14.8
2309	11	3.3	1.1	8.2	100	12.2
2612	19	1.6	0.5	9.8	100	10.2
2743	18	2.4	0.8	32	320	10
2573	19	>2.4	>0.8	33.5	>320	>9.5
2275	12	2.1	0.7	41.0	320	7.8
2363	15	1.8	0.6	4.2	32	7.6
2588	19	>2.9	>1.0	42.8	>320	>7.5
2572	19	1.4	0.5	54.2	320	5.9
2714	22	1.3	0.4	0.6	3.2	5.5
1212	27	1.3	0.4	63.4	320.0	5.1
2980	25	1.4	0.5	0.68	3.2	4.7
2580	19	1.6	0.5	2.2	10	4.5
2318	13	4.4	1.5	0.7	3.2	4.4
2122	7	>2.2	>0.7	79.9	>320	>4.0
2291	11	1.7	0.6	8.1	32	3.9
2716	22	2.0	0.7	2.7	10.0	3.7
2585	19	1.3	0.4	94.2	320	3.4
2582	19	1.3	0.4	29.7	100	3.4
2224	10	1.5	0.5	30.7	100	3.3
2327	13	2.0	0.7	100.9	320	3.2
2090	6	1.0	0.3	32.0	100	3.1
2121	7	1.4	0.5	32.1	100	3.1
2384	16	1.1	0.4	104.3	320	3.1
2089	6	1.3	0.4	3.3	10	3.0
2247	12	1.9	0.7	11.4	32	2.8
2475	19	1.0	0.3	4.0	10	2.5
2303	11	1.6	0.5	133.0	320	2.4
2530	20	2.0	0.7	4.2	10	2.4
2563	21	1.2	0.4	0.4	1.0	2.3
2503	21	2.2	0.7	1.5	3.2	2.2
2128	7	1.0	0.3	4.7	10	2.1
2631	19	1.8	0.6	48.2	100	2.1
2320	13	1.8	0.6	17.7	32	1.8
2230	10	>1.7	>0.6	177.8	>320	>1.8
2274	12	1.5	0.5	55.9	100	1.8
2174	8	1.6	0.5	57.1	100	1.8
2252	12	1.7	0.6	66.0	100	1.5
2133	7	1.2	0.4	67.5	100	1.5
1215	27	1.0	0.3	69.2	100.0	1.4
0215	1	2.3	0.8	0.7	1.0	1.4
2571	19	1.8	0.6	24.8	32	1.3
2577	19	1.3	0.4	7.9	10	1.3
2127	7	2.3	0.8	79.8	100	1.3

2589	19	1.2	0.4	80.4	100	1.2
2234	10	1.1	0.4	2.6	3.2	1.2
2587	19	1.3	0.4	28.6	32	1.1
2289	11	1.7	0.6	28.6	32	1.1
2296	11	1.0	0.3	91.3	100	1.1
2419	17	1.1	0.4	293.4	320	1.1
2581	19	1.1	0.4	29.7	32	1.1
2619	19	1.1	0.4	92.9	100	1.1
2277	11	1.0	0.3	29.8	32	1.1
2979	25	1.4	0.5	97.8	100.0	1.0
2840	24	1.0	0.3	0.1	0.1	1.0

a. Compounds identified by their AVS number are listed in descending order from the most active to the least active. CPE-inhibition assays were done in Vero cells. An active compound is defined here as having a therapeutic index (TI) of greater than 1.0 and a virus rating (VR) of 1.0 or greater. The VR is a measurement of selective antiviral activity which takes into account the degree of inhibition of virus-induced CPE and the degree of cytotoxicity produced by the test compound, determined by a modification of the method of Ehrlich et al. (1965). VR is the designation for the virus rating calculated by the method of Sidwell and Huffman (1971). The drug concentration which reduced the CPE by 50% (50% inhibitory dose, ID₅₀) was calculated using a regression analysis program for semilog curve fitting and is expressed as $\mu\text{g/ml}$. The minimum cytotoxic drug concentration (MTC) is also expressed as $\mu\text{g/ml}$. The therapeutic index of a test compound was determined by dividing the MTC by the ID₅₀. Ribavirin (AVS-001) and Selenazole (AVS-253) were run in parallel as positive control compounds. Typical results have been for Ribavirin a VR between 1.2 and 3.0, an ID₅₀ between 10 $\mu\text{g/ml}$ and 45 $\mu\text{g/ml}$, and a TI between 2.0 and 8.0, and for Selenazole a VR between 1.0 and 2.5, an ID₅₀ between 2.0 $\mu\text{g/ml}$ and 9.0 $\mu\text{g/ml}$, and a TI between 1.0 and 3.0.

b. The ID₅₀ and MTC for AVS-2350 are expressed in units/ml.

APPENDIX A
TABLE 4
COMPOUNDS ACTIVE AGAINST SANDFLY FEVER VIRUS^a

<u>AVS#</u>	<u>Shipment</u>	<u>VR</u>	<u>VR</u> [*]	<u>ID</u> ₅₀	<u>MTC</u>	<u>TI</u>
2350	13	2.7	0.9	140 ^b	20000 ^b	143.4
2325	13	2.4	0.8	1.0	100	100
2320	13	3.5	1.2	2.1	100	48.5
2907	26	2.8	0.9	16.4	320.0	19.5
2317	13	1.1	0.4	18.7	320	17.1
2579	19	2.0	0.7	26.7	320.0	12.0
1210	27	2.9	1.0	27.9	320.0	11.5
2318	13	4.6	1.5	0.3	3.2	10
95	2	1.1	.4	12.9	100	7.7
2322	13	>4.0	>1.3	42.1	>320	>7.6
2275	12	2.1	0.7	13.5	100	7.4
2743	18	1.9	0.7	47.2	320	6.8
2274	12	2.0	0.7	15.9	100	6.3
1213	27	2.0	0.7	53.7	320.0	6.0
2122	7	>2.8	>0.9	18.2	>100	>5.5
0346	2	2.7, 1.6	0.9, 0.5	0.1, 0.2	0.32, 1.0	4.9, 4.2
2612	19	1.6	0.5	71.8	320	4.5
2518	20	1.1	0.4	2.4	10.0	4.2
2928	26	2.4	0.8	7.8	32.0	4.1
2906	26	2.1	0.7	24.8	100.0	4.0
2449	18	1.7	0.6	24.9	100	4
2570	19	1.0	0.3	8.0	32.0	4.0
2450	18	1.3	0.4	28.5	100	3.5
2290	11	1.3	0.4	29.2	100	3.4
2453	18	1.1	0.4	9.4	32	3.4
148	2	4.1, 3.9	1.4, 1.3	0.2, 0.3	3.2, 1	2.9, 3.3
2565	21	2.1	0.7	30.1	100.0	3.3
2285	11	1.9	0.6	96.7	320	3.3
2543	21	1.5	0.5	10.3	32.0	3.1
2951	26	2.1	0.7	10.4	32.0	3.1
2316	13	1.5	0.5	111.2	320	2.9
2517	20	1.0	0.4	3.5	10.0	2.8
2601	19	1.1	0.4	118.0	320.0	2.7
2980	25	1.7	0.6	1.2	3.2	2.7
3014	27	1.3	0.5	120.0	320.0	2.7
2503	21	4.1	1.4	0.4	1.0	2.7
1211	27	1.3	0.4	13.3	32.0	2.4
1212	27	1.9	0.7	14.2	32.0	2.3
2235	10	1.0	0.3	42.9	100	2.3
1159	27	1.5	0.5	14.5	32.0	2.2
2531	20	1.3	0.4	4.9	10.0	2.1
2714	22	1.6	0.5	0.5	1.0	2.0
2093	6	>1.6	>0.5	55.9	>100	>1.8
2277	11	1.4	0.5	20.3	32	1.6
2739	22	1.1	0.4	64.4	100.0	1.6
2238	12	2.0	0.6	212.1	320	1.5
1215	27	1.4	0.5	65.9	100.0	1.5

2242	12	1.8	0.6	222.3	320	1.4
1569	17	1.4	0.5	22.7	32	1.4
2363	15	1.1	0.4	7.7	10	1.3
2520	20	1.0	0.4	2.6	3.2	1.2
1915	27	1.0	0.4	26.2	32.0	1.2
2506	21	3.1	1.0	2.9	3.2	1.1
2479	19	1.1	0.4	29.8	32	1.1
2055	20	1.0	0.3	94.5	100.0	1.1
2566	21	1.3	0.4	32.0	32.0	1.0
2960	27	1.5	0.5	10.1	10.0	1.0
2597	19	1.3	0.4	103.0	100.0	1.0

a. Compounds identified by their AVS number are listed in descending order from the most active to the least active. CPE-inhibition assays were done in Vero cells. An active compound is defined here as having a therapeutic index (TI) of greater than 1.0 and a virus rating (VR) of 1.0 or greater. The VR is a measurement of selective antiviral activity which takes into account the degree of inhibition of virus-induced CPE and the degree of cytotoxicity produced by the test compound, determined by a modification of the method of Ehrlich et al. (1965). VR is the designation for the virus rating calculated by the method of Sidwell and Huffman (1971). The drug concentration which reduced the CPE by 50% (50% inhibitory dose, ID₅₀) was calculated using a regression analysis program for semilog curve fitting and is expressed as $\mu\text{g/ml}$. The minimum cytotoxic drug concentration (MTC) is also expressed as $\mu\text{g/ml}$. The therapeutic index of a test compound was determined by dividing the MTC by the ID₅₀. Ribavirin (AVS-001) and Selenazole (AVS-253) were run in parallel as positive control compounds. Typical results have been for Ribavirin a VR between 2.0 and 3.5, an ID₅₀ between 5.0 $\mu\text{g/ml}$ and 17.0 $\mu\text{g/ml}$, and a TI between 5.0 and 15.0, and for Selenazole a VR between 1.5 and 2.5, an ID₅₀ between 3.0 $\mu\text{g/ml}$ and 10.0 $\mu\text{g/ml}$, and a TI between 1.0 and 3.0.

b. The ID₅₀ and MTC for AVS-2350 are expressed in units/ml.

APPENDIX A
TABLE 5
COMPOUNDS ACTIVE AGAINST PICHINDE VIRUS^a

<u>AVS #</u>	<u>Shipment</u>	<u>ID₅₀</u>	<u>MTC</u>	<u>TI</u>
646	2	0.1,0.4	100,>10	>680.7,>26.9
148	2	0.2,0.7	100,>100	588.7,>150.9
140	4	0.5	>100	>208.2
1	4	2.5,3.7	>100,32	>40.1,8.7
95	2	9.1	>100	>10.9
1985	2	4.7	32	6.9
332	4,5	17.5	>100	>5.7
360	2	0.2	1	5.5
206	4,5	87.2	>320	>3.7
1992	3	94.9	320	3.4
68	1	112.3	>320	>2.8
1975	1	120.6	>320	>2.7
94	1	43.6	100	2.3
347	2	0.4	1	2.2
113	1	45.1	100	2.2
349	2	1.6	3.2	1.95
136	4	198.5	>320	>1.6
1996	3	66.0	100	1.5
1976	1	67.0	>100	>1.5
1991	3	2.7	3.2	1.2
202	4	297.9	>320	>1.1
1089	5	0.9	1.0	1.1

a. Compounds identified by their AVS numbers are listed in descending order from the most active to the least active. Assays were done in Vero cells. An active compound is defined here as having a therapeutic index (TI) of greater than 1.0. The drug concentration which reduced the mean plaque number by 50% (50% inhibitory dose, ID₅₀) was calculated using a regression analysis program for semilog curve fitting and is expressed as $\mu\text{g/ml}$. The minimum cytotoxic drug concentration (MTC) is the lowest drug concentration at which toxicity was observed. This is also expressed as $\mu\text{g/ml}$. The therapeutic index of a testcompound was determined by dividing the MTC by the ID₅₀. Ribavirin (AVS-001) and Selenazole (AVS-0253) were run in parallel as positive control compounds. Typical results have been for Ribavirin an ID₅₀ between 4.0 $\mu\text{g/ml}$ and 8.0 $\mu\text{g/ml}$, and a TI between 10.0 and 20.0, and for Selenazole an ID₅₀ between 1.0 $\mu\text{g/ml}$ and 2.5 $\mu\text{g/ml}$, and a TI between 16.0 and 52.0.

APPENDIX A
TABLE 6
COMPOUNDS ACTIVE AGAINST VENEZUELAN
EQUINE ENCEPHALOMYELITIS VIRUS^a

<u>AVS#</u>	<u>Shipment</u>	<u>VR</u>	<u>VR*</u>	<u>ID₅₀</u>	<u>MTC</u>	<u>TI</u>
2350	13	2.9	1.0	2.8 ^b	200 ^b	71.2
1089	5	3.4	1.1	2.8	100	35.1
257	5	3.7	1.2	3.2	32	10.0
1	4	2.5,2.0	0.8,0.7	11.3,7.3	100,10	8.9,1.4
2631	19	1.8	0.6	56.7	320	5.6
1160	5	3.4	1.1	5.8	32	5.5
2597	19	1.3	0.4	73.4	320	4.4
2576	19	1.5	0.5	78.2	320	4.1
2527	20	1.4	0.5	96.9	320	3.3
2575	19	>1.6	>0.5	113.1	>320	>2.8
2487	19	1.7	0.3	123.9	320	2.6
206	4,5	1.0	0.3	135.9	320	2.4
2621	19	1.0	0.3	151.1	320	2.1
646	2	3.2	1.1	0.05	0.1	2.0
349	2	1.2	0.4	5.3	10	1.9
2580	19	2.0	0.7	1.8	3.2	1.8
2613	19	1.0	0.3	59.1	100	1.7
703	5	1.4	0.5	20.9	32	1.5
1991	3	1.0	0.3	0.7	1	1.4

a. Compounds identified by their AVS number are listed in descending order from the most active to the least active. CPE-inhibition assays were done in Vero cells. An active compound is defined here as having a therapeutic index (TI) of greater than 1.0 and a virus rating (VR) of 1.0 or greater. The VR is a measurement of selective antiviral activity which takes into account the degree of inhibition of virus-induced CPE and the degree of cytotoxicity produced by the test compound, determined by a modification of the method of Ehrlich et al. (1965). VR is the designation for the virus rating calculated by the method of Sidwell and Huffman (1971). The drug concentration which reduced the CPE by 50% (50% inhibitory dose, ID₅₀) was calculated using a regression analysis program for semilog curve fitting and is expressed as $\mu\text{g/ml}$. The minimum cytotoxic drug concentration (MTC) is also expressed as $\mu\text{g/ml}$. The therapeutic index of a test compound was determined by dividing the MTC by the ID₅₀. Ribavirin (AVS-001) was run in parallel as a positive control compound. Typical results have been a VR between 1.5 and 2.5, an ID₅₀ between 4 $\mu\text{g/ml}$ and 20 $\mu\text{g/ml}$, and a TI between 2 and 4.

b. The ID₅₀ and MTC for AVS-2350 are expressed in units/ml.

APPENDIX A
TABLE 7
COMPOUNDS ACTIVE AGAINST YELLOW FEVER VIRUS^a

<u>AVS#</u>	<u>Shipment</u>	<u>VR</u>	<u>VR</u> [*]	<u>ID</u> ₅₀	<u>MTC</u>	<u>TI</u>
2350	13	3.5	1.2	84.4 ^b	20000 ^b	237.1
2630	19	3.8	1.3	6.4	320	49.8
1983	2	3.2	1.1	7.4	320	42.9
2305	11	2.5	0.8	2.7	100	36.7
1985	2	3.8	1.3	1.2	32	26.3
2275	12	3.2	1.1	13.1	320	24.4
1976	1	2.9	0.9	18.0	320	17.7
253	5	3.8, 2.0	1.3, 0.7	0.7, 3.0	10, 3.2	13.7, 1.1
1975	1	2.3	0.8	24.2	320	13.2
646	2	3.1	1.0	0.2	3.2	13.0
703	5	3.0	1.0	2.5	32	13.0
2906	26	2.3	0.8	24.7	320.0	13.0
1978	1	1.9	0.6	31.5	320	10.2
303	1	2.6	0.8	10.0	100	10.0
2563	21	2.3	0.8	0.3	3.2	10.0
1974	1	1.7	0.6	10.3	100	9.7
1972	1	1.7	0.6	3.7	32	8.7
94	1	2.0	0.7	37.8	320	8.4
138	1	>3.7	>1.2	38.9	>320	>8.2
79	1	2.1	0.7	15.3	100	6.5
2631	19	2.8	0.9	16.5	100	6.0
1973	1	1.6	0.5	19.2	100	5.2
2980	25	2.3	0.8	0.6	3.2	5.1
360	2	1.6	0.5	0.1	0.3	4.6
2586	19	1.6	0.5	71.8	320	4.4
257	5	1.3	0.4	74.1	320	4.3
2576	19	2.9	1.0	2.5	10	3.9
2309	11	1.0	0.3	81.9	320	3.9
84	1	1.2	0.4	25.6	100	3.9
113	1	1.2	0.4	27.1	100	3.7
148	2	3.3	1.1	0.9	3.2	3.6
230	1	2.0	0.7	28.0	100	3.6
2004	3	2.0	0.7	97.0	320	3.3
206	4	1.4	0.5	115.1	320	2.8
139	1	2.2	0.7	0.1	0.3	2.5
349	2	1.0	0.3	4.1	10	2.4
2423	17	1.0	0.3	135.9	320	2.3
345	5	2.9	1.0	44.6	100	2.2
2617	19	1.3	0.4	144.2	320	2.2
2224	10	1.6	0.5	15.7	32	2.0
2008	3	1.7	0.6	15.9	32	2.0
2503	21	3.6	1.2	0.6	1.0	1.8
2203	9	1.8	0.6	18.7	32	1.7
136	4	1.2	0.4	66.8	100	1.5
1159	27	1.0	0.3	21.7	32.0	1.5
1160	5	1.3	0.4	25.0	32	1.3
2716	22	1.1	0.4	7.7	10.0	1.3

1213	27	1.0	0.4	77.8	100.0	1.3
215	1	2.3	0.8	2.6	3.2	1.2
2592	19	2.3	0.8	29.2	32	1.1
2591	19	1.9	0.6	29.8	32	1.1
2585	19	1.7	0.6	30.0	32	1.1
2573	19	1.1	0.4	93.9	100	1.1
2583	19	1.7	0.6	30.3	32	1.1
2506	21	2.1	0.7	10.1	10.0	1.0

a. Compounds identified by their AVS number are listed in descending order from the most active to the least active. CPE-inhibition assays were done in Vero cells. An active compound is defined here as having a therapeutic index (TI) of greater than 1.0 and a virus rating (VR) of 1.0 or greater. The VR is a measurement of selective antiviral activity which takes into account the degree of inhibition of virus-induced CPE and the degree of cytotoxicity produced by the test compound, determined by a modification of the method of Ehrlich et al. (1965). VR is the designation for the virus rating calculated by the method of Sidwell and Huffman (1971). The drug concentration which reduced the CPE by 50% (50% inhibitory dose, ID₅₀) was calculated using a regression analysis program for semilog curve fitting and is expressed as $\mu\text{g/ml}$. The minimum cytotoxic drug concentration (MTC) is also expressed as $\mu\text{g/ml}$. The therapeutic index of a test compound was determined by dividing the MTC by the ID₅₀. Selenazole (AVS-253) was run in parallel as a positive control compound. Typical results have been a VR between 1.4 and 3.8, an ID₅₀ between 0.2 $\mu\text{g/ml}$ and 5.9 $\mu\text{g/ml}$, and a TI between 1.0 and 6.0.

b. The ID₅₀ and MTC for AVS-2350 are expressed in units/ml.

APPENDIX A
TABLE 8
COMPOUNDS ACTIVE AGAINST JAPANESE ENCEPHALITIS VIRUS^a

<u>AVS#</u>	<u>Shipment</u>	<u>VR</u>	<u>VR</u> [*]	<u>ID</u> ₅₀	<u>MTC</u>	<u>TI</u>
2350	13	6.6	2.2	0.4 ^b	20000 ^b	56182
2980	25	2.3	0.8	0.6	10.0	16.0
2318	13	3.3	1.1	0.7	10	13.6
136	4	2.1	0.7	30.6	320	10.4
2625	19	1.0	0.3	31.6	320	10.1
1985	2	2.6	0.9	3.9	32	8.1
0712	30	2.0	0.7	12.7	100.0	7.8
1089	5	4.2	1.4	0.4	3.2	7.1
2711	22	2.2	0.7	50.4	320.0	6.3
215	1	3.4	1.1	0.6	3.2	5.5
94	1	>1.8	>0.6	19.3	>100	>5.2
2503	21	3.6	1.2	0.2	1.0	5.1
2979	25	1.5	0.5	6.3	32.0	5.1
2563	21	1.0	0.3	0.6	3.2	5.0
230	1	2.1	0.7	6.5	32	4.9
2652	21	1.4	0.5	68.7	320.0	4.7
646	2	2.9	1.0	0.01	0.03	4.6
257	5	1.9	0.6	23.8	100	4.2
84	1	2.2	0.7	7.7	32	4.1
347	2	1.1	0.4	2.6	10	3.9
0361	2	1.5	0.5	0.0	0.1	3.8
2678	21	1.3	0.4	84.6	320.0	3.8
2219	10	1.8	0.6	8.5	32	3.7
2680	21	1.7	0.6	29.0	100.0	3.5
2433	17	1.5	0.5	93.2	320	3.4
360	2	1.2	0.4	0.01	0.03	3.4
2591	19	>2.0	>0.7	97.0	>320	>3.3
2585	19	>1.6	>0.5	99.0	>320	>3.2
2691	22	1.6	0.5	10.0	32.0	3.2
2590	19	1.2	0.4	100	320	3.2
2672	21	1.0	0.3	100.0	320.0	3.2
2716	22	1.6	0.5	3.2	10.0	3.2
3038	28	2.2	0.8	0.1	0.32	3.1
2631	19	>2.3	>0.8	104.1	>320	>3.1
199	2	1.3	0.4	102.2	320	3.1
2700	22	3.0	1.0	3.4	10.0	2.9
206	4	>1.7	>0.6	108.2	>320	>2.9
2656	21	1.1	0.4	118.0	320.0	2.7
2008	3	2.2	0.7	3.8	10	2.6
202	4	1.1	0.4	122.0	320	2.6
272	1	2.5	0.8	1.3	3.2	2.5
2506	21	2.0	0.7	12.9	32.0	2.5
1019	28	2.5	0.8	1.3	3.2	2.4
0070	1	2.7	0.9	1.4	3.2	2.3
2741	21	1.2	0.4	145.0	320.0	2.2
0866	5	1.1	0.4	46.4	100.0	2.2

122	4	3.0	1.0	2.0	3.2	1.6
1976	1	>1.0	>0.3	70.9	>100	>1.4
148	2	2.9	1.0	0.7	1.0	1.4
52	4	1.0	0.3	77.4	100	1.3
2224	10	1.7	0.5	8.8	10	1.1
2861	20	1.6	0.5	94.1	100.0	1.1
2112	6	1.0	0.3	87.9	100	1.1

a. Compounds identified by their AVS number are listed in descending order from the most active to the least active. CPE-inhibition assays were done in Vero cells. An active compound is defined here as having a therapeutic index (TI) of greater than 1.0 and a virus rating (VR) of 1.0 or greater. The VR is a measurement of selective antiviral activity which takes into account the degree of inhibition of virus-induced CPE and the degree of cytotoxicity produced by the test compound, determined by a modification of the method of Ehrlich et al. (1965). VR is the designation for the virus rating calculated by the method of Sidwell and Huffman (1971). The drug concentration which reduced the CPE by 50% (50% inhibitory dose, ID₅₀) was calculated using a regression analysis program for semilog curve fitting and is expressed as $\mu\text{g/ml}$. The minimum cytotoxic drug concentration (MTC) is also expressed as $\mu\text{g/ml}$. The therapeutic index of a test compound was determined by dividing the MTC by the ID₅₀. Ribavirin (AVS-001) and Selenazole (AVS-253) were run in parallel as positive control compounds. Typical results have been for Ribavirin a VR between 1.0 and 2.5, an ID₅₀ between 20.0 $\mu\text{g/ml}$ and 50.0 $\mu\text{g/ml}$, and a TI between 2.0 and 5.0, and for Selenazole a VR between 2.0 and 3.0, an ID₅₀ between 0.8 $\mu\text{g/ml}$ and 3.0 $\mu\text{g/ml}$, and a TI between 2.0 and 6.0.

b. The ID₅₀ and MTC for AVS-2350 are expressed in units/ml.

APPENDIX A
TABLE 9
COMPOUNDS ACTIVE AGAINST HUMAN IMMUNODEFICIENCY VIRUS^a

AVS #	Shipment	VR	VR*	ID ₅₀	MTC	TI
2576	19	5.2	1.7	1.0	100	100
2572	19	4.8	1.6	1.0	100	100
2575	19	4.5	1.5	1.5	>100	>69
2285	11	4.4	1.5	0.4	>100	>254
2276	11	4.3	1.4	0.2	100	499
2353	11	4.2	1.4	<0.1	>100	>1000
1603	-	4.2	1.4	<0.1	10	>100
2574	19	3.6	1.2	1.6	100	64
999	9	3.5	1.2	<0.1	100	>1000
2567	21	3.4	1.1	1.8	>100	>54
2146	21	3.4	1.1	2.1	>100	>48
2581	19	3.4	1.1	3.2	100	31
2396	16	3.2	1.1	4.7	>100	>21
2591	19	3.2	1.1	2.6	100	38
1764	22	3.1	1.0	<0.1	32	>320
2145	21	3.1	1.0	6.9	>100	>15
2623	19	3.1	1.0	<0.1	32	>320
2394	16	2.8	0.9	1.0	32	32
2582	19	2.7	0.9	10	100	10
1790	21	2.6	0.9	0.5	100	184
2573	19	2.5	0.8	8.1	100	13
2488	19	2.4	0.8	3.2	32	10
2589	19	2.3	0.8	11.8	100	8.5
2502	19	2.2	0.7	14.4	>100	>6.9
2955	23	2.1	0.7	1.6	10	6.3
206	9	2.0	0.7	0.1	10	100
2642	21	2.0	0.7	-	>100	-
2393	16	1.9	0.6	0.6	32	57
2673	21	1.9	0.6	-	100	-
2749	22	1.9	0.6	1.8	32	18
2365	15	1.8	0.6	-	>100	-
2588	19	1.8	0.6	80.8	100	1.2
2332	13	1.7	0.6	-	>100	-
2407	16	1.7	0.6	0.9	10	10.9
2444	18	1.7	0.6	7.2	32	4.5
2565	21	1.7	0.6	1.8	10	5.6
2621	19	1.7	0.6	-	32	-
2325	13	1.6	0.5	-	100	-
2543	21	1.6	0.5	-	32	-
2643	21	1.6	0.5	-	1.0	-
2340	13	1.5	0.5	9.5	>100	>11
1	9	1.4	0.5	0.8	3.2	4.0
2278	11	1.4	0.5	1.8	100	56
2406	16	1.4	0.5	-	10	-
2422	17	1.4	0.5	29.6	100	3.4
2569	21	1.4	0.5	2.6	100	38
2600	19	1.4	0.5	5.6	32	5.8
2648	21	1.4	0.5	0.1	1.0	10

TABLE 9 (Cont'd.)

AVS #	Shipment	VR	VR*	ID ₅₀	MTC	TI
2760	22	1.3	0.5	5.7	32	5.6
2461	18	1.3	0.4	-	10	-
2708	22	1.3	0.4	0.1	1.0	10
1795	22	1.2	0.4	-	1.0	-
2274	12	1.2	0.4	0.3	3.2	10
2520	20	1.2	0.4	-	10	-
2666	21	1.2	0.4	-	10	-
646	9	1.1	0.4	2.8	1.0	0.4
2358	15	1.1	0.4	<0.1	1.0	>10
2397	16	1.1	0.4	16.7	32	1.9
2408	16	1.1	0.4	-	100	-
2460	18	1.1	0.4	36.7	>100	>2.7
2657	21	1.1	0.4	56.7	>100	>1.8
2665	21	1.1	0.4	-	3.2	-
2748	22	1.1	0.4	0.1	1.0	8.2
2752	22	1.1	0.4	-	100	-
2062	20	1.0	0.4	-	100	-
2448	18	1.0	0.4	-	100	-
2647	21	1.0	0.4	-	3.2	-
2049	20	1.0	0.3	-	100	-
2275	12	1.0	0.3	-	10	-
2404	16	1.0	0.3	-	10	-
2445	18	1.0	0.3	-	32	-
2585	19	1.0	0.3	10	10	1.0
2622	19	1.0	0.3	<0.1	1.0	>10
2629	19	1.0	0.3	22.9	100	4.4
2753	22	1.0	0.3	-	10	-

- a. Compounds identified by their AVS number are listed in descending order from the most active to the least active based on virus ratings. Assays were done in ATH8 cells. An active compound is defined here as having a virus rating (VR) of 1.0 or greater. The VR is a measurement of selective antiviral activity which takes into account the degree of inhibition of virus-induced CPE and the degree of cytotoxicity produced by the test compound, determined by a modification of the method of Ehrlich *et al.* (1965). VR* is the designation for the virus rating calculated by the method of Sidwell and Huffman (1971). The drug concentration which reduced the CPE by 50% (50% inhibitory dose, ID₅₀) was calculated using a regression analysis program for semilog curve fitting and is expressed as $\mu\text{g/ml}$. The minimum cytotoxic drug concentration (MTC) is also expressed as $\mu\text{g/ml}$. The therapeutic index of a test compound was determined by dividing the MTC by the ID₅₀.

Dideoxycytidine (ddC, AVS-2639) was assayed in parallel as a positive control drug. Representative data for this compound are virus rating of 4-5, ID₅₀ of <0.1 $\mu\text{g/ml}$, MTC of 10-32 $\mu\text{g/ml}$ and a therapeutic index of 10-320.

Appendix B

**Cumulative Summary of *In Vitro* Antiviral Test Results
(Classic Viruses)**

SUMMARY OF ANTIVIRAL TEST RESULTS -- CONTRACT DAMD17-86-C-6013

(SOUTHERN RESEARCH INSTITUTE)

Shipment No. 1

AVS No.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
15	PT	>4.3	>1.4	18.2	Vero	>320.0	17.6	09/19/86
	**PT	N/A	N/A	37.9	Vero	100.0	2.6	05/12/87
64	PT	2.0	0.7	68.0	Vero	320.0	4.7	09/19/86
	VEE	0	0	--	Vero	>100.0	--	04/13/87
	YFV	>0.24	>0.08	--	Vero	>320.0	--	01/13/87
	PIC	N/A	N/A	--	Vero	10.0	--	12/05/86
	JE	0	0	--	Vero	>320.0	--	03/27/87
	SF	>1.4	>0.5	--	Vero	>320.0	--	10/08/86
	SF	2.7	0.9	--	Vero	320.0	--	10/21/86
	SF	0	0	--	Vero	>100.0	--	11/24/86
	VV	0	0	--	L-929	>320.0	--	06/12/86
	VV	0	0	--	Vero	>320.0	--	07/17/86
	Ad	>0.3	>0.1	--	HEp-2	>320.0	--	09/11/86
	VSV	0	0	--	L-929	>320.0	--	06/13/86
68	PT	2.4	0.8	2.4	Vero	32.0	13.3	09/19/86
	PT	>0.3	>0.1	--	Vero	>10.0	--	11/18/86
	PT	0	0	--	Vero	>10.0	--	08/21/87
	PT	>0.1	>0.03	--	Vero	>10.0	--	09/21/87
	VEE	0.15	0.05	30.65	Vero	32.0	1.04	04/13/87
	YFV	0.07	0.02	--	Vero	10.0	--	01/13/87
	PIC	N/A	N/A	112.3	Vero	>320.0	>2.8	01/05/87
	JE	0.75	0.25	72.1	Vero	100.0	1.4	03/09/87
	SF	2.7	0.9	--	Vero	320.0	--	10/21/86
	VV	0.6	0.2	82.1	L-929	100.0	1.2	06/12/86
	VV	0	0	--	Vero	320.0	--	07/17/86
	Ad	0	0	--	HEp-2	100.0	--	09/11/86
	VSV	0	0	--	L-929	320.0	--	06/13/86
	70	PT	0.85	0.28	34.33	Vero	3.2	0.09	11/12/87
JE		2.74	0.91	1.4	Vero	3.2	2.26	07/09/87
VV		>0.6	>0.2	<0.32	L-929	<0.32	1.0	06/12/86
VV		0.3	0.1	--	Vero	100.0	--	07/17/86
Ad		21.3	20.4	<0.32	HEp-2	<0.32	1.0	09/11/86
Ad		2.4	0.8	0.06	HEp-2	0.32	5.3	09/25/86
VSV		0	0	--	L-929	1.0	--	06/13/86
79	PT	>1.7	>0.6	--	Vero	>100.0	--	09/19/86
	PT	1.1	0.4	23.9	Vero	10.0	0.4	11/18/86
	VEE	0.6	0.2	100.0	Vero	3.2	0.032	04/13/87
	YFV	2.06	0.7	15.3	Vero	100.0	6.5	01/13/87
	PIC	N/A	N/A	--	Vero	0.1	--	01/05/87
	JE	0.65	0.22	23.87	Vero	3.2	0.13	03/09/87
	SF	>5.5	>1.8	0.65	Vero	>100.0	>154.0	10/08/86
	SF	1.05	0.35	72.21	Vero	10.0	0.14	07/27/87
	VV	1.4	0.5	1.7	L-929	3.2	1.9	06/12/86
	VV	1.7	0.6	32.0	Vero	100.0	3.1	07/17/86
	Ad	1.3	0.4	2.3	HEp-2	10.0	4.4	09/11/86
	VSV	0.8	0.3	9.8	L-929	10.0	1.0	06/13/86

84	PT	1.9	0.6	66.4	Vero	320.0	4.8	09/19/86
	**PT	N/A	N/A	130.0	Vero	320.0	2.5	05/12/87
	VEE	0.3	0.1	320.0	Vero	320.0	1.0	04/13/87
	YFV	1.2	0.4	25.6	Vero	100.0	3.9	01/13/87
	PIC	N/A	N/A	--	Vero	100.0	--	01/05/87
	JE	2.2	0.7	7.8	Vero	32.0	4.1	03/09/87
	SF	4.4	1.5	1.3	Vero	320.0	246.0	10/08/86
	SF	0.22	0.07	80.96	Vero	100.0	1.2	11/24/86
	SF	1.15	0.38	17.16	Vero	1.0	0.06	07/27/87
	VV	0.2	0.07	--	L-929	32.0	--	06/12/86
	VV	0.6	0.2	298.0	Vero	320.0	1.1	07/17/86
	Ad	0	0	--	HEp-2	32.0	--	09/11/86
	VSV	0.4	0.1	--	L-929	100.0	--	06/13/86
	94	PT	>3.0	>1.0	10.0	Vero	>320.0	32.0	09/19/86
PT		0.7	0.2	--	Vero	100.0	--	11/18/86
PT		0.15	0.05	--	Vero	100.0	--	08/21/87
PT		0	0	--	Vero	320.0	--	09/18/87
VEE		0.9	0.3	32.0	Vero	10.0	0.31	04/13/87
YFV		2.03	0.7	37.9	Vero	320.0	8.5	01/13/87
PIC		N/A	N/A	43.6	Vero	100.0	2.3	01/06/87
JE		>1.8	>0.6	13.3	Vero	>100.0	5.2	03/09/87
SF		>4.7	>1.6	1.3	Vero	>320.0	>246.0	10/08/86
SF		0.4	0.13	--	Vero	32.0	--	08/18/87
VV		>1.3	>0.4	--	L-929	>320.0	--	06/12/86
VV		0	0	--	Vero	>320.0	--	07/17/86
Ad		1.0	0.3	231.1	HEp-2	320.0	1.4	09/11/86
VSV		0	0	--	L-929	>320.0	--	06/13/86
113	PT	2.0	0.7	3.2	Vero	32.0	10.0	09/19/86
	PT	0	0	--	Vero	<100.0	--	08/21/87
	PT	0.2	0.07	--	Vero	<100.0	--	09/21/87
	YFV	1.2	0.4	27.1	Vero	100.0	3.7	01/14/87
	PIC	N/A	N/A	45.1	Vero	100.0	2.2	01/06/87
	JE	0	0	--	Vero	100.0	--	03/09/87
	SF	2.2	0.7	39.8	Vero	10.0	0.3	10/21/86
	SF	0	0	--	Vero	32.0	--	11/26/86
	VV	>0.7	>0.2	97.4	L-929	>320.0	3.3	06/12/86
	VV	0	0	--	Vero	100.0	--	07/17/86
	Ad	0.2	0.07	--	HEp-2	100.0	--	09/11/86
VSV	0	0	--	L-929	320.0	--	06/13/86	
138	PT	>1.1	>0.4	--	Vero	>320.0	--	09/19/86
	PT	0	0	--	Vero	320.0	--	11/18/86
	YFV	>3.65	>1.2	38.9	Vero	>320.0	8.2	01/14/87
	PIC	N/A	N/A	--	Vero	>320.0	--	12/12/86
	JE	0	0	--	Vero	32.0	--	03/09/87
	SF	0.2	0.07	--	Vero	32.0	--	10/15/86
	VV	3.1	1.0	8.8	L-929	100.0	11.4	06/12/86
	VV	>3.8	>1.3	19.9	Vero	>320.0	16.1	07/17/86
	Ad	1.1	0.4	95.8	HEp-2	100.0	1.0	09/11/86
	VSV	0	0	--	L-929	32.0	--	06/13/86
139	PT	1.8	0.6	0.7	Vero	0.3	0.4	09/19/86
	PT	0	0	--	Vero	0.32	--	10/28/86
	YFV	2.15	0.7	0.1	Vero	0.32	2.5	01/14/87
	PIC	N/A	N/A	15.4	Vero	>320.0	>20.8	12/12/86
	PIC	N/A	N/A	3.1	Vero	>32.0	>10.3	01/06/87
	JE	0.6	0.2	0.097	Vero	0.1	1.03	04/01/87
	SF	1.9	0.6	<0.001	Vero	1.0	>1000	10/08/86

	SF	1.3	0.43	0.97	Vero	0.32	0.3	11/24/86
	SF	0.25	0.08	--	Vero	0.32	--	08/18/87
	VV	1.3	0.4	1.8	L-929	3.2	1.8	06/12/86
	VV	2.7	0.9	1.9	Vero	1.0	0.5	07/17/86
	Ad	0	0	--	HEP-2	0.3	--	09/11/86
	VSV	1.6	0.5	31.5	L-929	3.2	0.1	06/13/86
215	PT	2.4	0.8	0.701	Vero	1.0	1.4	09/24/87
	PT	2.7	0.9	2.2	Vero	3.2	1.5	10/03/86
	YFV	2.31	0.8	2.6	Vero	3.2	1.2	01/14/87
	PIC	N/A	N/A	2.2	Vero	>100.0	>45.4	12/12/86
	JE	3.4	1.1	0.6	Vero	3.2	5.5	03/09/87
	JE	1.05	0.35	26.2	Vero	10.0	0.4	08/31/87
	SF	2.1	0.7	1.7	Vero	1.0	0.6	10/10/86
	VV	3.0	1.0	2.8	L-929	10.0	3.6	06/12/86
	VV	>4.2	>1.4	0.7	Vero	3.2	4.6	07/17/86
	Ad	2.3	0.8	9.5	HEP-2	10.0	1.1	09/11/86
	VSV	2.1	0.7	10.0	L-929	3.2	0.3	06/13/86
228	PT	0	0	--	Vero	32.0	--	10/03/86
	YFV	0.9	0.3	67.5	Vero	32.0	0.5	01/14/87
	PIC	N/A	N/A	28.4	Vero	32.0	1.1	12/12/86
	JE	0.15	0.05	--	Vero	100.0	--	03/09/87
	SF	0.4	0.1	32.0	Vero	32.0	1.0	10/10/86
	SF	0.3	0.1	--	Vero	32.0	--	11/24/86
	VV	0.3	0.1	--	L-929	100.0	--	06/12/86
	VV	0	0	--	Vero	32.0	--	07/17/86
	Ad	0.2	0.07	--	HEP-2	10.0	--	09/11/86
	VSV	0	0	--	L-929	32.0	--	06/13/86
230	PT	1.5	0.5	100.0	Vero	100.0	1.0	10/03/86
	YFV	2.03	0.7	27.97	Vero	100.0	3.6	01/15/87
	PIC	N/A	N/A	9.8	Vero	320.0	32.7	12/12/86
	JE	2.1	0.7	6.5	Vero	32.0	4.9	03/09/87
	SF	2.3	0.8	53.5	Vero	100.0	1.9	10/10/86
	SF	0.4	0.13	31.96	Vero	32.0	1.0	11/24/86
	VV	0.4	0.1	--	L-929	1.0	--	06/12/86
	VV	0.9	0.3	66.4	Vero	100.0	1.5	07/17/86
	Ad	>1.3	>0.4	66.4	HEP-2	>100.0	>1.5	09/11/86
	Ad	0.7	0.2	--	HEP-2	320.0	--	09/18/86
	VSV	1.9	0.6	9.2	L-929	3.2	0.4	06/13/86
253	PT	3.4	1.1	3.2	Vero	32.0	10.0	09/19/86
	PT	4.3	1.4	2.3	Vero	32.0	13.9	09/19/86
	PT	1.6	0.5	18.3	Vero	32.0	1.8	10/03/86
	VEE	2.8	0.93	0.31	Vero	0.32	1.05	04/28/87
	YFV	2.8	0.9	3.0	Vero	10.0	3.3	01/13/87
	PIC	N/A	N/A	2.0	Vero	32.0	16.0	12/05/86
	JE	3.8	1.3	0.24	Vero	3.2	13.5	03/09/87
	JE	3.19	1.06	2.04	Vero	10.0	4.9	03/11/87
	SF	>6.1	>2.0	1.0	Vero	>320.0	320.0	09/23/86
	SF	>4.4	>1.5	0.14	Vero	>100.0	>714.0	10/08/86
	SF	>6.0	>2.0	1.0	Vero	>100.0	>100.0	10/08/86
	VV	20.5	20.2	--	L-929	20.32	--	06/12/86
	VV	2.6	0.9	6.9	Vero	3.2	0.5	07/17/86
	Ad	1.6	0.5	8.1	HEP-2	32.0	4.0	09/11/86
	VSV	2.0	0.7	21.2	L-929	1.0	0.1	06/13/86
272	PT	2.3	0.8	1.0	Vero	3.2	3.2	10/03/86

	YFV	2.2	0.7	2.9	Vero	1.0	0.3	01/15/87
	PIC	N/A	N/A	2.0	Vero	32.0	16.0	12/12/86
	JE	2.45	0.82	1.3	Vero	3.2	2.5	03/11/87
	SF	2.2	0.7	1.0	Vero	3.2	3.2	10/10/86
	VV	23.4	21.1	0.5	L-929	3.2	6.4	06/12/86
	VV	4.7	1.6	0.7	Vero	3.2	4.6	07/17/86
	Ad	2.2	0.7	8.1	HEp-2	3.2	0.4	09/11/86
	VSV	2.1	0.7	7.5	L-929	3.2	0.4	06/17/86
302	PT	0.6	0.2	10.01	Vero	20.01	1.0	10/03/86
	PT	0	0	--	Vero	20.01	--	10/15/86
	YFV	0.2	0.07	--	Vero	20.1	--	03/06/87
	PIC	N/A	N/A	0.3	Vero	0.32	1.1	12/12/86
	JE	0.4	0.13	0.01	Vero	10.032	3.0	04/01/87
	SF	0.1	0.03	--	Vero	0.1	--	10/10/86
	SF	0.4	0.13	--	Vero	0.32	--	11/24/86
	VV	20.2	20.07	--	L-929	0.1	--	06/12/86
	VV	0.7	0.2	2.6	Vero	3.2	1.2	07/17/86
	Ad	0	0	--	HEp-2	0.32	--	09/11/86
	VSV	0.1	0.03	--	L-929	0.32	--	06/17/86
303	PT	0.8	0.3	--	Vero	320.0	--	10/09/86
	YFV	2.6	0.9	10.0	Vero	100.0	10.0	01/15/87
	YFV	1.1	0.4	100.0	Vero	0.32	0.0032	08/19/87
	PIC	N/A	N/A	--	Vero	>32.0	--	12/12/86
	PIC	N/A	N/A	--	Vero	>320.0	--	01/06/87
	JE	1.19	0.4	9.7	Vero	10.0	1.0	03/11/87
	SF	0.1	0.03	--	Vero	320.0	--	10/15/86
	SF	0	0	--	Vero	32.0	--	11/07/86
	VV	23.5	21.2	0.4	L-929	10.0	25.0	06/12/86
	VV	5.2	1.7	0.6	Vero	10.0	15.9	07/17/86
	Ad	>1.2	>0.4	--	HEp-2	>320.0	--	09/11/86
	VSV	2.8	0.9	3.1	L-929	10.0	3.2	06/17/86
	**VSV	N/A	N/A	6.04	L-929	10.0	1.66	02/03/87
1972	PT	1.5	0.5	6.2	Vero	10.0	1.6	10/09/86
	PT	>0.2	>0.1	--	Vero	>10.0	--	10/22/86
	YFV	1.8	0.6	3.7	Vero	32.0	8.7	01/15/87
	PIC	N/A	N/A	79.3	Vero	100.0	1.3	12/12/86
	JE	0	0	--	Vero	232.0	--	03/11/87
	VV	1.2	0.4	32.0	L-929	100.0	3.1	06/12/86
	VV	0	0	--	Vero	32.0	--	07/17/86
	Ad	>0.6	>0.2	>320.0	HEp-2	>320.0	--	09/11/86
	VSV	0	0	--	L-929	10.0	--	06/17/86
1973	PT	1.6	0.5	19.2	Vero	100.0	5.2	10/09/86
	YFV	1.6	0.5	19.3	Vero	100.0	5.2	01/16/87
	PIC	N/A	N/A	25.0	Vero	32.0	1.3	12/12/86
	JE	0	0	--	Vero	32.0	--	03/11/87
	VV	0.6	0.2	93.2	L-929	100.0	1.1	06/12/86
	VV	0	0	--	Vero	32.0	--	07/17/86
	Ad	0.3	0.1	--	HEp-2	100.0	--	09/11/86
	VSV	0	0	--	L-929	32.0	--	06/17/86
1974	PT	1.7	0.6	14.2	Vero	100.0	7.0	10/09/86
	YFV	1.8	0.6	10.3	Vero	100.0	9.7	01/16/87
	PIC	N/A	N/A	--	Vero	>0.1	--	01/06/87
	JE	0	0	--	Vero	32.0	--	03/11/87
	SF	0	0	--	Vero	32.0	--	11/25/86
	VV	0.8	0.3	72.5	L-929	100.0	1.4	06/12/86

	VV	0	0	--	Vero	32.0	--	07/17/86
	Ad	0	0	--	HEp-2	32.0	--	09/11/86
	VSV	0	0	--	L-929	32.0	--	06/17/86
1975	PT	2.7	0.9	10.5	Vero	320.0	30.5	10/09/86
	PT	0	0	--	Vero	32.0	--	08/21/87
	**PT	N/A	N/A	312.0	Vero	320.0	1.02	05/14/87
	YFV	2.3	0.8	24.2	Vero	320.0	13.2	01/16/87
	YFV	1.64	0.55	19.72	Vero	32.0	1.62	07/29/87
	PIC	N/A	N/A	120.56	Vero	>320.0	2.65	12/19/86
	JE	0.3	0.1	--	Vero	320.0	--	03/27/87
	SF	0.8	0.27	295.8	Vero	320.0	1.1	11/25/86
	VV	0	0	--	L-929	1320.0	--	06/12/86
	VV	0	0	--	Vero	320.0	--	07/17/86
	Ad	0.3	0.1	--	HEp-2	1100.0	--	09/11/86
	VSV	0	0	--	L-929	32.0	--	06/17/86
1976	PT	0.8	0.3	94.9	Vero	320.0	3.4	10/15/86
	YFV	2.9	0.95	18.1	Vero	320.0	17.7	01/16/87
	YFV	0.4	0.13	--	Vero	3.2	--	08/19/87
	PIC	N/A	N/A	67.0	Vero	>100.0	>1.5	01/06/87
	JE	>1.0	>0.33	70.9	Vero	>100.0	>1.4	03/11/87
	SF	>2.4	>0.8	18.2	Vero	>100.0	>5.5	10/27/86
	VV	0.5	0.2	29.0	L-929	32.0	1.1	06/12/86
	VV	0	0	--	Vero	100.0	--	07/17/86
	Ad	0.6	0.2	--	HEp-2	32.0	--	09/11/86
	VSV	0.6	0.2	93.2	L-929	100.0	1.1	06/17/86
1977	PT	0	0	--	Vero	320.0	--	10/15/86
	YFV	0	0	--	Vero	>320.0	--	01/16/87
	PIC	N/A	N/A	--	Vero	32.0	--	12/19/86
	JE	0	0	--	Vero	32.0	--	03/11/87
	SF	0	0	--	Vero	>100.0	--	10/27/86
	VV	0.2	0.07	--	L-929	100.0	--	06/12/86
	VV	0	0	--	Vero	320.0	--	07/17/86
	Ad	>0.6	>0.2	--	HEp-2	>320.0	--	09/11/86
	VSV	0	0	--	L-929	32.0	--	06/17/86
1978	PT	0.7	0.2	79.8	Vero	100.0	1.3	10/15/86
	YFV	1.9	0.6	31.5	Vero	320.0	10.2	01/20/87
	YFV	0	0	--	Vero	3.2	--	08/19/87
	PIC	N/A	N/A	--	Vero	10.32	--	12/19/86
	JE	0	0	--	Vero	32.0	--	03/11/87
	SF	1.2	0.4	32.0	Vero	32.0	1.0	10/27/86
	VV	0	0	--	L-929	1320.0	--	06/12/86
	VV	0	0	--	Vero	100.0	--	07/17/86
	Ad	0.3	0.1	--	HEp-2	100.0	--	09/11/86
	VSV	0	0	--	L-929	320.0	--	06/17/86
1979	PT	0	0	--	Vero	1.0	--	10/15/86
	PT	0	0	--	Vero	3.2	--	10/27/86
	YFV	0.3	0.1	--	Vero	1.0	--	01/20/87
	PIC	N/A	N/A	--	Vero	0.32	--	01/05/87
	JE	0	0	--	Vero	3.2	--	03/11/87
	SF	0	0	--	Vero	1.0	--	10/27/86
	VV	0.1	0.03	--	L-929	1.0	--	06/12/86
	VV	0	0	--	Vero	3.2	--	07/17/86
	Ad	0	0	--	HEp-2	3.2	--	09/11/86
	VSV	0	0	--	L-929	1.0	--	06/17/86

1980	PT	>1.7	>0.6	227.0	Vero	>320.0	>1.4	10/17/86
	YFV	0.6	0.2	56.54	Vero	10.0	0.18	08/03/87
	JE	0.55	0.18	56.54	Vero	32.0	0.57	08/03/87
	SF	0.8	0.27	42.55	Vero	10.0	0.24	08/03/87
1981	PT	0	0	--	Vero	320.0	--	10/17/86
	YFV	0.3	0.1	100.0	Vero	10.0	0.1	08/03/87
	JE	0.85	0.28	30.55	Vero	32.0	1.05	08/03/87
	SF	0.85	0.28	37.66	Vero	32.0	0.85	08/03/87
1982	PT	0	0	--	Vero	10.0	--	10/17/86
	YFV	>0.35	>0.1	--	Vero	>100.0	--	01/20/87
	PIC	N/A	N/A	141.6	Vero	100.0	0.71	01/05/87
	JE	0	0	--	Vero	>320.0	--	03/27/87
	SF	>0.8	>0.3	100.0	Vero	>100.0	>1.0	10/27/86
	VV	0.9	0.3	--	L-929	>320.0	--	06/12/86
	VV	0	0	--	Vero	320.0	--	07/17/86
	Ad	0	0	--	HEp-2	32.0	--	09/11/86
	VSV	0	0	--	L-929	320.0	--	06/17/86
Ara-A	VV	2.6	0.9	1.9	L-929	32.0	16.8	06/12/86
	VV	3.6	1.2	10.0	Vero	320.0	32.0	07/17/86
	Ad	0	0	--	HEp-2	100.0	--	09/11/86
C-3-deaza- Ado	VSV	2.8	0.9	4.9	L-929	32.0	6.5	06/13/86
	VSV	3.4	1.1	0.8	L-929	3.2	4.0	06/17/86
Ribavirin	PT	5.1	1.7	1.0	Vero	320.0	320.0	09/19/86
	PT	>2.1	>0.7	14.9	Vero	>100.0	>6.7	10/22/86
	PT	>2.3	>0.8	19.0	Vero	>100.0	>5.3	10/27/86
	PT	>3.8	>1.3	8.2	Vero	>100.0	>12.2	10/28/86
	PT	2.5	0.8	17.5	Vero	100.0	5.7	10/28/86
	PT	2.1	0.7	22.2	Vero	100.0	4.5	11/18/86
	PT	1.3	0.4	26.0	Vero	32.0	1.2	11/18/86
	PT	1.2	0.4	31.7	Vero	100.0	3.2	08/21/87
	**PT	N/A	N/A	11.5	Vero	>32.0	2.8	05/12/87
	**PT	N/A	N/A	8.4	Vero	>32.0	3.8	05/14/87
	PT	1.2	0.4	31.7	Vero	100.0	3.2	08/21/87
	PT	1.4	0.47	30.8	Vero	100.0	3.3	09/18/87
	PT	1.7	0.57	20.1	Vero	100.0	5.0	09/21/87
	PT	0.8	0.3	26.69	Vero	32.0	1.2	11/12/87
	VEE	1.2	0.4	23.88	Vero	10.0	0.42	04/13/87
	PIC	N/A	N/A	4.3	Vero	>100.0	>23.3	12/05/86
	PIC	N/A	N/A	9.3	Vero	>100.0	>10.8	12/12/86
	PIC	N/A	N/A	8.9	Vero	>100.0	>11.2	12/12/86
	SF	>6.0	>2.0	1.0	Vero	>320.0	320.0	09/23/86
	SF	>2.7	>0.9	22.7	Vero	>100.0	>4.4	10/27/86
SF	>3.0	>1.0	19.1	Vero	>100.0	>5.2	10/27/86	
SF	>3.0	>1.0	20.8	Vero	>100.0	>4.8	11/07/86	
SF	>4.0	>1.3	5.7	Vero	>100.0	>17.5	11/24/86	
SF	>3.5	>1.2	6.6	Vero	>100.0	>15.1	11/24/86	
SF	>2.4	>0.8	17.3	Vero	>100.0	>5.8	11/25/86	
SF	>3.2	>1.07	8.05	Vero	>100.0	>12.4	11/26/86	
SF	>3.55	>1.18	5.25	Vero	>100.0	>19.03	07/27/87	
SF	2.7	0.9	4.68	Vero	32.0	6.84	08/03/87	

	SF	3.2	1.07	5.05	Vero	100.0	19.81	08/18/87
Selenazole	PT	1.6	0.5	6.5	Vero	10.0	1.5	10/09/86
	PT	2.1	0.7	3.2	Vero	10.0	3.1	10/15/86
	PT	1.2	0.4	32.0	Vero	100.0	3.1	10/17/86
	PT	1.1	0.4	54.7	Vero	32.0	0.6	10/22/86
	PT	0.9	0.3	14.84	Vero	3.2	0.22	11/12/87
	YFV	2.88	0.96	1.98	Vero	10.0	5.05	01/14/87
	YFV	2.94	0.98	1.01	Vero	10.0	9.88	01/15/87
	YFV	3.47	1.16	0.96	Vero	10.0	10.5	01/16/87
	YFV	3.2	1.06	2.58	Vero	10.0	3.88	01/20/87
	YFV	2.9	0.97	2.00	Vero	10.0	4.98	03/06/87
YFV	2.39	0.8	1.57	Vero	3.2	2.03	07/29/87	
YFV	2.0	0.67	4.26	Vero	1.0	0.24	08/03/87	
YFV	1.8	0.61	4.86	Vero	1.0	0.21	08/18/87	
PIC	N/A	N/A	0.85	Vero	32.0	37.6	01/05/87	
PIC	N/A	N/A	0.7	Vero	0.1	0.14	01/06/87	
JE	2.88	0.96	1.5	Vero	10.0	6.7	03/27/87	
JE	2.4	0.8	1.95	Vero	10.0	5.1	04/01/87	
JE	3.79	1.26	0.26	Vero	3.2	12.34	07/09/87	
JE	2.29	0.76	1.67	Vero	3.2	1.92	08/03/87	
JE	2.1	0.7	4.5	Vero	10.0	2.22	08/31/87	
SF	4.9	1.6	3.6	Vero	100.0	28.0	10/10/86	
SF	3.2	1.1	0.31	Vero	32.0	103.0	10/15/86	
SF	3.5	1.2	7.1	Vero	32.0	4.5	10/21/86	

VR* = Virus Rating calculated according to the method of Sidwell and Huffman (Appl. Microbiol. 22: 797-801, 1971).

**PLAQUE REDUCTION ASSAY.
PIC--PLAQUE REDUCTION ASSAY.

UPDATED 11/16/87:ADB

Shipment No. 2

AVS No.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
33	PT	1.2	0.4	32.0	Vero	100.0	3.1	10/17/86
	VEE	0	0	--	Vero	10.0	--	05/06/87
	YFV	0.1	0.03	--	Vero	32.0	--	01/20/87
	PIC	N/A	N/A	240.7	Vero	100.0	0.41	01/09/87
	PIC	N/A	N/A	--	Vero	3.2	--	01/16/87
	JE	0.25	0.08	--	Vero	32.0	--	03/12/87
	SF	3.4	1.1	10.0	Vero	32.0	3.2	10/28/86
	SF	1.3	0.4	--	Vero	10.0	--	12/01/86
	VV	0.6	0.2	100.0	Vero	320.0	3.2	07/24/86
	Ad	0.3	0.1	--	HEp-2	100.0	--	09/18/86
VSV	0	0	--	L-929	100.0	--	06/20/86	
65	PT	2.5	0.8	55.0	Vero	32.0	0.6	10/23/86
	VEE	0	0	--	Vero	10.0	--	05/06/87
	YFV	0.55	0.18	29.8	Vero	10.0	0.34	01/20/87
	PIC	N/A	N/A	16.6	Vero	3.2	0.2	01/09/87
	JE	1.2	0.4	3.1	Vero	3.2	1.0	03/12/87
	SF	2.6	0.9	1.6	Vero	3.2	2.0	10/28/86
	SF	>0.6	>0.2	--	Vero	>1.0	--	12/01/86
	VV	0.4	0.1	--	Vero	10.0	--	07/24/86
	Ad	0.7	0.2	--	HEp-2	10.0	--	09/18/86
	VSV	0	0	--	L-929	320.0	--	06/20/86
71	PT	0.6	0.2	32.0	Vero	100.0	3.1	10/23/86
	VEE	0	0	--	Vero	>1.0	--	05/06/87
	YFV	0	0	--	Vero	100.0	--	01/21/87
	PIC	N/A	N/A	174.0	Vero	100.0	0.06	01/09/87
	PIC	N/A	N/A	--	Vero	32.0	--	01/16/87
	JE	0	0	--	Vero	100.0	--	03/12/87
	SF	>3.7	>1.2	16.4	Vero	>100.0	>6.1	10/28/86
	VV	1.7	0.6	81.4	Vero	320.0	3.9	07/24/86
	Ad	0.3	0.1	--	HEp-2	100.0	--	09/18/86
	VSV	0	0	--	L-929	320.0	--	06/20/86
78	PT	0.5	0.2	9.5	Vero	10.0	1.1	10/23/86
	VEE	0	0	--	Vero	3.2	--	05/06/87
	YFV	0	0	--	Vero	0.32	--	01/21/87
	PIC	N/A	N/A	23.9	Vero	0.32	0.01	01/09/87
	JE	1.0	0.33	3.1	Vero	3.2	1.0	03/12/87
	SF	1.8	0.6	--	Vero	1.0	--	10/28/86
	VV	0.6	0.2	8.5	Vero	10.0	1.2	07/24/86
	Ad	0	0	--	HEp-2	10.0	--	09/18/86
	VSV	0.6	0.2	29.8	L-929	32.0	1.1	06/20/86
	87	PT	1.1	0.4	47.0	Vero	100.0	2.1	10/23/86
VEE		0.75	0.25	--	Vero	10.0	--	05/06/87
YFV		0.75	0.25	100.0	Vero	100.0	1.0	01/21/87
PIC		N/A	N/A	35.4	Vero	32.0	0.9	01/09/87
JE		0.125	0.041	--	Vero	100.0	--	03/12/87
SF		0.6	0.2	9.3	Vero	10.0	1.1	10/28/86
VV		0	0	--	Vero	320.0	--	07/24/86
Ad		0.3	0.1	--	HEp-2	320.0	--	09/18/86
VSV		0	0	--	L-929	100.0	--	06/20/86
95		PT	1.9	0.6	22.7	Vero	100.0	4.4	10/23/86

	VEE	>0.1	>0.03	--	Vero	>100.0	--	05/06/87
	YFV	0	0	--	Vero	100.0	--	01/21/87
	PIC	N/A	N/A	9.15	Vero	>100.0	>10.9	01/13/87
	JE	0	0	--	Vero	>100.0	--	03/12/87
	SF	0	0	--	Vero	100.0	--	11/17/86
	SF	1.15	0.38	12.9	Vero	100.0	7.7	12/15/86
	VV	0	0	--	Vero	100.0	--	07/24/86
	Ad	0.8	0.3	--	HEp-2	320.0	--	09/18/86
	VSV	0	0	--	L-929	>320.0	--	06/20/86
96	PT	1.0	0.3	--	Vero	32.0	--	10/21/86
	VEE	0.53	0.18	--	Vero	100.0	--	05/06/87
	YFV	0	0	--	Vero	32.0	--	01/21/87
	PIC	N/A	N/A	--	Vero	<0.32	--	01/13/87
	JE	0	0	--	Vero	>100.0	--	03/12/87
	SF	0.4	0.1	--	Vero	320.0	--	10/15/86
	SF	0.5	0.17	--	Vero	3.2	--	11/17/86
	VV	0	0	--	Vero	320.0	--	07/24/86
	Ad	0	0	--	HEp-2	10.0	--	09/18/86
	VSV	0	0	--	L-929	100.0	--	06/20/86
148	PT	6.3	2.1	<0.32	Vero	320.0	>1000	10/21/86
	PT	1.2	0.4	0.32	Vero	1.0	3.15	08/21/87
	**PT	>4.42	>1.47	0.38	Vero	>1.0	2.67	06/17/87
	VEE	0	0	--	Vero	1.0	--	05/06/87
	YFV	3.3	1.1	0.89	Vero	3.2	3.59	01/22/87
	PIC	N/A	N/A	0.66	Vero	>100.0	>151	01/13/87
	PIC	N/A	N/A	0.17	Vero	100.0	589	01/30/87
	JE	2.91	0.97	0.72	Vero	1.0	1.4	03/12/87
	SF	3.6	1.2	2.3	Vero	32.0	13.9	10/14/86
	SF	4.05	1.35	0.25	Vero	3.2	12.9	11/18/86
	SF	3.9	1.3	0.3	Vero	1.0	3.4	12/15/86
	SF	0.55	0.18	0.7	Vero	1.0	1.43	08/18/87
	VV	5.4	1.8	1.0	Vero	100.0	100.0	07/24/86
	Ad	0.5	0.2	<0.32	HEp-2	<0.3	21.0	09/18/86
	Ad	0.9	0.3	0.09	HEp-2	0.1	1.1	09/25/86
	VSV	2.6	0.9	0.32	L-929	0.3	1.0	06/20/86
	VSV	2.6	0.9	2.2	L-929	1.0	0.5	08/15/86
181	PT	>0.4	>0.1	--	Vero	>320.0	--	10/21/86
	VEE	0	0	--	Vero	320.0	--	05/06/87
	YFV	0	0	--	Vero	>320.0	--	01/22/87
	PIC	N/A	N/A	--	Vero	>320.0	--	01/13/87
	PIC	N/A	N/A	--	Vero	>1.0	--	02/03/87
	JE	0	0	--	Vero	>100.0	--	03/12/87
	SF	>1.4	>0.5	--	Vero	>320.0	--	10/14/86
	SF	0	0	--	Vero	320.0	--	11/18/86
	SF	0	0	--	Vero	>320.0	--	11/21/86
	SF	0	0	--	Vero	>320.0	--	11/24/86
	VV	0	0	--	Vero	>320.0	--	07/24/86
	Ad	0	0	--	HEp-2	>320.0	--	09/18/86
	VSV	0	0	--	L-929	32.0	--	06/20/86
199	PT	1.5	0.5	30.7	Vero	100.0	3.3	10/21/86
	YFV	0	0	--	Vero	10.0	--	08/03/87
	JE	1.28	0.43	102.2	Vero	320.0	3.1	03/23/87
	JE	0	0	--	Vero	100.0	--	08/03/87
	SF	0.1	0.03	--	Vero	3.2	--	08/03/87
200	PT	2.1	0.7	15.6	Vero	100.0	6.4	10/21/86

	SF	1.65	0.55	0.087	Vero	0.01	0.12	08/18/87
	VV	0.6	0.2	3.0	Vero	1.0	0.3	07/24/86
	Ad	1.5	0.5	0.1	HEp-2	0.1	1.0	09/18/86
	VSV	0.9	0.3	1.0	L-929	<0.3	<0.3	06/20/86
361	PT							
	JE	1.5	0.5	0.026	Vero	0.1	3.82	07/24/87
	VV	20.5	20.2	--	Vero	20.3	--	07/24/86
	VV	0.5	0.2	0.3	Vero	0.1	0.3	10/30/86
	Ad	1.3	0.4	0.1	HEp-2	0.1	1.0	09/18/86
	Ad	0.6	0.2	0.3	HEp-2	0.1	0.3	10/30/86
	VSV	>1.0	>0.3	<0.3	L-929	20.3	1.0	06/20/86
	VSV	1.6	0.5	0.3	L-929	0.1	0.3	08/15/86
646	PT	1.6	0.5	13.2	Vero	0.32	0.02	10/31/86
	VEE	3.15	1.05	0.05	Vero	0.1	1.98	05/07/87
	YFV	3.1	1.03	0.25	Vero	3.2	13.0	03/06/87
	YFV	0.65	0.22	0.52	Vero	0.032	0.06	08/19/87
	PIC	N/A	N/A	0.15	Vero	>100.0	>681	01/23/87
	PIC	N/A	N/A	0.37	Vero	>10.0	>27.0	02/03/87
	JE	2.9	0.97	0.007	Vero	0.032	4.6	03/27/87
	SF	4.2	1.4	<0.10	Vero	3.2	232.0	10/17/86
	SF	4.3	1.4	0.6	Vero	10.0	16.7	11/05/86
	SF	0.8	0.27	0.43	Vero	0.32	0.75	08/18/87
	VV	24.0	1.3	0.6	Vero	1.0	1.7	07/24/86
	Ad	1.5	0.5	3.2	HEp-2	3.2	1.0	09/18/86
	VSV	0	0	--	L-929	100.0	--	06/24/86
1983	PT	0	0	--	Vero	>100.0	--	10/31/86
	VEE	0.85	0.28	--	Vero	20.1	--	05/07/87
	YFV	3.2	1.1	7.45	Vero	320.0	42.9	01/23/87
	YFV	0.15	0.05	--	Vero	32.0	--	08/19/87
	PIC	N/A	N/A	--	Vero	320.0	--	01/23/87
	PIC	N/A	N/A	--	Vero	320.0	--	04/21/87
	JE	0	0	--	Vero	320.0	--	03/27/87
	SF	3.0	1.0	0.32	Vero	32.0	100.0	10/22/86
	SF	0	0	--	Vero	>10.0	--	11/26/86
	SF	0	0	--	Vero	100.0	--	08/18/87
	VV	0	0	--	Vero	320.0	--	07/24/86
	Ad	0.9	0.3	100.0	HEp-2	320.0	3.2	09/18/86
	VSV	0.1	0.03	--	L-929	100.0	--	06/24/86
1984	PT	>0.1	>0.03	--	Vero	>100.0	--	10/31/86
	VEE	0	0	--	Vero	100.0	--	05/07/87
	PIC	N/A	N/A	--	Vero	>320.0	--	01/23/87
	JE	0	0	--	Vero	320.0	--	03/27/87
	SF	2.9	1.0	1.0	Vero	32.0	32.0	10/22/86
	SF	0	0	--	Vero	>100.0	--	11/26/86
	SF	0	0	--	Vero	32.0	--	08/18/87
	VV	0	0	--	Vero	>320.0	--	07/24/86
	Ad	>1.9	>0.6	88.0	HEp-2	>320.0	3.6	09/18/86
	VSV	0	0	--	L-929	320.0	--	06/24/86
1985	PT	0.5	0.2	100.0	Vero	10.0	0.1	10/31/86
	VEE	0	0	--	Vero	3.2	--	05/07/87
	YFV	3.8	1.3	1.2	Vero	32.0	26.3	01/23/87
	YFV	2.69	0.9	3.9	Vero	10.0	2.56	07/29/87
	PIC	N/A	N/A	4.7	Vero	32.0	6.9	01/23/87
	PIC	N/A	N/A	--	Vero	10.0	--	02/03/87
	JE	2.65	0.88	3.96	Vero	32.0	8.08	03/27/87

	VEE	0.15	0.05	--	Vera	10.0	--	05/06/87
	YFV	0	0	--	Vera	>100.0	--	01/22/87
	PIC	N/A	N/A	--	Vera	<100.0	--	01/13/87
	JE	0	0	--	Vera	100.0	--	03/12/87
	SF	>0.7	>0.2	--	Vera	>100.0	--	10/14/86
	SF	0.15	0.05	--	Vera	100.0	--	11/17/86
	VV	1.0	0.3	52.4	Vera	100.0	1.9	07/24/86
	Ad	0.2	0.07	--	HEp-2	32.0	--	09/18/86
	VSV	0.1	0.03	--	L-929	100.0	--	06/20/86
346	PT	0.9	0.3	6.6	Vera	10.0	1.5	11/18/86
	YFV	0.7	0.23	0.84	Vera	1.0	1.19	08/03/87
	YFV	1.2	0.4	1.79	Vera	1.0	0.56	08/13/87
	JE	0.25	0.08	--	Vera	0.32	--	08/03/87
	JE	0.2	0.07	--	Vera	10.0	--	09/04/87
	SF	2.72	0.91	0.065	Vera	0.32	4.91	08/03/87
	SF	1.6	0.53	0.238	Vera	1.0	4.21	08/31/87
347	PT	1.5	0.5	1.0	Vera	1.0	1.0	10/28/86
	VEE	1.5	0.5	2.75	Vera	1.0	0.36	05/06/87
	YFV	0.75	0.25	5.1	Vera	10.0	1.98	01/22/87
	PIC	N/A	N/A	0.45	Vera	1.0	2.2	01/16/87
	PIC	N/A	N/A	--	Vera	<0.1	--	02/03/87
	JE	1.05	0.35	2.59	Vera	10.0	3.86	03/13/87
	SF	1.5	0.5	5.1	Vera	10.0	2.0	10/17/86
	SF	0.65	0.22	--	Vera	0.032	--	11/25/86
	VV	0.6	0.2	7.5	Vera	3.2	0.4	07/24/86
	Ad	0.8	0.3	0.1	HEp-2	0.3	3.2	09/18/86
	VSV	0.6	0.2	3.0	L-929	1.0	0.3	06/20/86
349	PT	0.5	0.2	3.1	Vera	3.2	1.0	10/28/86
	VEE	1.15	0.38	5.27	Vera	10.0	1.9	05/07/87
	YFV	0.95	0.32	4.1	Vera	10.0	2.4	01/22/87
	PIC	N/A	N/A	1.64	Vera	3.2	1.95	01/16/87
	JE	0.2	0.07	5.1	Vera	10.0	1.97	03/13/87
	SF	1.7	0.6	2.5	Vera	3.2	1.3	10/17/86
	SF	0.55	0.18	--	Vera	3.2	--	11/25/86
	VV	<0.5	<0.2	--	Vera	10.0	--	07/24/86
	Ad	1.0	0.3	0.1	HEp-2	0.3	3.2	09/18/86
	VSV	0	0	--	L-929	1.0	--	06/20/86
351	PT	0.6	0.2	9.3	Vera	10.0	1.1	10/28/86
	VEE	>1.1	>0.37	--	Vera	>10.0	--	05/07/87
	YFV	(QNS)						
	PIC	N/A	N/A	--	Vera	<100.0	--	01/16/87
	PIC	N/A	N/A	--	Vera	<320.0	--	03/27/87
	JE	0.9	0.3	2.17	Vera	<10.0	<4.6	08/04/87
	SF	0	0	--	Vera	3.2	--	08/04/87
352	YFV	0	0	--	Vera	3.2	--	08/04/87
	JE	0.6	0.2	5.65	Vera	10.0	1.77	08/04/87
360	PT	2.0	0.7	0.2	Vera	1.0	5.0	10/31/86
	VEE	1.85	0.62	0.2	Vera	0.1	0.5	05/07/87
	YFV	1.6	0.53	0.07	Vera	0.32	4.6	03/06/87
	PIC	N/A	N/A	0.18	Vera	1.0	5.5	01/23/87
	JE	1.18	0.39	0.01	Vera	0.032	3.43	03/27/87
	SF	2.5	0.8	0.02	Vera	0.32	16.0	10/17/86
	SF	1.8	0.6	0.32	Vera	1.0	3.1	11/05/86
	SF	1.05	0.35	--	Vera	0.032	--	11/25/86

	SF	>3.7	>1.2	6.1	Vero	>100.0	>16.4	10/22/86
	SF	2.55	0.85	4.58	Vero	10.0	2.18	07/28/87
	VV	17.2	2.4	(0.32	Vero	100.0	312.5	07/24/86
	Ad	0.3	0.1	--	HEp-2	3.2	--	09/18/86
	VSV	0	0	--	L-929	3.2	--	06/24/86
1986	PT	0	0	--	Vero	>320.0	--	10/30/86
	VEE	0	0	--	Vero	320.0	--	05/07/87
	YFV	0	0	--	Vero	320.0	--	01/22/87
	PIC	N/A	N/A	--	Vero	>320.0	--	01/23/87
	PIC	N/A	N/A	--	Vero	(0.32	--	02/03/87
	JE	(ON RETEST)						
	SF	2.5	0.8	--	Vero	320.0	--	10/22/86
	SF	0	0	--	Vero	>320.0	--	11/05/86
	VV	17.4	12.5	0.6	Vero	>320.0	533.3	07/24/86
	Ad	0	0	--	HEp-2	>320.0	--	09/18/86
	VSV	0	0	--	L-929	320.0	--	06/24/86
1987	PT	0	0	--	Vero	>320.0	--	10/30/86
	VEE	0	0	--	Vero	>320.0	--	05/07/87
	YFV	0	0	--	Vero	>320.0	--	01/22/87
	PIC	N/A	N/A	--	Vero	>320.0	--	01/23/87
	JE	0	0	--	Vero	320.0	--	03/27/87
	SF	3.1	1.0	19.0	Vero	100.0	5.3	10/22/86
	VV	6.8	2.3	1.7	Vero	>320.0	188.2	07/24/86
	Ad	0	0	--	HEp-2	>320.0	--	09/18/86
	VSV	0	0	--	L-929	>320.0	--	06/24/86
1988	PT	0	0	--	Vero	>320.0	--	10/30/86
	VEE	0	0	--	Vero	320.0	--	05/07/87
	YFV	0	0	--	Vero	320.0	--	01/22/87
	PIC	N/A	N/A	--	Vero	100.0	--	01/27/87
	JE	0	0	--	Vero	>320.0	--	03/27/87
	SF	0	0	--	Vero	>320.0	--	11/07/86
	VV	>6.4	>2.1	3.6	Vero	>320.0	88.9	07/24/86
	Ad	0	0	--	HEp-2	320.0	--	09/18/86
	VSV	0	0	--	L-929	>320.0	--	06/24/86
1989	PT	0.2	0.07	--	Vero	1.0	--	10/30/86
	VEE	0	0	--	Vero	32.0	--	05/07/87
	YFV	0	0	--	Vero	32.0	--	01/22/87
	PIC	N/A	N/A	--	Vero	320.0	--	01/27/87
	JE	0	0	--	Vero	>320.0	--	03/27/87
	SF	0	0	--	Vero	32.0	--	11/25/86
	VV	0	0	--	Vero	32.0	--	07/24/86
	Ad	0	0	--	HEp-2	100.0	--	09/18/86
	VSV	0	0	--	L-929	10.0	--	06/24/86
1990	PT	0.3	0.1	--	Vero	100.0	--	10/30/86
	VEE	0	0	--	Vero	100.0	--	05/08/87
	YFV	0	0	--	Vero	32.0	--	01/22/87
	PIC	N/A	N/A	--	Vero	1.0	--	01/27/87
	JE	0.15	0.05	--	Vero	32.0	--	03/17/87
	SF	1.75	0.58	15.6	Vero	10.0	0.64	11/25/86
	VV	0	0	--	Vero	100.0	--	07/24/86
	Ad	0	0	--	HEp-2	32.0	--	09/18/86
	VSV	0	0	--	L-929	100.0	--	06/24/86
Ara-A	VV	3.1	1.0	9.8	Vero	320.0	32.7	07/24/86
	VV	2.4	0.8	3.2	Vero	3.2	3.1	10/30/86

C-3-deaza- Adc	VSV	3.2	1.1	3.0	L-929	10.0	3.3	06/20/86
	VSV	2.5	0.8	2.6	L-929	3.2	1.2	06/24/86
Ribavirin	PT	>2.3	>0.8	41.8	Vero	>100.0	>2.4	10/23/86
	PT	>3.8	>1.3	8.2	Vero	>100.0	>12.2	10/28/86
	PT	2.5	0.8	17.5	Vero	100.0	5.7	10/28/86
	PT	1.5	0.5	47.0	Vero	100.0	2.1	10/30/86
	PT	>2.5	>0.8	13.8	Vero	>100.0	>7.2	10/30/86
	PT	>1.8	>0.6	32.0	Vero	>100.0	>3.1	10/31/86
	PT	2.1	0.7	22.2	Vero	100.0	4.5	11/18/86
	PT	1.3	0.4	26.0	Vero	32.0	1.2	11/18/86
	PT	1.2	0.4	31.7	Vero	100.0	3.2	08/21/87
	**PT	11.61	3.87	5.9	Vero	100.0	16.96	06/17/87
	VEE	2.35	0.78	3.07	Vero	3.2	1.04	05/06/87
	VEE	2.35	0.78	4.05	Vero	10.0	2.47	05/07/87
	VEE	2.15	0.72	4.94	Vero	10.0	2.02	05/08/87
	PIC	N/A	N/A	7.6	Vero	>100.0	>13.2	03/27/87
	PIC	N/A	N/A	2.7	Vero	>100.0	>37.1	04/21/87
	SF	3.0	1.0	0.32	Vero	32.0	100.0	10/22/86
	SF	>5.2	>1.7	1.9	Vero	>100.0	>52.6	10/28/86
	SF	>3.0	>1.0	20.8	Vero	>100.0	>4.8	10/28/86
	SF	>2.9	>1.0	14.4	Vero	>100.0	>6.9	11/05/86
	SF	>2.5	>0.8	24.1	Vero	>100.0	>30.1	11/05/86
	SF	>3.0	>1.0	20.8	Vero	>100.0	>4.8	11/07/86
	SF	2.1	0.7	21.0	Vero	100.0	4.8	11/17/86
	SF	2.4	0.8	10.0	Vero	100.0	10.0	11/21/86
	SF	>4.0	>1.3	5.7	Vero	>100.0	>17.5	11/24/86
	SF	>3.3	>1.1	7.5	Vero	>100.0	>13.3	11/25/86
	SF	>2.4	>0.8	17.3	Vero	>100.0	>5.8	11/25/86
	SF	>3.2	>1.07	8.05	Vero	>100.0	>12.4	11/26/86
	SF	3.49	1.16	1.95	Vero	32.0	16.45	07/28/87
	SF	2.7	0.9	4.68	Vero	32.0	6.84	08/03/87
	SF	2.1	0.7	8.3	Vero	32.0	3.85	08/04/87
	SF	3.2	1.07	5.05	Vero	100.0	19.81	08/18/87
	SF	2.1	0.7	8.31	Vero	32.0	3.85	08/31/87
Ad	1.7	0.6	21.2	HEp-2	32.0	1.5	09/18/86	
Ad	1.2	0.4	26.2	HEp-2	32.0	1.2	10/30/86	
Selenazole	PT	1.2	0.4	32.0	Vero	100.0	3.1	10/17/86
	PT	2.1	0.7	19.8	Vero	100.0	5.1	10/21/86
	PT	2.7	0.9	5.5	Vero	32.0	5.8	10/21/86
	YFV	2.6	0.9	3.1	Vero	10.0	3.2	01/21/87
	YFV	3.1	1.0	2.6	Vero	32.0	12.1	01/22/87
	YFV	2.1	0.7	3.2	Vero	3.2	1.0	01/22/87
	YFV	3.8	1.3	1.1	Vero	10.0	9.2	01/23/87
	YFV	2.25	0.75	3.07	Vero	3.2	1.0	01/23/87
	YFV	2.9	0.97	2.00	Vero	10.0	4.98	03/06/87
	YFV	2.39	0.8	1.57	Vero	3.2	2.03	07/29/87
	YFV	2.0	0.67	4.26	Vero	1.0	0.24	08/03/87
	YFV	2.65	0.88	1.18	Vero	1.0	0.85	08/04/87
	YFV	2.45	0.82	1.7	Vero	1.0	0.59	08/13/87
	YFV	1.83	0.61	4.86	Vero	1.0	0.21	08/19/87

PIC	N/A	N/A	2.1	Vero	10.0	4.8	01/03/87
PIC	N/A	N/A	11.6	Vero	>100.0	>8.6	01/13/87
PIC	N/A	N/A	2.5	Vero	>100.0	>41	01/16/87
PIC	N/A	N/A	1.7	Vero	100.0	58	01/23/87
PIC	N/A	N/A	1.05	Vero	32.0	31	01/27/87
PIC	N/A	N/A	1.9	Vero	100.0	52	01/30/87
PIC	N/A	N/A	1.1	Vero	>100.0	93	02/03/87
JE	3.6	1.2	1.0	Vero	10.0	9.99	03/12/87
JE	4.2	1.4	0.2	Vero	10.0	47.4	03/12/87
JE	3.3	1.1	1.23	Vero	10.0	8.2	03/17/87
JE	4.1	1.4	0.65	Vero	10.0	15.3	03/23/87
JE	2.88	0.96	1.5	Vero	10.0	6.7	03/27/87
JE	2.6	0.87	1.6	Vero	3.2	2.0	07/24/87
JE	2.29	0.76	1.67	Vero	3.2	1.92	08/03/87
JE	3.4	1.13	0.71	Vero	3.2	4.52	08/04/87
JE	2.24	0.75	2.03	Vero	3.2	1.58	09/04/87
SF	0.6	0.2	93.2	Vero	100.0	1.1	10/14/86
SF	5.3	1.8	0.19	Vero	100.0	526.0	10/17/86
SF	2.5	0.83	3.8	Vero	10.0	2.6	12/01/86
SF	2.8	0.93	3.85	Vero	10.0	2.6	12/15/86
SF	3.09	1.03	1.77	Vero	10.0	5.7	12/15/86
VV	2.5	0.8	13.8	Vero	10.0	0.7	07/24/86
VV	2.2	0.7	17.4	Vero	10.0	0.6	10/30/86
Ad	1.4	0.5	7.5	HEp-2	10.0	1.3	09/18/86
Ad	1.4	0.5	50.7	HEp-2	32.0	0.6	10/30/86

VR* = Virus Rating calculated according to the method of Sidwell and Huffman (Appl. Microbiol. 22: 797-801, 1971).

UPDATED 09/14/87:ADR

**PLAQUE REDUCTION ASSAY.
PIC--PLAQUE REDUCTION ASSAY.

1998	PT	0.8	0.3	75.0	Vero	100.0	1.3	10/22/86
	VEE	0	0	--	Vero	100.0	--	05/08/87
	YFV	0.1	0.03	--	Vero	32.0	--	01/26/87
	PIC	N/A	N/A	--	Vero	>320.0	--	02/06/87
	JE	0	0	--	Vero	100.0	--	03/17/87
	SF	1.7	0.6	32.0	Vero	32.0	1.0	10/24/86
1999	PT	0	0	--	Vero	>320.0	--	10/22/86
	VEE	0	0	--	Vero	100.0	--	05/08/87
	YFV	>0.2	>0.07	--	Vero	>320.0	--	01/26/87
	PIC	N/A	N/A	--	Vero	>320.0	--	02/10/87
	JE	>0.35	>0.12	--	Vero	>320.0	--	04/01/87
	SF	0	0	--	Vero	>320.0	--	10/24/86
2001	PT	0.8	0.3	66.0	Vero	32.0	0.5	10/22/86
	VEE	0	0	--	Vero	100.0	--	05/08/87
	YFV	0	0	--	Vero	320.0	--	01/26/87
	PIC	N/A	N/A	--	Vero	>320.0	--	02/10/87
	JE	0.1	0.03	--	Vero	32.0	--	03/17/87
	SF	2.3	0.8	32.0	Vero	32.0	1.0	10/24/86
2002	PT	0.2	0.07	--	Vero	320.0	--	10/22/86
	VEE	0	0	--	Vero	320.0	--	05/08/87
	YFV	0	0	--	Vero	>320.0	--	01/27/87
	JE	>0.2	>0.07	--	Vero	>320.0	--	03/18/87
	SF	1.4	0.5	--	Vero	320.0	--	10/24/86
	SF	0	0	--	Vero	>100.0	--	11/26/86
2003	PT	0.7	0.2	62.0	Vero	100.0	1.6	10/22/86
	VEE	0	0	--	Vero	32.0	--	05/11/87
	YFV	0.8	0.3	96.9	Vero	320.0	3.3	01/27/87
	PIC	N/A	N/A	--	Vero	>320.0	--	02/10/87
	JE	0.05	0.02	--	Vero	320.0	--	03/18/87
	SF	2.1	0.7	95.1	Vero	100.0	1.1	10/23/86
SF	>0.3	>0.1	--	Vero	>100.0	--	11/10/86	
2004	PT	>0.3	>0.1	--	Vero	>320.0	--	10/22/86
	VEE	0.6	0.2	281.2	Vero	32.0	0.1	05/11/87
	YFV	>2.0	>0.7	96.9	Vero	>320.0	3.3	01/27/87
	PIC	N/A	N/A	--	Vero	>320.0	--	02/10/87
	JE	>0.15	>0.05	421.63	Vero	>320.0	0.76	04/01/87
	SF	>1.5	>0.5	--	Vero	>320.0	--	10/23/86
SF	>0.9	>0.3	--	Vero	>100.0	--	11/10/86	
2005	PT	1.0	0.3	64.0	Vero	100.0	1.6	10/22/86
	VEE	0	0	--	Vero	10.0	--	05/11/87
	YFV	0	0	--	Vero	100.0	--	01/27/87
	PIC	N/A	N/A	--	Vero	100.0	--	02/23/87
	JE	0.025	0.008	--	Vero	320.0	--	04/01/87
	SF	1.9	0.6	93.2	Vero	32.0	0.3	10/23/86
SF	0	0	--	Vero	>10.0	--	11/26/86	
2006	PT	1.2	0.4	56.0	Vero	100.0	1.8	10/22/86
	VEE	0	0	--	Vero	10.0	--	05/11/87
	YFV	1.7	0.57	85.5	Vero	32.0	0.37	01/27/87
	PIC	N/A	N/A	--	Vero	>320.0	--	02/10/87
	JE	0.85	0.28	95.1	Vero	32.0	0.34	04/01/87
	SF	2.8	0.9	30.9	Vero	32.0	1.0	10/23/86
SF	>1.2	>0.4	--	Vero	>10.0	--	12/01/86	

Shipment No. 3

AVS No.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
1991	PT	0.6	0.2	298.0	Vera	320.0	1.1	10/17/86
	VEE	1.0	0.3	0.7	Vera	1.0	1.36	05/08/87
	YFV	0	0	--	Vera	30.32	--	01/23/87
	PIC	N/A	N/A	2.65	Vera	3.2	1.2	01/30/87
	JE	0.1	0.03	--	Vera	110.0	--	03/17/87
	SF	1.2	0.4	0.89	Vera	3.2	3.6	10/17/86
	SF	0	0	--	Vera	3.2	--	11/05/86
	1992	PT	1.5	0.5	66.0	Vera	100.0	1.5	10/21/86
VEE		0	0	--	Vera	100.0	--	05/13/87
YFV		0	0	--	Vera	100.0	--	01/23/87
PIC		N/A	N/A	34.9	Vera	320.0	3.4	01/30/87
JE		0	0	--	Vera	100.0	--	03/17/87
SF		0.8	0.3	94.9	Vera	32.0	0.3	10/27/86
SF		0.55	0.18	--	Vera	32.0	--	11/17/86
1993		PT	0.1	0.03	--	Vera	320.0	--	10/21/86
	VEE	0.35	0.12	--	Vera	10.0	--	05/08/87
	YFV	0	0	--	Vera	320.0	--	01/23/87
	PIC	N/A	N/A	--	Vera	320.0	--	01/30/87
	JE	0	0	--	Vera	100.0	--	03/17/87
	SF	0	0	--	Vera	10.0	--	10/27/87
	1994	PT	0.8	0.3	66.0	Vera	32.0	0.5	10/21/86
VEE		0	0	--	Vera	100.0	--	05/08/87
YFV		0	0	--	Vera	100.0	--	01/23/87
PIC		N/A	N/A	--	Vera	320.0	--	02/06/87
JE		0.1	0.03	--	Vera	100.0	--	03/17/87
SF		0	0	--	Vera	100.0	--	10/27/86
1995		PT	1.1	0.4	69.0	Vera	100.0	1.4	10/21/86
	VEE	0	0	--	Vera	100.0	--	05/08/87
	YFV	0	0	--	Vera	10.0	--	01/23/87
	PIC	N/A	N/A	--	Vera	320.0	--	02/06/87
	JE	0.35	0.12	--	Vera	100.0	--	04/01/87
	SF	2.9	1.0	7.8	Vera	100.0	12.8	10/21/86
	SF	0	0	--	Vera	100.0	--	10/27/86
	SF	0	0	--	Vera	10.0	--	11/17/86
	SF	0.45	0.15	--	Vera	100.0	--	11/25/86
1996	PT	0.7	0.2	81.0	Vera	32.0	0.4	10/21/86
	VEE	0.5	0.17	100.0	Vera	10.0	0.1	05/08/87
	YFV	0	0	--	Vera	100.0	--	01/26/87
	PIC	N/A	N/A	66.0	Vera	100.0	1.5	02/06/87
	JE	0	0	--	Vera	100.0	--	03/17/87
	SF	1.9	0.6	--	Vera	100.0	--	10/21/86
	SF	0	0	--	Vera	100.0	--	11/25/86
1997	PT	0	0	--	Vera	320.0	--	10/22/86
	VEE	0	0	--	Vera	320.0	--	05/08/87
	YFV	0	0	--	Vera	320.0	--	01/26/87
	PIC	N/A	N/A	--	Vera	320.0	--	02/06/87
	JE	0	0	--	Vera	100.0	--	03/17/87
	SF	2.1	0.7	96.3	Vera	320.0	3.3	10/24/86

2007	PT	>0.8	>0.3	320.0	Vero	>320.0	>1.0	10/24/86
	VEE	0	0	--	Vero	10.0	--	05/11/87
	YFV	0	0	--	Vero	320.0	--	01/27/87
	PIC	N/A	N/A	--	Vero	100.0	--	02/10/87
	JE	0	0	--	Vero	>320.0	--	03/18/87
	SF	2.6	0.9	--	Vero	100.0	--	10/23/86
	SF	>0.8	>0.3	--	Vero	>32.0	--	12/01/86
2008	PT	0.2	0.07	--	Vero	320.0	--	10/24/86
	VEE	0	0	--	Vero	100.0	--	05/11/87
	YFV	1.7	0.55	15.9	Vero	32.0	2.0	01/27/87
	PIC	N/A	N/A	--	Vero	100.0	--	02/17/87
	JE	2.15	0.72	3.8	Vero	10.0	2.6	03/18/87
	SF	0.3	0.1	--	Vero	320.0	--	10/28/86
2009	PT	0.2	0.07	--	Vero	320.0	--	10/24/86
	VEE	0	0	--	Vero	10.32	--	05/11/87
	YFV	0.2	0.07	--	Vero	100.0	--	01/27/87
	PIC	N/A	N/A	--	Vero	<320.0	--	02/17/87
	JE	>0.4	>0.13	--	Vero	>320.0	--	03/18/87
	SF	0.7	0.2	--	Vero	320.0	--	10/28/86
2010	PT	0.6	0.2	93.0	Vero	100.0	1.1	10/24/86
	VEE	0	0	--	Vero	10.1	--	05/11/87
	YFV	0	0	--	Vero	100.0	--	01/27/87
	PIC	N/A	N/A	--	Vero	>320.0	--	02/17/87
	JE	0	0	--	Vero	<320.0	--	03/18/87
	SF	0.5	0.2	--	Vero	100.0	--	10/28/86
	SF	0.1	0.03	--	Vero	100.0	--	11/21/86
2011	PT	0.8	0.3	75.0	Vero	100.0	1.3	10/24/86
	VEE	0	0	--	Vero	32.0	--	05/11/87
	YFV	0	0	--	Vero	>320.0	--	01/27/87
	PIC	N/A	N/A	--	Vero	>320.0	--	02/17/87
	JE	0	0	--	Vero	320.0	--	03/18/87
	SF	0	0	--	Vero	100.0	--	10/28/86
	SF	0	0	--	Vero	>100.0	--	11/21/86
2012	PT	0.2	0.05	--	Vero	10.0	--	11/18/86
	VEE	0	0	--	Vero	10.0	--	05/11/87
	YFV	0	0	--	Vero	100.0	--	01/28/87
	PIC	N/A	N/A	--	Vero	<100.0	--	02/17/87
	JE	0	0	--	Vero	32.0	--	03/18/87
	SF	0.5	0.2	--	Vero	100.0	--	10/28/86
	SF	0	0	--	Vero	32.0	--	11/21/86
2013	PT	0.7	0.2	--	Vero	10.0	--	11/18/86
	VEE	0	0	--	Vero	10.1	--	05/11/87
	YFV	0.3	0.1	3.2	Vero	1.0	0.3	01/28/87
	PIC	N/A	N/A	--	Vero	>320.0	--	02/27/87
	JE	0	0	--	Vero	320.0	--	03/19/87
	SF	>3.1	>1.0	52.3	Vero	>320.0	6.1	11/12/86
2014	PT	0.6	0.2	93.2	Vero	10.0	0.1	11/18/86
	VEE	0	0	--	Vero	320.0	--	05/13/87
	YFV	0.2	0.07	--	Vero	100.0	--	01/28/87
	PIC	N/A	N/A	--	Vero	>320.0	--	02/23/87
	JE	0	0	--	Vero	320.0	--	03/19/87
	SF	0.2	0.07	--	Vero	320.0	--	11/12/86

2015	PT	0.6	0.2	94.9	Vero	10.0	0.1	11/18/86
	VEE	0	0	--	Vero	320.0	--	05/13/87
	YFV	0	0	--	Vero	320.0	--	01/28/87
	PIC	N/A	N/A	--	Vero	100.0	--	02/23/87
	JE	0	0	--	Vero	320.0	--	03/19/87
	SF	0	0	--	Vero	>320.0	--	11/12/86
2016	PT	0.2	0.07	--	Vero	32.0	--	11/18/86
	VEE	0	0	--	Vero	>320.0	--	05/13/87
	YFV	0.25	0.08	--	Vero	100.0	--	01/28/87
	PIC	N/A	N/A	--	Vero	320.0	--	02/23/87
	JE	0	0	--	Vero	320.0	--	03/19/87
	SF	0	0	--	Vero	>320.0	--	11/07/86
2017	PT	1.5	0.5	53.0	Vero	32.0	0.6	10/27/86
	VEE	0	0	--	Vero	32.0	--	05/13/87
	YFV	0.2	0.07	--	Vero	10.0	--	01/28/87
	PIC	N/A	N/A	--	Vero	320.0	--	02/23/87
	JE	0	0	--	Vero	100.0	--	03/19/87
	SF	0.4	0.1	--	Vero	320.0	--	11/12/86
2018	PT	1.3	0.4	31.0	Vero	100.0	3.2	10/27/86
	VEE	0	0	--	Vero	100.0	--	05/13/87
	YFV	0.15	0.05	--	Vero	100.0	--	01/28/87
	PIC	N/A	N/A	--	Vero	<320.0	--	02/23/87
	JE	0	0	--	Vero	320.0	--	03/19/87
	SF	0.4	0.1	--	Vero	320.0	--	11/12/86
2019	PT	0.7	0.2	2.4	Vero	3.2	1.3	10/27/86
	VEE	0	0	--	Vero	3.2	--	05/13/87
	YFV	0.2	0.07	--	Vero	320.0	--	01/28/87
	PIC	N/A	N/A	3.13	Vero	<10.32	0.1	02/27/87
	JE	0	0	--	Vero	10.0	--	03/19/87
	SF	0.2	0.07	--	Vero	3.2	--	11/13/86
	SF	0	0	--	Vero	<3.2	--	12/23/86
2020	PT	1.6	0.5	21.0	Vero	32.0	1.5	10/27/86
	VEE	0	0	--	Vero	100.0	--	05/13/87
	YFV	0.09	0.03	--	Vero	320.0	--	01/28/87
	PIC	N/A	N/A	--	Vero	>320.0	--	02/27/87
	JE	0	0	--	Vero	>320.0	--	03/19/87
	SF	0	0	--	Vero	>320.0	--	11/13/86
2021	PT	1.0	0.3	60.0	Vero	32.0	0.5	10/27/86
	VEE	0	0	--	Vero	100.0	--	05/13/87
	YFV	0	0	--	Vero	320.0	--	01/28/87
	PIC	N/A	N/A	--	Vero	>320.0	--	02/27/87
	JE	0	0	--	Vero	>320.0	--	03/19/87
	SF	0	0	--	Vero	>320.0	--	11/13/86
2022	PT	0	0	--	Vero	320.0	--	10/28/86
	VEE	0	0	--	Vero	320.0	--	05/13/87
	YFV	0	0	--	Vero	320.0	--	01/29/87
	PIC	N/A	N/A	--	Vero	320.0	--	02/06/87
	JE	0	0	--	Vero	320.0	--	03/19/87
	SF	0	0	--	Vero	>320.0	--	10/27/86
2023	PT	0	0	--	Vero	32.0	--	10/29/86
	VEE	0	0	--	Vero	32.0	--	05/13/87

	YFV	0.9	0.3	91.8	Vero	32.0	0.35	01/29/87	
	PIC	N/A	N/A	335.4	Vero	>320.0	>0.95	02/27/87	
	JE	1.4	0.47	40.77	Vero	32.0	0.78	03/19/87	
	SF	0.2	0.07	--	Vero	32.0	--	11/07/86	
	VSV	0	0	--	L929	32.0	--	6/24/86	
Selenazole	PT	1.2	0.4	32.0	Vero	100.0	3.1	10/17/86	
	PT	2.1	0.7	19.8	Vero	100.0	5.1	10/21/86	
	PT	1.1	0.4	54.7	Vero	32.0	0.6	10/22/86	
	YFV	2.25	0.75	3.07	Vero	3.2	1.04	01/23/87	
	YFV	2.0	0.7	7.17	Vero	10.0	1.4	01/26/87	
	YFV	2.9	0.97	0.89	Vero	3.2	3.6	01/27/87	
	YFV	2.05	0.68	2.28	Vero	1.0	0.04	01/27/87	
	YFV	1.95	0.65	2.0	Vero	3.2	1.6	01/28/87	
	YFV	1.95	0.65	3.03	Vero	3.2	1.05	01/28/87	
	YFV	2.65	0.88	2.5	Vero	10.0	4.0	01/29/87	
	PIC	N/A	N/A	1.9	Vero	100.0	52.3	01/30/87	
	PIC	N/A	N/A	0.19	Vero	>100.0	>517.6	02/06/87	
	PIC	N/A	N/A	1.2	Vero	32.0	26.1	02/10/87	
	JE	3.3	1.1	1.23	Vero	10.0	8.2	03/17/87	
	JE	3.8	1.3	0.7	Vero	10.0	14.3	03/18/87	
	JE	2.45	0.82	1.33	Vero	10.0	7.5	03/19/87	
	JE	2.4	0.8	1.95	Vero	10.0	5.1	04/01/87	
	SF	5.3	1.8	0.19	Vero	100.0	526.0	10/17/86	
	SF	3.5	1.2	7.1	Vero	32.0	4.5	10/21/86	
	SF	2.5	0.8	3.8	Vero	10.0	2.6	12/01/86	
	SF	2.7	0.9	7.3	Vero	3.2	0.4	12/23/86	
Ribavirin	PT	>2.1	>0.7	14.9	Vero	>100.0	>6.7	10/22/86	
	PT	>2.8	>0.9	10.0	Vero	>100.0	>10.0	10/24/86	
	PT	>2.3	>0.8	19.0	Vero	>100.0	>5.3	10/27/86	
	PT	>3.8	>1.3	8.2	Vero	>100.0	>12.2	10/28/86	
	PT	2.5	0.8	17.5	Vero	100.0	5.7	10/28/86	
	PT	>2.7	>0.9	10.0	Vero	>100.0	>10.0	10/29/86	
	PT	>2.4	>0.8	14.7	Vero	>100.0	>6.8	10/29/86	
	PT	2.1	0.7	22.2	Vero	100.0	4.5	11/18/86	
	PT	1.3	0.4	26.0	Vero	32.0	1.2	11/18/86	
		VEE	2.15	0.72	4.9	Vero	10.0	2.02	05/08/87
		VEE	2.0	0.7	7.3	Vero	10.0	1.36	05/11/87
		VEE	2.1	0.7	28.09	Vero	100.0	3.56	05/13/87
		PIC	N/A	N/A	8.1	Vero	>100.0	>12.4	02/17/87
		PIC	N/A	N/A	2.5	Vero	>100.0	>40.1	02/23/87
		PIC	N/A	N/A	4.3	Vero	>100.0	>23.3	02/27/87
		SF	>4.4	>1.5	2.4	Vero	>100.0	>41.7	10/23/86
		SF	>3.8	>1.3	12.6	Vero	>100.0	>7.9	10/24/86
	SF	>2.7	>0.9	22.7	Vero	>100.0	>4.4	10/27/86	
	SF	>3.0	>1.0	19.1	Vero	>100.0	>5.2	10/27/86	
	SF	>5.2	>1.7	1.9	Vero	>100.0	>52.6	10/28/86	
	SF	>3.0	>1.0	20.8	Vero	>100.0	>4.8	10/28/86	
	SF	>2.9	>1.0	14.4	Vero	>100.0	>6.9	11/05/86	
	SF	>2.5	>0.8	24.1	Vero	>100.0	>30.1	11/05/86	
	SF	>3.0	>1.0	20.8	Vero	>100.0	>4.8	11/07/86	
	SF	>4.4	>1.5	2.3	Vero	>100.0	>43.5	11/10/86	

SF	>3.4	>1.1	14.1	Vero	>100.0	>7.1	11/12/86
SF	>4.0	>1.3	0.92	Vero	>100.0	>109.0	11/12/86
SF	>4.0	>1.3	6.1	Vero	>100.0	>16.4	11/13/86
SF	>4.4	>1.5	2.9	Vero	>100.0	>34.5	11/13/86
SF	>3.0	>1.0	10.0	Vero	>100.0	>10.0	11/13/86
SF	2.1	0.7	21.0	Vero	100.0	4.8	11/17/86
SF	2.4	0.8	10.0	Vero	100.0	10.0	11/21/86
SF	>3.3	>1.1	7.5	Vero	>100.0	>13.3	11/25/86
SF	>3.2	>1.07	8.05	Vero	>100.0	>12.4	11/26/86

 VR* = Virus Rating calculated according to the method of Sidwell and
 Huffman (Appl. Microbiol. 22: 797-801, 1971).

PIC--PLAQUE REDUCTION ASSAY

UPDATED 05/18/87:ADB

Shipments No. 4

AVS No.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
1	PT	> 3.2	> 1.1	18.0	Verc	> 100.0	> 5.6	10/27/86
	**PT	N/A	N/A	8.4	Verc	> 32.0	> 3.8	05/14/87
	VEE	1.35	0.45	17.8	Verc	32.0	1.8	05/14/87
	YFV	0.8	0.27	73.4	Verc	100.0	1.4	05/13/87
	PIC	N/A	N/A	7.6	Verc	> 100.0	> 13.2	03/20/87
	JE	1.3	0.43	32.1	Verc	100.0	3.1	03/20/87
	SF	> 4.5	> 1.5	5.2	Verc	> 100.0	> 19.2	10/29/86
	**SF	N/A	N/A	19.7	Verc	100.0	5.1	05/13/87
	VV	> 2.1	> 0.7	150.7	Verc	> 320.0	2.1	07/31/86
	Ad	1.4	0.5	57.4	HEp-2	100.0	1.7	09/25/86
	VSV	1.3	0.4	77.1	L-929	32.0	0.4	06/24/86
52	PT	0.6	0.2	262.0	Verc	100.0	0.4	10/29/86
	VEE	0	0	--	Verc	100.0	--	05/14/87
	YFV	0	0	--	Verc	32.0	--	01/29/87
	PIC	N/A	N/A	--	Verc	> 100.0	--	03/02/87
	JE	0.95	0.32	77.4	Verc	100.0	1.3	03/20/87
	SF	0.75	0.25	--	Verc	32.0	--	11/24/86
	VV	0.4	0.1	--	Verc	100.0	--	07/31/86
	Ad	0.2	0.07	--	HEp-2	1.0	--	09/25/86
	VSV	0.4	0.1	--	L-929	32.0	--	06/24/86
103	PT	0	0	--	Verc	> 320.0	--	10/29/86
	VEE	0	0	--	Verc	> 320.0	--	05/14/87
	YFV	0	0	--	Verc	320.0	--	01/29/87
	PIC	N/A	N/A	--	Verc	> 320.0	--	03/02/87
	JE	0	0	--	Verc	> 320.0	--	03/20/87
	SF	0	0	--	Verc	> 320.0	--	11/25/86
	VV	0	0	--	Verc	> 320.0	--	07/31/86
	Ad	0	0	--	HEp-2	> 320.0	--	09/25/86
	VSV	0	0	--	L-929	100.0	--	06/24/86
105	PT	0.8	0.3	66.0	Verc	32.0	0.5	10/29/86
	VEE	0	0	--	Verc	32.0	--	05/14/87
	YFV	0	0	--	Verc	32.0	--	01/29/87
	PIC	N/A	N/A	--	Verc	< 10.0	--	03/02/87
	JE	0	0	--	Verc	10.0	--	03/20/87
	SF	0.9	0.3	29.9	Verc	32.0	1.1	11/24/86
	VV	0	0	--	Verc	320.0	--	07/31/86
	Ad	0	0	--	HEp-2	3.2	--	09/25/86
	VSV	0.1	0.03	--	L-929	100.0	--	06/24/86
122	PT	0.6	0.2	182.0	Verc	100.0	0.5	10/27/86
	VEE	0	0	--	Verc	10.0	--	05/14/87
	YFV	1.0	0.3	58.1	Verc	1.0	0.17	01/29/87
	PIC	N/A	N/A	--	Verc	3.2	--	03/02/87
	JE	3.0	1.0	2.0	Verc	3.2	1.6	03/20/87
	SF	0	0	--	Verc	32.0	--	11/07/86
	VV	2.1	0.7	10.0	Verc	32.0	3.2	07/31/86
	Ad	1.7	0.6	4.2	HEp-2	3.2	0.8	09/25/86
	VSV	1.2	0.4	75.1	L-929	3.2	0.1	06/24/86
132	PT	> 0.4	> 0.1	--	Verc	> 100.0	--	10/27/86
	VEE	0	0	--	Verc	> 100.0	--	05/14/87
	YFV	0	0	--	Verc	100.0	--	01/29/87

	PIC	N/A	N/A	--	Vero	>100.0	--	03/20/87
	JE	0	0	--	Vero	>320.0	--	03/20/87
	SF	0.8	0.27	6.9	Vero	3.2	0.46	11/24/86
	VV	0	0	--	Vero	320.0	--	07/31/86
	Ad	0	0	--	HEp-2	100.0	--	09/25/86
	VSV	0	0	--	L-929	32.0	--	06/27/86
136	PT	>1.5	>0.5	73.0	Vero	>320.0	>4.4	10/27/86
	VEE	0.15	0.05	--	Vero	32.0	--	05/14/87
	YFV	1.2	0.4	66.9	Vero	100.0	1.5	01/29/87
	PIC	N/A	N/A	198.5	Vero	>320.0	>1.6	03/20/87
	JE	2.1	0.7	30.7	Vero	320.0	10.4	03/20/87
	JE	>1.9	>0.63	94.47	Vero	>320.0	>3.4	07/28/87
	SF	0	0	--	Vero	>320.0	--	10/29/86
	SF	0	0	--	Vero	>320.0	--	11/18/86
	SF	0	0	--	Vero	100.0	--	11/21/86
	VV	0.2	0.07	--	Vero	320.0	--	07/31/86
	Ad	1.3	0.43	96.9	HEp-2	320.0	3.3	09/25/86
	VSV	0.2	0.07	--	L-929	320.0	--	06/27/86
140	PT	0.3	0.1	1.0	Vero	1.0	1.0	10/27/86
	VEE	0	0	--	Vero	0.32	--	05/14/87
	YFV	0.35	0.12	20.6	Vero	10.0	0.49	01/29/87
	PIC	N/A	N/A	0.48	Vero	>100.0	>208.2	03/20/87
	JE	0.7	0.23	0.096	Vero	0.1	1.04	04/09/87
	SF	0.5	0.2	0.08	Vero	1.0	12.5	10/29/86
142	PT	0	0	--	Vero	>320.0	--	10/28/86
	VEE	0	0	--	Vero	100.0	--	05/14/87
	YFV	0.075	0.025	--	Vero	100.0	--	01/29/87
	PIC	N/A	N/A	--	Vero	>320.0	--	03/20/87
	JE	0	0	--	Vero	>320.0	--	03/20/87
	SF	>0.2	>0.07	--	Vero	>320.0	--	10/29/86
	SF	0	0	--	Vero	>100.0	--	11/19/86
	VV	0	0	--	Vero	>320.0	--	07/31/86
	Ad	0	0	--	HEp-2	320.0	--	09/25/86
	VSV	0	0	--	L-929	320.0	--	06/27/86
147	PT	0	0	--	Vero	100.0	--	10/28/86
	YFV	0	0	--	Vero	10.0	--	01/30/87
	PIC	N/A	N/A	--	Vero	32.0	--	03/20/87
	JE	0	0	--	Vero	32.0	--	03/20/87
	SF	1.0	0.3	2100.0	Vero	100.0	±1.0	10/29/86
	VV	0.3	0.1	--	Vero	10.0	--	07/31/86
	Ad	0	0	--	HEp-2	32.0	--	09/25/86
	VSV	0	0	--	L-929	10.0	--	06/27/86
195	PT	>0.5	>0.2	--	Vero	>100.0	--	10/28/86
	YFV	0	0	--	Vero	100.0	--	01/30/87
	PIC	N/A	N/A	--	Vero	>100.0	--	03/23/87
	JE	0	0	--	Vero	>320.0	--	03/20/87
	SF	0	0	--	Vero	>100.0	--	10/29/86
	SF	0	0	--	Vero	>32.0	--	11/19/86
	VV	0	0	--	Vero	100.0	--	07/31/86
	Ad	>1.4	>0.5	217.0	HEp-2	>320.0	>1.5	09/25/86
	VSV	0	0	--	L-929	100.0	--	06/27/86
202	PT	1.9	0.6	141.0	Vero	320.0	2.3	10/28/86
	YFV	0.7	0.23	82.1	Vero	±0.32	0.004	01/30/87
	PIC	N/A	N/A	297.9	Vero	>320.0	>1.07	03/23/87

	JE	1.1	0.37	122.02	Vero	320.0	2.6	03/23/87
	SF	2.0	0.7	--	Vero	320.0	--	10/30/86
	VV	0.5	0.2	306.5	Vero	320.0	1.0	07/31/86
	Ad	0	0	--	HEp-2	320.0	--	09/25/86
	VSV	0	0	--	L-929	100.0	--	06/27/86
206	PT	>2.7	>0.9	67.0	Vero	>320.0	>4.8	10/28/86
	VEE	0.95	0.32	135.9	Vero	320.0	2.35	05/14/87
	YFV	1.35	0.45	115.1	Vero	320.0	2.8	01/30/87
	PIC	N/A	N/A	87.2	Vero	>320.0	>3.7	03/23/87
	JE	>1.75	>0.58	108.2	Vero	>320.0	>2.96	03/23/87
	SF	3.7	1.2	22.6	Vero	320.0	14.2	10/29/86
	SF	2.2	0.73	21.6	Vero	100.0	4.63	08/07/87
	VV	1.2	0.4	85.3	Vero	100.0	1.2	08/07/86
	Ad	0.8	0.3	238.8	HEp-2	320.0	1.3	09/25/86
	VSV	0.6	0.2	295.0	L-929	100.0	0.3	07/18/86
332	PT	0.6	0.2	--	Vero	32.0	--	10/29/86
	VEE	1.05	0.35	10.0	Vero	3.2	0.32	05/15/87
	YFV	0	0	--	Vero	10.32	--	01/30/87
	PIC	N/A	N/A	17.5	Vero	>100.0	>5.7	03/23/87
	JE	0	0	--	Vero	32.0	--	03/23/87
	SF	0.9	0.3	63.6	Vero	3.2	0.1	10/30/86
	VV	0.2	0.07	--	Vero	10.0	--	08/07/86
	Ad	0.4	0.1	--	HEp-2	3.2	--	09/25/86
	VSV	0.3	0.1	--	L-929	10.0	--	07/18/86
593	PT	0	0	--	Vero	320.0	--	10/29/86
	YFV	0.73	0.24	261.8	Vero	320.0	1.2	01/30/87
	PIC	N/A	N/A	--	Vero	>100.0	--	03/23/87
	JE	0	0	--	Vero	>320.0	--	03/23/87
	SF	>0.9	>0.3	--	Vero	>320.0	--	10/30/86
	SF	0	0	--	Vero	>100.0	--	11/19/86
	VV	0	0	--	Vero	320.0	--	07/31/86
	Ad	0	0	--	HEp-2	>320.0	--	09/25/86
	VSV	0	0	--	L-929	320.0	--	06/27/86
2039	PT	0	0	--	Vero	32.0	--	10/29/86
	YFV	0	0	--	Vero	10.0	--	01/30/87
	PIC	N/A	N/A	--	Vero	10.32	--	03/27/87
	JE	0	0	--	Vero	<100.0	--	03/23/87
	SF	1.1	0.4	--	Vero	32.0	--	10/30/86
	SF	0	0	--	Vero	32.0	--	11/19/86
2040	PT	0.5	0.2	298.0	Vero	32.0	0.1	10/29/86
	YFV	0.23	0.08	--	Vero	32.0	--	01/30/87
	PIC	N/A	N/A	254.7	Vero	10.32	0.001	03/27/87
	JE	0	0	--	Vero	32.0	--	03/23/87
	SF	1.6	0.5	--	Vero	320.0	--	10/30/86
	SF	0.25	0.08	--	Vero	10.0	--	11/19/86
	SF	0	0	--	Vero	3.2	--	12/23/86
2041	PT	0	0	--	Vero	32.0	--	10/29/86
	YFV	0	0	--	Vero	10.0	--	01/30/87
	PIC	N/A	N/A	--	Vero	10.32	--	03/27/87
	JE	0.1	0.03	--	Vero	<100.0	--	03/23/87
	SF	1.1	0.4	--	Vero	32.0	--	10/30/86
2042	PT	0.2	0.07	--	Vero	3.2	--	10/29/86
	YFV	0	0	--	Vero	10.32	--	01/30/87

	PIC	N/A	N/A	--	Vero	3.2	--	03/27/87
	JE	0.18	0.06	--	Vero	1.0	--	03/23/87
	SF	0.6	0.2	--	Vero	1.0	--	10/29/86
	SF	0.6	0.2	9.2	Vero	3.2	0.35	12/02/86
Ara-A	VV	2.4	0.8	10.0	Vero	32.0	3.2	07/31/86
C-3-deaza- Adc	VSV	1.7	0.6	25.0	L-929	10.0	0.4	06/27/86
Selenazole	PT							
	YFV	2.65	0.88	2.5	Vero	10.0	4.0	01/29/87
	YFV	3.2	1.1	1.8	Vero	10.0	5.5	01/30/87
	YFV	2.68	0.89	3.0	Vero	10.0	3.3	01/30/87
	JE	4.6	1.5	0.3	Vero	10.0	33.6	03/20/87
	JE	4.1	1.4	0.65	Vero	10.0	15.3	03/23/87
	JE	3.77	1.26	0.6	Vero	10.0	16.5	04/09/87
	JE	2.7	0.9	1.5	Vero	3.2	2.09	07/28/87
	SF	3.35	1.12	1.32	Vero	10.0	7.6	12/02/86
	SF	2.4	0.8	9.3	Vero	32.0	3.4	12/02/86
	SF	1.8	0.6	6.3	Vero	10.0	1.6	12/02/86
	SF	2.7	0.9	7.3	Vero	3.2	0.44	12/23/86
	VV	2.6	0.9	24.0	Vero	32.0	1.3	07/31/86
	Ad	1.7	0.6	9.7	HEp-2	32.0	3.3	09/25/86
Ribavirin	PT	>2.3	>0.8	19.0	Vero	>100.0	>5.3	10/27/86
	PT	>3.8	>1.3	8.2	Vero	>100.0	>12.2	10/28/86
	PT	2.5	0.8	17.5	Vero	100.0	5.7	10/28/86
	PT	>2.7	>0.9	10.0	Vero	>100.0	>10.0	10/29/86
	PT	>2.4	>0.8	14.7	Vero	>100.0	>6.8	10/29/86
	VEE	1.35	0.45	17.8	Vero	32.0	1.8	05/14/87
	PIC	N/A	N/A	3.7	Vero	32.0	8.7	03/02/87
	PIC	N/A	N/A	5.1	Vero	>100.0	>19.7	03/23/87
	PIC	N/A	N/A	7.6	Vero	>100.0	>13.2	03/27/87
	SF	>2.6	>0.9	25.9	Vero	>100.0	>3.9	10/29/86
	SF	>2.8	>0.9	14.9	Vero	>100.0	>6.7	10/30/86
	SF	>3.3	>1.1	17.5	Vero	>100.0	>5.7	10/30/86
	SF	>3.0	>1.0	20.8	Vero	>100.0	>4.8	11/07/86
	SF	>2.3	>0.87	13.6	Vero	>100.0	>7.4	11/18/86
	SF	2.9	0.97	9.4	Vero	100.0	10.6	11/19/86
	SF	2.4	0.8	10.0	Vero	100.0	10.0	11/21/86
	SF	>4.0	>1.3	5.7	Vero	>100.0	>17.5	11/24/86
	SF	>2.4	>0.8	17.3	Vero	>100.0	>5.8	11/25/86
	SF	3.1	1.03	5.06	Vero	100.0	19.78	08/07/87

VR* = Virus Rating calculated according to the method of Sidwell and Huffmar (Appl. Microbiol. 22: 797-801, 1971).

**PLAQUE REDUCTION ASSAY

!--Compounds also received in Drug Shipment Number 5.

Shipment No. 5

AVS No.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
197	PT	>1.7	>0.6	73.0	Vero	>320.0	>4.4	10/30/86
	VEE	>0.8	>0.27	--	Vero	>320.0	--	05/14/87
	YFV	0.1	0.13	--	Vero	320.0	--	02/02/87
	SF	>3.4	>1.1	49.7	Vero	>320.0	>6.4	10/29/86
	VV	0	0	--	Vero	>320.0	--	08/07/86
	Ad	0	0	--	HEp-2	>320.0	--	09/25/86
	VSV	0	0	--	L-929	100.0	--	08/01/86
206	PT	1.5	0.5	73.0	Vero	320.0	4.4	10/30/86
	VEE	0.95	0.32	135.9	Vero	320.0	2.35	05/14/87
	YFV	0.6	0.2	297.9	Vero	320.0	1.1	02/02/87
	PIC	N/A	N/A	87.2	Vero	>320.0	>3.7	03/23/87
	JE	>1.75	>0.6	108.2	Vero	>320.0	>2.96	03/23/87
	SF	3.7	1.2	22.6	Vero	320.0	14.2	10/29/86
	SF	2.2	0.73	21.62	Vero	100.0	4.63	08/07/87
	VV	1.2	0.4	85.3	Vero	100.0	1.2	08/07/86
	Ad	0.8	0.3	238.8	HEp-2	320.0	1.3	09/25/86
VSV	0.6	0.2	295.0	L-929	100.0	0.3	07/18/86	
222	PT	0	0	--	Vero	>32.0	--	10/30/86
	VEE	0	0	--	Vero	>100.0	--	05/14/87
	YFV	0	0	--	Vero	100.0	--	02/02/87
	PIC	N/A	N/A	--	Vero	>100.0	--	04/03/87
	JE	0	0	--	Vero	320.0	--	03/23/87
	SF	0	0	--	Vero	10.0	--	11/05/86
	VV	0	0	--	Vero	100.0	--	08/07/86
	Ad	0	0	--	HEp-2	100.0	--	09/25/86
	VSV	0	0	--	L-929	100.0	--	07/18/86
245	PT	>0.3	>0.1	--	Vero	>320.0	--	10/30/86
	VEE	0.6	0.2	297.9	Vero	32.0	0.1	05/15/87
	YFV	0.53	0.18	229.6	Vero	320.0	1.4	02/02/87
	PIC	N/A	N/A	--	Vero	100.0	--	04/03/87
	JE	0.23	0.075	--	Vero	320.0	--	03/23/87
	SF	>1.4	>0.5	--	Vero	>100.0	--	10/29/86
	SF	0.95	0.32	98.4	Vero	100.0	1.0	12/01/86
	VV	0.3	0.1	--	Vero	320.0	--	08/07/86
	Ad	0	0	--	HEp-2	320.0	--	09/25/86
VSV	0	0	--	L-929	100.0	--	07/18/86	
257	PT	0.6	0.2	229.0	Vero	320.0	1.4	10/30/86
	VEE	3.7	1.23	3.2	Vero	32.0	9.97	05/15/87
	YFV	1.31	0.44	74.1	Vero	320.0	4.3	02/02/87
	PIC	N/A	N/A	174.5	Vero	100.0	0.6	04/03/87
	JE	1.9	0.6	23.8	Vero	100.0	4.2	03/24/87
	SF	1.2	0.4	150.7	Vero	100.0	0.7	10/30/86
	VV	1.4	0.5	174.1	Vero	320.0	1.8	08/07/86
	Ad	0.7	0.2	259.9	HEp-2	320.0	1.2	09/25/86
	VSV	1.6	0.5	60.9	L-929	3.2	0.1	08/01/86
286	PT	0	0	--	Vero	0.32	--	11/13/86
	VEE	1.3	0.43	6.6	Vero	10.01	0.002	05/15/87
	YFV	0.15	0.05	--	Vero	0.01	--	03/06/87
	JE	0.5	0.17	30.3	Vero	32.0	1.05	04/10/87

B-28

	SF	0	0	--	Vero	0.1	--	10/30/86
	VV	21.9	0.6	1.0	Vero	(0.32	0.3	08/07/86
	VV	1.5	0.5	0.058	Vero	0.1	1.73	10/16/86
	Ad	0	0	--	HEp-2	0.03	--	09/25/86
	VSV	2.6	0.9	1.0	L-929	(0.32	0.3	07/18/86
332	PT	0	0	--	Vero	10.0	--	11/13/86
	VEE	1.05	0.35	10.0	Vero	3.2	0.32	05/15/87
	YFV	1.14	0.38	41.8	Vero	10.0	0.24	02/02/87
	PIC	N/A	N/A	17.5	Vero	>100.0	5.7	03/23/87
	JE	0	0	--	Vero	32.0	--	03/23/87
	SF	0.9	0.3	63.6	Vero	3.2	0.1	10/30/86
	VV	0.2	0.07	--	Vero	10.0	--	08/07/86
	Ad	0.4	0.1	--	HEp-2	3.2	--	09/25/86
	VSV	0.3	0.1	--	L-929	10.0	--	07/18/86
345	PT	0.3	0.1	--	Vero	0.32	--	11/13/86
	VEE	0.55	0.18	93.9	Vero	10.0	0.1	05/15/87
	YFV	2.91	0.97	44.6	Vero	100.0	2.2	02/02/87
	PIC	N/A	N/A	--	Vero	(320.0	--	04/13/87
	JE	0	0	--	Vero	100.0	--	04/09/87
	SF	1.0	0.3	88.0	Vero	100.0	1.1	10/30/86
	VV	0.9	0.3	100.0	Vero	100.0	1.0	05/28/87
	Ad	0	0	--	HEp-2	10.0	--	09/25/86
	VSV	0	0	--	L-929	10.0	--	07/18/86
701	PT	0	0	--	Vero	1.0	--	11/13/86
	VEE	0.9	0.3	7.1	Vero	1.0	0.14	05/15/87
	YFV	0.275	0.09	--	Vero	32.0	--	02/02/87
	PIC	N/A	N/A	--	Vero	(32.0	--	04/13/87
	JE	0.6	0.2	24.3	Vero	10.0	0.4	04/09/87
	SF	1.2	0.4	55.6	Vero	32.0	0.6	10/30/86
	VV	0	0	--	Vero	3.2	--	08/07/86
	Ad	0	0	--	HEp-2	10.0	--	09/25/86
	VSV	0	0	--	L-929	32.0	--	07/18/86
703	PT	0	0	--	Vero	32.0	--	11/13/86
	VEE	1.35	0.45	20.9	Vero	32.0	1.53	05/15/87
	YFV	3.0	1.0	2.47	Vero	32.0	12.96	02/02/87
	YFV	1.33	0.44	17.43	Vero	10.0	0.57	07/29/87
	PIC	N/A	N/A	--	Vero	(320.0	--	04/13/87
	JE	0.85	0.28	98.6	Vero	32.0	0.32	04/09/87
	SF	1.6	0.5	52.7	Vero	32.0	0.6	11/03/86
	VV	0	0	--	Vero	10.0	--	08/07/86
	Ad	0.2	0.07	--	HEp-2	100.0	--	09/25/86
	VSV	0	0	--	L-929	32.0	--	07/18/86
866	PT	0.02	0.007	--	Vero	10.0	--	07/24/87
	VEE	0	0	--	Vero	>100.0	--	05/15/87
	JE	1.10	0.37	46.43	Vero	100.0	2.15	07/10/87
	VV	0	0	--	Vero	100.0	--	10/16/86
	Ad	0	0	--	HEp-2	100.0	--	10/16/86
	VSV	0	0	--	L-929	10.0	--	07/18/86
999	PT	0	0	--	Vero	320.0	--	11/14/86
	VEE	0	0	--	Vero	320.0	--	05/15/87
	YFV	0	0	--	Vero	100.0	--	02/03/87
	PIC	N/A	N/A	--	Vero	(320.0	--	04/13/87
	JE	0	0	--	Vero	100.0	--	03/24/87
	SF	0	0	--	Vero	3.2	--	11/03/86

	VV	0	0	--	Vero	320.0	--	08/07/86
	Ad	0	0	--	HEp-2	100.0	--	09/25/86
	VSV	0	0	--	L-929	100.0	--	08/01/86
1089	PT	3.4	1.1	0.9	Vero	3.2	3.6	11/14/86
	VEE	3.35	1.12	2.85	Vero	100.0	35.1	05/15/87
	YFV	2.5	0.83	3.1	Vero	3.2	1.0	02/03/87
	PIC	N/A	N/A	0.95	Vero	1.0	1.06	04/13/87
	JE	4.18	1.39	0.45	Vero	3.2	7.08	04/09/87
	SF	>5.2	>1.7	1.0	Vero	>100.0	>100.0	11/03/86
	SF	3.42	1.14	1.05	Vero	3.2	3.05	07/27/87
	VV	1.7	0.6	81.4	Vero	320.0	3.9	08/07/86
	Ad	1.0	0.3	3.2	HEp-2	10.0	3.1	09/25/86
	VSV	2.2	0.7	7.8	L-929	1.0	0.1	08/01/86
1160	PT	1.0	0.3	51.4	Vero	0.7	0.01	11/14/86
	VEE	3.35	1.12	5.8	Vero	32.0	5.5	05/15/87
	YFV	1.33	0.44	25.1	Vero	32.0	1.3	02/06/87
	PIC	N/A	N/A	--	Vero	3.2	--	04/21/87
	JE	0.55	0.18	3.0	Vero	3.2	1.07	03/24/87
	SF	1.0	0.3	70.4	Vero	100.0	1.4	11/03/86
	VV	25.6	1.9	0.6	Vero	100.0	166.7	08/07/86
	Ad	0.7	0.2	3.2	HEp-2	3.2	1.0	09/25/86
	VSV	3.2	1.1	10.32	L-929	1.0	3.1	07/18/86
	VSV	2.6	0.9	1.0	L-929	3.2	3.2	08/15/86
1192	PT							
	VEE	0	0	--	Vero	0.032	--	05/18/87
	YFV	0	0	--	Vero	10.32	--	02/03/87
	PIC	N/A	N/A	0.0015	Vero	0.001	0.68	04/21/87
	JE	0	0	--	Vero	1.0	--	03/24/87
	SF	0.3	0.1	--	Vero	0.01	--	11/03/86
	SF	>0.3	>0.1	--	Vero	10.01	--	12/02/86
1250	PT	0.02	0.007	--	Vero	10.0	--	07/24/87
	VEE	0	0	--	Vero	1.0	--	05/18/87
	PIC	-	-	--	Vero	10.0	--	10/26/87
	JE	0.3	0.1	29.09	Vero	32.0	1.10	07/09/87
	VV	0.8	0.3	21.0	Vero	10.0	0.5	08/07/86
	Ad	22.0	0.7	1.3	HEp-2	3.2	2.5	09/25/86
	Ad	0	0	--	HEp-2	10.0	--	10/16/86
	VSV	0	0	--	L-929	3.2	--	07/18/86
2135	PT	>0.6	>0.2	--	Vero	>320.0	--	11/14/86
	VEE	0	0	--	Vero	>320.0	--	05/18/87
	YFV	0	0	--	Vero	>320.0	--	02/03/87
	PIC	N/A	N/A	--	Vero	>320.0	--	04/21/87
	JE	>0.05	>0.02	--	Vero	>320.0	--	04/09/87
	SF	0	0	--	Vero	>320.0	--	11/04/86
	VV	0	0	--	Vero	>320.0	--	08/07/86
	Ad	>0.3	>.1	--	HEp-2	>320.0	--	09/25/86
	VSV	0	0	--	L-929	320.0	--	07/18/86
2136	PT	0.3	0.1	--	Vero	32.0	--	11/07/86
	VEE	0	0	--	Vero	32.0	--	05/18/87
	YFV	0	0	--	Vero	32.0	--	02/03/87
	PIC	N/A	N/A	--	Vero	>320.0	--	04/21/87
	JE	0	0	--	Vero	32.0	--	03/24/87
	SF	1.4	0.5	88.0	Vero	320.0	3.6	11/04/86
	VV	>1.7	>0.6	144.2	Vero	>320.0	>2.2	08/07/86

	Ad	0	0	--	HEp-2	>320.0	--	09/25/86
	VSV	0	0	--	L-929	10.0	--	07/18/86
2137	PT	1.2	0.4	313.4	Vero	100.0	0.3	11/07/86
	VEE	0	0	--	Vero	320.0	--	05/18/87
	YFV	>0.39	>0.13	--	Vero	>320.0	--	02/03/87
	PIC	--	--	--	Vero	320.0	--	11/03/87
	JE	>0.05	>0.02	--	Vero	>320.0	--	03/25/87
	SF	0	0	--	Vero	320.0	--	11/04/86
	VV	0	0	--	Vero	100.0	--	08/07/86
	Ad	0	0	--	HEp-2	32.0	--	09/25/86
	VSV	0	0	--	L-929	100.0	--	07/18/86
2138	PT	>1.4	>0.5	236.3	Vero	>320.0	>1.4	11/07/86
	VEE	0	0	--	Vero	100.0	--	05/18/87
	YFV	0	0	--	Vero	32.0	--	02/03/87
	JE	>0.05	>0.02	--	Vero	>320.0	--	03/25/87
	SF	0.9	0.3	91.8	Vero	320.0	3.5	11/04/86
	VV	0	0	--	Vero	100.0	--	08/07/86
	Ad	0	0	--	HEp-2	320.0	--	09/25/86
	VSV	0	0	--	L-929	32.0	--	07/18/86
2139	PT	>0.8	>0.3	--	Vero	>320.0	--	11/07/86
	VEE	0	0	--	Vero	>320.0	--	05/18/87
	YFV	0.25	0.08	--	Vero	100.0	--	02/03/87
	JE	0.38	0.13	--	Vero	320.0	--	03/25/87
	SF	0.7	0.2	262.5	Vero	32.0	0.1	11/04/86
	VV	0	0	--	Vero	100.0	--	08/07/86
	Ad	0	0	--	HEp-2	32.0	--	09/25/86
	VSV	0	0	--	L-929	100.0	--	07/18/86
2140	PT	>0.6	>0.2	--	Vero	>320.0	--	11/07/86
	VEE	0	0	--	Vero	320.0	--	05/18/87
	YFV	0	0	--	Vero	>320.0	--	02/03/87
	JE	0	0	--	Vero	>320.0	--	03/25/87
	VV	0	0	--	Vero	>320.0	--	08/07/86
	Ad	0	0	--	HEp-2	320.0	--	09/25/86
	VSV	0	0	--	L-929	>320.0	--	07/18/86
Ara-A	VV	2.6	0.9	17.0	Vero	100.0	5.9	08/07/86
	VV	3.2	1.1	2.7	Vero	32.0	11.9	10/16/86
	VV	3.85	1.28	1.09	Vero	32.0	29.5	05/28/87
C-3-deaza-								
Ado	VSV	3.0	1.0	3.1	L-929	10.0	3.2	07/18/86
Selenazole	YFV	2.25	0.75	2.22	Vero	3.2	1.4	02/02/87
	YFV	2.95	0.98	0.74	Vero	3.2	4.3	02/02/87
	YFV	2.5	0.83	2.86	Vero	10.0	3.5	02/03/87
	YFV	2.0	0.67	12.9	Vero	10.0	0.78	02/03/87
	YFV	2.25	0.75	3.03	Vero	3.2	1.05	02/06/87
	YFV	2.9	0.97	2.0	Vero	10.0	4.98	03/06/87
	YFV	2.39	0.8	1.57	Vero	3.2	2.03	07/29/87
	PIC	--	--	8.95	Vero	10.0	1.12	10/26/87
	PIC	--	--	5.65	Vero	10.0	1.77	11/03/87
	JE	4.1	1.4	0.65	Vero	10.0	15.3	03/23/87
	JE	2.19	0.73	2.06	Vero	32.0	15.5	03/24/87
	JE	2.58	0.86	2.7	Vero	10.0	3.7	03/25/87

	JE	3.77	1.26	0.6	Vero	10.0	16.5	04/09/87
	JE	4.5	1.5	0.43	Vero	10.0	23.2	04/10/87
	JE	3.79	1.26	0.26	Vero	3.2	12.34	07/09/87
	JE	3.49	1.16	0.49	Vero	3.2	6.56	07/10/87
	SF	2.5	0.8	3.8	Vero	10.0	2.6	12/01/86
	SF	3.35	1.12	1.32	Vero	10.0	7.6	12/02/86
	SF	2.4	0.8	9.3	Vero	32.0	3.4	12/02/86
	SF	1.8	0.6	6.3	Vero	10.0	1.6	12/02/86
	VV	2.2	0.7	18.8	Vero	10.0	0.5	10/16/86
	VV	2.3	0.77	9.48	Vero	10.0	1.06	05/28/87
	Ad	1.7	0.6	9.7	HEp-2	32.0	3.3	09/25/86
	Ad	2.0	0.7	8.1	HEp-2	32.0	4.0	10/16/86
Ribavirin	PT	1.5	0.5	47.0	Vero	100.0	2.1	10/30/86
	PT	>2.5	>0.8	13.8	Vero	>100.0	>7.2	10/30/86
	PT	2.4	0.8	33.9	Vero	100.0	2.9	11/07/86
	PT	>2.4	>0.8	9.2	Vero	>100.0	>10.9	11/07/86
	PT	2.4	0.8	18.8	Vero	100.0	5.3	11/13/86
	PT	1.5	0.5	47.3	Vero	100.0	2.1	11/14/86
	PT	2.43	0.81	6.7	Vero	100.0	14.9	07/24/87
	VEE	1.35	0.45	17.8	Vero	32.0	1.8	05/14/87
	VEE	2.05	0.68	8.8	Vero	32.0	3.6	05/15/87
	VEE	2.5	0.83	5.8	Vero	32.0	5.5	05/18/87
	PIC	N/A	N/A	6.1	Vero	>100.0	>16.3	04/03/87
	PIC	N/A	N/A	6.08	Vero	>100.0	16.4	04/13/87
	PIC	N/A	N/A	2.7	Vero	>100.0	>37.1	04/21/87
	PIC	--	--	55.3	Vero	100.0	1.81	10/26/87
	SF	>4.5	>1.5	5.2	Vero	>100.0	>19.2	10/29/86
	SF	>2.6	>0.9	25.9	Vero	>100.0	3.9	10/29/86
	SF	>2.8	>0.9	14.9	Vero	>100.0	>6.7	10/30/86
	SF	>3.3	>1.1	17.5	Vero	>100.0	>5.7	10/30/86
	SF	2.3	0.8	20.0	Vero	100.0	5.0	11/03/86
	SF	>2.6	>0.9	8.9	Vero	>100.0	>11.2	11/04/86
	SF	>3.0	>1.0	9.8	Vero	>100.0	>10.2	11/04/86
	SF	>2.9	>1.0	14.4	Vero	>100.0	>6.9	11/05/86
	SF	>3.55	>1.18	5.25	Vero	>100.0	>19.03	07/27/87
	SF	3.1	1.03	5.06	Vero	100.0	19.78	08/07/87
	Ad	1.7	0.6	32.0	HEp-2	100.0	3.1	10/16/86

VR* = Virus Rating calculated according to the method of Sidwell and Huffman (Appl. Microbiol. 22: 797-801, 1971).

(--Compound also received on Drug Shipment number 4.

UPDATED 11/30/87:ADB

Shipment No. 6

AVS NO.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
2087	PT	>0.86	>0.29 ¹	--	Vero	>320.0	--	01/06/87
	VEE	0	0	--	Vero	>320.0	--	05/18/87
	YFV	0.4	0.13	9.69	Vero	3.2	0.33	03/13/87
	JE	0	0	--	Vero	>320.0	--	03/25/87
	SF	0	0	--	Vero	100.0	--	12/31/86
	VV	0	0	--	Vero	>320.0	--	08/20/86
	Ad	0	0	--	HEp-2	320.0	--	10/02/86
	VSV	0	0	--	L-929	100.0	--	08/01/86
2088	PT	0	0	--	Vero	10.0	--	01/06/87
	VEE	0.15	0.05	--	Vero	32.0	--	05/18/87
	YFV	0	0	--	Vero	10.0	--	03/13/87
	JE	0	0	--	Vero	10.0	--	03/25/87
	SF	0	0	--	Vero	3.2	--	12/31/86
	VV	0	0	--	Vero	32.0	--	08/20/86
	Ad	0	0	--	HEp-2	32.0	--	10/02/86
	VSV	0	0	--	L-929	10.0	--	08/01/86
2089	PT	1.27	0.42	3.3	Vero	10.0	3.0	01/06/87
	VEE	0	0	--	Vero	10.0	--	05/18/87
	YFV	0.4	0.13	32.0	Vero	10.0	0.3	03/13/87
	JE	0	0	--	Vero	10.0	--	03/25/87
	SF	0.85	0.28	4.6	Vero	3.2	0.7	12/31/86
	VV	0.1	0.03	--	Vero	10.0	--	08/20/86
	Ad	0	0	--	HEp-2	1.0	--	10/02/86
	VSV	0	0	--	L-929	10.0	--	08/01/86
2090	PT	1.04	0.35	31.96	Vero	100.0	3.1	01/06/87
	YFV	0.3	0.1	--	Vero	32.0	--	03/13/87
	JE	0	0	--	Vero	100.0	--	03/25/87
	SF	0	0	--	Vero	32.0	--	12/31/86
	VV	0.5	0.17	320.0	Vero	100.0	0.3	08/20/86
	Ad	0	0	--	HEp-2	320.0	--	10/02/86
	VSV	0	0	--	L-929	100.0	--	08/01/86
2091	PT	0	0	--	Vero	>320.0	--	01/07/87
	YFV	0	0	--	Vero	>320.0	--	03/13/87
	JE	>0.1	>0.03	--	Vero	>320.0	--	03/25/87
	SF	0	0	--	Vero	32.0	--	12/31/86
	VV	0	0	--	Vero	>320.0	--	08/20/86
	Ad	0	0	--	HEp-2	>320.0	--	10/02/86
	VSV	0	0	--	L-929	>320.0	--	08/01/86
2092	PT	0	0	--	Vero	32.0	--	01/07/87
	YFV	0.2	0.07	--	Vero	100.0	--	03/13/87
	JE	0.2	0.07	--	Vero	320.0	--	03/25/87
	SF	0.1	0.033	--	Vero	100.0	--	01/02/87
	VV	0	0	--	Vero	320.0	--	08/20/86
	Ad	>0.7	>0.23	320.0	HEp-2	>320.0	>1.0	10/02/86
	VSV	0	0	--	L-929	32.0	--	08/08/86
2093	PT	0.25	0.08	736.0	Vero	320.0	0.43	01/07/87
	YFV	>0.7	>0.23	--	Vero	>320.0	--	03/13/87
	JE	0.58	0.19	190.7	Vero	320.0	1.7	03/25/87

	SF	>1.6	>0.53	55.9	Vera	>100.0	>1.8	01/02/87
	VV	0	0	--	Vera	320.0	--	03/17/87
	Ad	0	0	--	HEP-2	320.0	--	10/02/86
	VSV	0	0	--	L-929	320.0	--	08/08/86
2094	PT	0	0	--	Vera	100.0	--	01/07/87
	YFV	0	0	--	Vera	320.0	--	03/17/87
	JE	0.05	0.02	--	Vera	320.0	--	03/26/87
	SF	0.3	0.1	--	Vera	10.0	--	01/02/87
	VV	0	0	--	Vera	>100.0	--	08/20/86
	Ad	0.1	0.03	--	HEP2	100.0	--	10/02/86
	VSV	0	0	--	L-929	>320.0	--	08/08/86
2095	PT	0.5	0.17	--	Vera	100.0	--	01/07/87
	YFV	0.2	0.07	--	Vera	100.0	--	03/17/87
	JE	0.05	0.02	--	Vera	320.0	--	03/26/87
	SF	0.3	0.1	--	Vera	10.0	--	01/02/87
	VV	0	0	--	Vera	320.0	--	08/20/86
	Ad	>0.2	>0.07	--	HEP-2	>320.0	--	10/02/86
	VSV	0	0	--	L-929	>320.0	--	08/08/86
2096	PT	0	0	--	Vera	3.2	--	01/08/87
	YFV	0	0	--	Vera	3.2	--	03/17/87
	JE	0.1	0.03	--	Vera	10.0	--	03/26/87
	SF	0.25	0.08	107.6	Vera	3.2	0.03	01/02/87
	VV	0.5	0.17	9.5	Vera	10.0	1.1	08/20/86
	Ad	0	0	--	HEP-2	32.0	--	10/02/86
	VSV	0	0	--	L-929	10.0	--	08/08/86
2097	PT	0	0	--	Vera	320.0	--	01/08/87
	YFV	0.1	0.03	--	Vera	100.0	--	03/17/87
	JE	0	0	--	Vera	320.0	--	03/26/87
	SF	0	0	--	Vera	100.0	--	01/02/87
	VV	0	0	--	Vera	320.0	--	08/20/86
	Ad	0	0	--	HEP-2	>320.0	--	10/02/86
	VSV	0	0	--	L-929	320.0	--	08/08/86
2098	PT	0.12	0.04	--	Vera	320.0	--	01/08/87
	YFV	0	0	--	Vera	100.0	--	03/17/87
	JE	0	0	--	Vera	320.0	--	03/26/87
	SF	0	0	--	Vera	32.0	--	01/02/87
	VV	0	0	--	Vera	320.0	--	08/20/86
	Ad	>0.5	>0.17	--	HEP-2	>320.0	--	10/02/86
	VSV	0	0	--	L-929	320.0	--	08/08/86
2099	PT	>0.38	>0.13	--	Vera	>320.0	--	01/08/87
	YFV	0	0	--	Vera	32.0	--	03/17/87
	JE	0	0	--	Vera	>320.0	--	03/26/87
	SF	0	0	--	Vera	32.0	--	01/02/87
	VV	0	0	--	Vera	100.0	--	08/20/86
	Ad	0	0	--	HEP-2	100.0	--	10/02/86
	VSV	0	0	--	L-929	100.0	--	08/08/86
2100	PT	0.43	0.14	61.3	Vera	32.0	0.5	01/08/87
	YFV	0	0	--	Vera	32.0	--	03/17/87
	JE	0	0	--	Vera	32.0	--	03/26/87
	SF	1.0	0.33	190.9	Vera	32.0	0.17	01/05/87
	VV	0.4	0.13	320.0	Vera	320.0	1.0	08/20/86
	Ad	0	0	--	HEP-2	320.0	--	10/02/86
	VSV	0	0	--	L-929	32.0	--	08/08/86

2101	PT	0.07	0.02	--	Vero	100.0	--	01/09/87
	YFV	0	0	--	Vero	10.0	--	03/17/87
	JE	0	0	--	Vero	<100.0	--	03/26/87
	SF	0.5	0.17	37.3	Vero	<100.0	2.7	01/05/87
	VV	0	0	--	Vero	320.0	--	08/20/86
	Ad	0.3	0.10	--	HEp-2	320.0	--	10/02/86
	VSV	0	0	--	L-929	100.0	--	08/08/86
2102	PT	0.4	0.13	--	Vero	3.2	--	01/09/87
	YFV	0	0	--	Vero	32.0	--	03/19/87
	JE	0.1	0.03	--	Vero	100.0	--	03/26/87
	SF	0.95	0.32	36.4	Vero	32.0	0.88	01/05/87
	VV	0.8	0.27	32.0	Vero	10.0	0.3	08/20/86
	Ad	0	0	--	HEp-2	320.0	--	10/02/86
	VSV	0	0	--	L-929	10.0	--	08/08/86
2103	PT	0.17	0.056	12.7	Vero	10.0	0.79	01/09/87
	YFV	0.3	0.1	10.0	Vero	3.2	3.1	03/19/87
	JE	0	0	--	Vero	3.2	--	03/26/87
	SF	0.6	0.2	3.3	Vero	3.2	0.98	01/05/87
	VV	0	0	--	Vero	3.2	--	08/20/86
	Ad	0	0	--	HEp-2	>32.0	--	10/02/86
	VSV	0	0	--	HEp-2	320.0	--	10/16/86
2104	PT	0.4	0.13	--	Vero	10.0	--	01/09/87
	YFV	0.6	0.2	1.58	Vero	1.0	0.6	03/19/87
	JE	0.1	0.03	--	Vero	3.2	--	03/26/87
	SF	0.09	0.03	--	Vero	3.2	--	01/05/87
	VV	0.2	0.07	--	Vero	1.0	--	08/20/86
	Ad	0	0	--	HEp-2	<0.3	--	10/02/86
	VSV	0	0	--	HEp-2	0.032	--	10/16/86
2105	PT	>0.4	>0.13	--	Vero	>320.0	--	01/09/87
	YFV	0.75	0.25	--	Vero	320.0	--	03/19/87
	JE	0	0	--	Vero	320.0	--	04/01/87
	SF	0.4	0.13	--	Vero	100.0	--	01/05/87
	VV	0	0	--	Vero	320.0	--	08/20/86
	Ad	0	0	--	HEp-2	>320.0	--	10/02/86
	VSV	0	0	--	L-929	10.0	--	08/08/86
2106	PT	>0.1	>0.03	--	Vero	>320.0	--	01/12/87
	YFV	>0.1	>0.03	--	Vero	>320.0	--	03/19/87
	JE	>0.2	>0.07	--	Vero	>320.0	--	04/01/87
	SF	0.7	0.23	--	Vero	32.0	--	01/05/87
	VV	0	0	--	Vero	>320.0	--	08/20/86
	Ad	0	0	--	HEp-2	>320.0	--	10/02/86
	VSV	0	0	--	L-929	100.0	--	08/08/86
2107	PT	0	0	--	Vero	>320.0	--	01/12/87
	YFV	0.55	0.18	--	Vero	320.0	--	03/19/87
	JE	0.4	0.13	--	Vero	<100.0	--	04/01/87
	SF	0	0	--	Vero	100.0	--	01/05/87
	VV	0	0	--	Vero	>320.0	--	08/20/86
	Ad	>0.3	>0.10	--	HEp-2	>320.0	--	10/02/86
	VSV	0	0	--	L-929	320.0	--	08/08/86
2108	PT	0	0	--	Vero	320.0	--	01/12/87

	YFV	0	0	--	Vero	32.0	--	03/19/87
	JE	0	0	--	Vero	32.0	--	04/01/87
	SF	0	0	--	Vero	32.0	--	01/06/87
	VV	0	0	--	Vero	100.0	--	08/20/86
	Ad	0	0	--	HEp-2	10.0	--	10/02/86
	VSV	0	0	--	L-929	100.0	--	08/08/86
2109	PT	0	0	--	Vero	320.0	--	01/12/87
	YFV	0	0	--	Vero	100.0	--	03/19/87
	JE	0.2	0.07	--	Vero	100.0	--	04/02/87
	SF	0	0	--	Vero	100.0	--	01/06/87
	VV	0.4	0.13	320.0	Vero	100.0	0.3	08/20/86
	Ad	0.3	0.10	--	HEp-2	320.0	--	10/02/86
	VSV	0	0	--	L-929	100.0	--	08/08/86
2110	PT	0	0	--	Vero	100.0	--	01/12/87
	YFV	0	0	--	Vero	32.0	--	03/18/87
	JE	0.4	0.13	268.16	Vero	320.0	1.19	04/02/87
	SF	0	0	--	Vero	>100.0	--	01/06/87
	VV	0	0	--	Vero	>320.0	--	08/20/86
	Ad	0	0	--	HEp-2	100.0	--	10/02/86
	VSV	0	0	--	L-929	100.0	--	08/08/86
2111	PT	0.5	0.17	32.5	Vero	32.0	0.99	01/13/87
	YFV	0	0	--	Vero	3.2	--	03/18/87
	JE	0.5	0.17	--	Vero	<32.0	--	04/02/87
	SF	0.05	0.02	--	Vero	10.0	--	01/06/87
	VV	0	0	--	Vero	10.0	--	08/20/86
	Ad	0	0	--	HEp-2	10.0	--	10/02/86
	VSV	0	0	--	L-929	32.0	--	08/08/86
2112	PT	0.4	0.13	--	Vero	100.0	--	01/13/87
	YFV	0.85	0.28	91.3	Vero	100.0	1.09	03/18/87
	JE	0.95	0.32	87.93	Vero	100.0	1.14	04/02/87
	SF	0.2	0.07	--	Vero	100.0	--	01/06/87
	VV	0	0	--	Vero	>320.0	--	08/20/86
	Ad	0	0	--	HEp-2	100.0	--	10/02/86
	VSV	0	0	--	L-929	100.0	--	08/12/86
C-3-deaza-								
Adc	VSV	2.3	0.77	6.8	L-929	10.0	1.5	08/01/86
	VSV	2.1	0.70	8.2	L-929	10.0	1.2	08/08/86
Ara-A	VV	2.9	0.97	8.1	Vero	100.0	12.3	08/20/86
Selenazole	PT	1.99	0.66	8.69	Vero	10.0	1.2	01/06/87
	PT	1.65	0.55	5.0	Vero	3.2	0.64	01/07/87
	PT	1.39	0.46	7.61	Vero	10.0	1.3	01/08/87
	PT	1.55	0.52	16.6	Vero	3.2	0.19	01/09/87
	PT	0.75	0.25	66.6	Vero	3.2	0.05	01/12/87
	PT	1.05	0.35	18.2	Vero	3.2	0.18	01/13/87
	YFV	2.57	0.86	2.6	Vero	10.0	3.8	03/13/87
	YFV	2.1	0.7	6.6	Vero	10.0	1.5	03/17/87
	YFV	3.2	1.07	2.3	Vero	10.0	14.0	03/18/87
	YFV	3.3	1.1	0.96	Vero	3.2	3.3	03/19/87
	YFV	3.9	1.3	0.52	Vero	3.2	6.2	03/19/87
	JE	2.58	0.86	2.7	Vero	10.0	3.7	03/25/87
	JE	2.88	0.96	2.2	Vero	10.0	4.6	03/26/87

	JE	2.4	0.8	1.95	Vero	10.0	5.1	04/01/87
	JE	2.65	0.88	1.04	Vero	3.2	3.09	04/02/87
	SF	2.75	0.92	4.5	Vero	10.0	2.2	12/31/86
	SF	1.95	0.65	3.2	Vero	3.2	1.0	12/31/86
	SF	2.45	0.82	11.0	Vero	3.2	0.3	01/02/87
	SF	2.45	0.82	3.6	Vero	10.0	2.8	01/02/87
	SF	2.95	0.98	1.15	Vero	3.2	2.8	01/05/87
	SF	2.5	0.8	4.2	Vero	10.0	2.4	01/05/87
	SF	2.9	0.97	2.7	Vero	10.0	3.7	01/06/87
	SF	2.45	0.82	2.4	Vero	3.2	1.3	01/06/87
	VV	2.5	0.83	13.8	Vero	10.0	0.7	08/20/86
	Ad	1.5	0.50	9.6	HEp-2	32.0	3.3	10/02/86
	Ad	2.0	0.67	8.1	HEp-2	32.0	4.0	10/16/86
Ribavirin	VEE	2.5	0.83	5.8	Vero	32.0	5.5	05/18/87
	Ad	1.7	0.57	30.0	HEp-2	100.0	3.3	10/02/86
	Ad	1.7	0.57	32.0	HEp-2	100.0	3.1	10/16/86

 VR* = Virus Rating calculated according to the method of Sidwell and Huffman
 (Appl. Microbiol. 22: 797-801, 1971).

UPDATED 06/01/87:ADB

	VSV	0	0	--	L-929	>320.0	--	08/12/86
2120	PT	0	0	--	Vero	320.0	--	01/14/87
	YFV	0	0	--	Vero	100.0	--	03/19/87
	JE	0	0	--	Vero	100.0	--	04/03/87
	SF	0	0	--	Vero	100.0	--	01/02/87
	VV	0	0	--	Vero	100.0	--	08/28/86
	Ad	0	0	--	HEp-2	32.0	--	10/09/86
	VSV	0	0	--	L-929	10.0	--	08/12/86
2121	PT	1.42	0.47	32.1	Vero	100.0	3.1	01/15/87
	YFV	1.0	0.3	127.8	Vero	100.0	0.78	03/19/87
	JE	0.1	0.03	--	Vero	320.0	--	04/03/87
	SF	0.65	0.22	78.3	Vero	100.0	1.3	01/02/87
	VV	0	0	--	Vero	100.0	--	08/28/86
	Ad	0.2	0.07	--	HEp-2	100.0	--	10/09/86
	VSV	0	0	--	L-929	100.0	--	08/12/86
2122	PT	>2.18	>0.73	79.96	Vero	>320.0	>4.0	01/15/87
	YFV	0.5	0.17	--	Vero	100.0	--	03/19/87
	JE	0	0	--	Vero	320.0	--	04/03/87
	SF	>2.8	>0.93	18.2	Vero	>100.0	>5.5	01/02/87
	VV	0.4	0.1	320.0	Vero	100.0	0.3	08/28/86
	Ad	0	0	--	HEp-2	320.0	--	10/09/86
	VSV	0	0	--	L-929	32.0	--	08/12/86
2123	PT	0.1	0.03	--	Vero	320.0	--	01/15/87
	YFV	0	0	--	Vero	320.0	--	03/19/87
	JE	0	0	--	Vero	100.0	--	04/03/87
	SF	0	0	--	Vero	100.0	--	01/07/87
	VV	0.3	0.1	--	Vero	320.0	--	08/28/86
	Ad	>0.3	>0.1	--	HEp-2	>320.0	--	10/09/86
	VSV	0	0	--	L-929	320.0	--	08/12/86
2124	PT	0	0	--	Vero	>320.0	--	01/15/87
	YFV	0	0	--	Vero	320.0	--	03/19/87
	JE	>0.05	>0.017	--	Vero	>320.0	--	04/03/87
	SF	0	0	--	Vero	10.0	--	01/07/87
	VV	0	0	--	Vero	320.0	--	08/28/86
	Ad	0	0	--	HEp-2	>320.0	--	10/09/86
	VSV	0	0	--	L-929	32.0	--	08/12/86
2125	PT	0	0	--	Vero	32.0	--	01/15/87
	YFV	0.5	0.17	27.3	Vero	10.0	0.37	03/19/87
	JE	0	0	--	Vero	32.0	--	04/03/87
	SF	0.6	0.2	29.8	Vero	10.0	0.3	01/07/87
	VV	0	0	--	Vero	100.0	--	08/28/86
	Ad	0	0	--	HEp-2	10.0	--	10/09/86
	VSV	0	0	--	L-929	10.0	--	08/12/86
2126	PT	0.15	0.05	--	Vero	32.0	--	02/13/87
	PT	0.95	0.31	0.87	Vero	3.2	3.66	03/17/87
	YFV	0.5	0.17	--	Vero	32.0	--	03/20/87
	JE	0	0	--	Vero	100.0	--	04/03/87
	SF	0	0	--	Vero	100.0	--	01/07/87
	VV	0	0	--	Vero	>320.0	--	08/28/86
	Ad	0	0	--	HEp-2	320.0	--	10/09/86
	VSV	0	0	--	L-929	32.0	--	08/12/86
2127	PT	2.3	0.77	79.8	Vero	100.0	1.25	02/13/87

	PT	0.78	0.26	--	Vero	10.0	--	03/17/87
	YFV	0.85	0.28	57.4	Vero	10.0	0.17	03/20/87
	JE	0	0	--	Vero	100.0	--	04/03/87
	SF	0.6	0.2	93.2	Vero	100.0	1.07	01/07/87
	VV	0.4	0.1	100.0	Vero	100.0	1.0	08/28/86
	Ad	0.2	0.07	--	HEp-2	32.0	--	10/09/86
	VSV	1.0	0.3	23.4	L-929	100.0	4.3	08/15/86
2128	PT	0.98	0.33	4.69	Vero	10.0	2.1	02/13/87
	PT	0.13	0.04	--	Vero	10.0	--	03/17/87
	YFV	0.35	0.12	--	Vero	10.0	--	03/20/87
	JE	0.1	0.03	--	Vero	10.0	--	04/03/87
	SF	0.6	0.2	7.5	Vero	3.2	0.4	01/05/87
	VV	0.6	0.2	--	Vero	10.0	--	08/28/86
	Ad	0.8	0.3	10.0	HEp-2	32.0	3.2	10/09/86
	VSV	0.4	0.1	31.0	L-929	32.0	1.0	08/15/86
2129	PT	>1.95	>0.65	--	Vero	>320.0	--	02/13/87
	PT	>0.9	>0.3	--	Vero	>320.0	--	03/17/87
	YFV	0	0	--	Vero	>320.0	--	03/20/87
	JE	0	0	--	Vero	>320.0	--	04/03/87
	SF	0.25	0.08	240.5	Vero	100.0	0.4	01/05/87
	VV	0	0	--	Vero	>320.0	--	08/28/86
	Ad	0	0	--	HEp-2	100.0	--	10/09/86
	VSV	0	0	--	L-929	320.0	--	08/15/86
2130	PT	>1.65	>0.55	--	Vero	>320.0	--	02/13/87
	PT	>0.35	>0.12	--	Vero	>320.0	--	03/17/87
	YFV	0	0	--	Vero	320.0	--	03/20/87
	JE	0	0	--	Vero	>320.0	--	04/03/87
	SF	0	0	--	Vero	10.1	--	01/05/87
	VV	0	0	--	Vero	>320.0	--	08/28/86
	Ad	0	0	--	HEp-2	>320.0	--	10/09/86
	VSV	0	0	--	L-929	>320.0	--	08/15/86
2131	PT	>0.58	>0.19	--	Vero	>320.0	--	01/20/87
	YFV	0	0	--	Vero	>320.0	--	03/20/87
	JE	0	0	--	Vero	320.0	--	04/10/87
	SF	0	0	--	Vero	32.0	--	01/05/87
	VV	0	0	--	Vero	>320.0	--	08/28/86
	Ad	>0.3	>0.1	--	HEp-2	>320.0	--	10/09/86
	VSV	0	0	--	L-929	>320.0	--	08/15/86
2132	PT	0.67	0.22	103.0	Vero	100.0	0.97	01/20/87
	YFV	0.5	0.17	--	Vero	32.0	--	03/20/87
	JE	0.4	0.13	96.9	Vero	100.0	1.03	04/10/87
	SF	0.3	0.1	32.0	Vero	10.0	0.3	01/05/87
	VV	0.5	0.2	100.0	Vero	100.0	1.0	08/28/86
	Ad	0	0	--	HEp-2	320.0	--	10/09/86
	VSV	0	0	--	L-929	320.0	--	08/15/86
2133	PT	1.18	0.39	67.5	Vero	100.0	1.5	01/20/87
	YFV	1.75	0.58	37.2	Vero	10.0	0.27	03/20/87
	JE	0.15	0.05	--	Vero	32.0	--	04/10/87
	SF	0	0	--	Vero	32.0	--	01/08/87
	VV	0	0	--	Vero	>320.0	--	08/28/86
	VV	0.1	0.03	--	Vero	100.0	--	10/23/86
	Ad	0	0	--	HEp-2	100.0	--	10/23/86
	VSV	0	0	--	L-929	100.0	--	08/15/86

2134	PT	>0.08	>0.027	--	Vero	>320.0	--	01/20/87
	YFV	0.1	0.03	--	Vero	32.0	--	03/25/87
	JE	0.1	0.03	--	Vero	100.0	--	04/10/87
	SF	0	0	--	Vero	100.0	--	01/08/87
	VV	0	0	--	Vero	>320.0	--	08/28/86
	Ad	0	0	--	HEp-2	>320.0	--	10/09/86
	VSV	0	0	--	L-929	320.0	--	08/15/86
2147	PT	>0.08	>0.027	--	Vero	>320.0	--	01/20/87
	YFV	0	0	--	Vero	10.0	--	03/25/87
	JE	0	0	--	Vero	100.0	--	04/10/87
	SF	0	0	--	Vero	32.0	--	01/08/87
	VV	0	0	--	Vero	>320.0	--	08/28/86
	Ad	0	0	--	HEp-2	320.0	--	10/09/86
	VSV	0	0	--	L-929	100.0	--	08/15/86
2148	PT	0	0	--	Vero	100.0	--	01/21/87
	YFV	0.1	0.03	--	Vero	32.0	--	03/25/87
	JE	0	0	--	Vero	<100.0	--	04/13/87
	SF	0.6	0.2	--	Vero	10.0	--	01/08/87
	VV	0	0	--	Vero	100.0	--	08/28/86
	Ad	0	0	--	HEp-2	32.0	--	10/09/86
	VSV	0	0	--	L-929	100.0	--	08/15/86
2150	PT	0.05	0.017	--	Vero	100.0	--	01/21/87
	YFV	0.15	0.05	--	Vero	10.0	--	03/25/87
	JE	0.2	0.07	--	Vero	100.0	--	04/13/87
	SF	0	0	--	Vero	100.0	--	01/08/87
	VV	0.3	0.1	--	Vero	100.0	--	08/28/86
	Ad	0	0	--	HEp-2	100.0	--	10/09/86
	VSV	0	0	--	L-929	100.0	--	08/15/86
2152	PT	>0.2	>0.067	--	Vero	>320.0	--	01/21/87
	YFV	0.1	0.03	--	Vero	32.0	--	03/25/87
	JE	0	0	--	Vero	100.0	--	04/13/87
	SF	0	0	--	Vero	32.0	--	01/15/87
	VV	0	0	--	Vero	100.0	--	08/28/86
	Ad	0	0	--	HEp-2	>320.0	--	10/09/86
	VSV	0	0	--	L-929	100.0	--	08/15/86
C-3-deaza-								
Adc	VSV	2.1	0.7	3.1	L-929	10.0	3.2	08/12/86
	VSV	3.3	1.1	3.1	L-929	32.0	10.3	08/15/86
Ara-A	VV	2.1	0.7	9.1	Vero	32.0	3.5	08/28/86
	VV	2.5	0.8	5.7	Vero	10.0	1.7	10/23/86
Selenazole	PT	1.05	0.35	18.2	Vero	3.2	0.2	01/13/87
	PT	0.85	0.28	47.7	Vero	10.0	0.2	01/14/87
	PT	0.82	0.27	12.0	Vero	10.0	0.8	01/15/87
	PT	1.6	0.53	9.36	Vero	3.2	0.3	01/20/87
	PT	1.3	0.43	19.2	Vero	3.2	0.2	01/21/87
	PT	2.05	0.68	6.9	Vero	10.0	1.4	02/13/87
	PT	0.95	0.32	5.8	Vero	3.2	0.55	03/17/87
	YFV	3.2	1.07	2.28	Vero	10.0	14.0	03/18/87
	YFV	3.3	1.1	0.96	Vero	3.2	3.3	03/19/87
	YFV	3.9	1.3	0.5	Vero	3.2	6.2	03/19/87
	YFV	3.0	1.0	1.13	Vero	3.2	2.8	03/20/87
	YFV	2.5	0.83	1.8	Vero	3.2	1.8	03/25/87

	JE	2.65	0.88	1.04	Vero	3.2	3.09	04/02/87
	JE	2.9	0.97	2.01	Vero	10.0	4.98	04/03/87
	JE	4.5	1.5	0.43	Vero	10.0	23.2	04/10/87
	JE	3.0	1.0	0.94	Vero	10.0	10.7	04/13/87
	SF	2.75	0.92	4.49	Vero	10.0	2.2	12/31/86
	SF	1.95	0.65	3.2	Vero	3.2	1.0	12/31/86
	SF	2.45	0.82	11.0	Vero	3.2	0.3	01/02/87
	SF	2.45	0.82	3.6	Vero	10.0	2.8	01/02/87
	SF	2.95	0.98	1.15	Vero	3.2	2.8	01/05/87
	SF	2.5	0.83	4.2	Vero	10.0	2.4	01/05/87
	SF	1.85	0.62	5.7	Vero	10.0	1.8	01/07/87
	SF	1.99	0.67	7.6	Vero	10.0	1.3	01/07/87
	SF	1.55	0.52	9.7	Vero	10.0	1.0	01/08/87
	SF	1.75	0.58	9.4	Vero	10.0	1.1	01/08/87
	SF	2.05	0.68	6.68	Vero	10.0	1.5	01/15/87
	VV	2.7	0.9	6.3	Vero	10.0	1.6	08/28/86
	VV	2.5	0.8	7.5	Vero	10.0	1.3	10/23/86
	Ad	1.4	0.5	9.6	HEp-2	32.0	3.3	10/09/86
	Ad	1.3	0.4	9.7	HEp-2	32.0	3.3	10/23/86
Ribavirin	Ad	1.9	0.6	30.7	HEp-2	100.0	3.3	10/09/86
	Ad	1.9	0.6	30.7	HEp-2	100.0	3.2	10/23/86

 VR* = Virus Rating calculated according to the method of Sidwell and
 Huffman (Appl. Microbiol. 22: 797-801, 1971).

UPDATED 05/04/87:ADE

SHIPMENT NO. 8

AVS NO.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
2145	PT	0	0	--	Verc	>320.0	--	01/28/87
	YFV	0	0	--	Verc	<320.0	--	03/27/87
	JE	>0.4	>0.13	--	Verc	>320.0	--	05/11/87
	SF							
	VV	0	0	--	Verc	>320.0	--	10/16/86
	Ad	0	0	--	HEp-2	>320.0	--	10/16/86
	VSV	0	0	--	L929	>320.0	--	08/29/86
2146	PT	0	0	--	Verc	320.0	--	01/28/87
	YFV	0	0	--	Verc	>320.0	--	03/27/87
	JE	>0.5	>0.17	--	Verc	>320.0	--	05/11/87
	SF	>0.1	>0.03	--	Verc	>100.0	--	01/12/87
	VV	0	0	--	Verc	>320.0	--	10/16/86
	Ad	0	0	--	HEp-2	>320.0	--	10/16/86
	VSV	0	0	--	L929	>320.0	--	08/29/86
2163	PT	0.15	0.05	--	Verc	100.0	--	01/21/87
	YFV	0.5	0.17	31.5	Verc	10.0	0.32	03/25/87
	JE	0	0	--	Verc	32.0	--	04/13/87
	SF	0	0	--	Verc	32.0	--	01/07/87
	VV	>0.3	>0.1	--	Verc	>320.0	--	10/23/86
	Ad	0	0	--	HEp-2	>320.0	--	10/23/86
	VSV	0	0	--	L929	32.0	--	08/29/86
2164	PT	0	0	--	Verc	>320.0	--	01/21/87
	YFV	0.15	0.05	--	Verc	10.0	--	03/25/87
	JE	0.1	0.03	--	Verc	32.0	--	04/13/87
	SF	0.75	0.25	--	Verc	100.0	--	01/07/87
	VV	0	0	--	Verc	>320.0	--	10/23/86
	Ad	0	0	--	HEp-2	1.0	--	10/23/86
	VSV	0	0	--	L929	32.0	--	08/29/86
2165	PT	>0.04	>0.013	--	Verc	>320.0	--	01/22/87
	YFV	0.25	0.08	--	Verc	320.0	--	05/13/87
	JE	0	0	--	Verc	<320.0	--	04/13/87
	SF	0.85	0.28	--	Verc	32.0	--	01/07/87
	VV	0	0	--	Verc	100.0	--	10/16/86
	Ad	0	0	--	HEp-2	320.0	--	10/16/86
	VSV	0	0	--	L929	100.0	--	08/29/86
2166	PT	0	0	--	Verc	<32.0	--	01/22/87
	YFV	0	0	--	Verc	32.0	--	05/13/87
	JE	0	0	--	Verc	<32.0	--	04/14/87
	SF	1.2	0.4	193.9	Verc	10.0	0.05	01/07/87
	VV	0.5	0.2	--	Verc	10.0	--	10/16/86
	Ad	0	0	--	HEp-2	10.0	--	10/16/86
	VSV	0	0	--	L929	1.0	--	08/29/86
2167	PT	0	0	--	Verc	<320.0	--	01/22/87
	YFV	0.2	0.07	--	Verc	32.0	--	03/25/87
	JE	0	0	--	Verc	100.0	--	04/14/87
	SF	0.8	0.3	--	Verc	10.0	--	01/07/87
	VV	0.6	0.2	87.7	Verc	100.0	1.1	10/23/86
	Ad	0.3	0.1	--	HEp-2	320.0	--	10/23/86

	VSV	0	0	--	L929	32.0	--	08/29/86
2168	PT	0.05	0.02	--	Vero	320.0	--	01/22/87
	YFV	0.1	0.03	--	Vero	32.0	--	03/25/87
	JE	0.05	0.02	--	Vero	320.0	--	04/14/87
	SF	0.5	0.17	--	Vero	100.0	--	01/07/87
	VV	0	0	--	Vero	100.0	--	10/23/86
	Ad	0	0	--	HEp-2	100.0	--	10/23/86
	VSV	0	0	--	L929	100.0	--	08/29/86
2169	PT	0	0	--	Vero	>320.0	--	01/22/87
	YFV	0	0	--	Vero	10.32	--	03/26/87
	JE	0.2	0.07	--	Vero	100.0	--	04/14/87
	SF	0.5	0.17	--	Vero	10.0	--	01/07/87
	VV	>0.4	>0.1	--	Vero	>320.0	--	10/16/86
	Ad	0	0	--	HEp-2	>320.0	--	10/16/86
	VSV	0	0	--	L929	100.0	--	09/05/86
2170	PT	0	0	--	Vero	10.0	--	01/23/87
	YFV	0.15	0.05	--	Vero	1.0	--	03/26/87
	JE	0	0	--	Vero	32.0	--	04/14/87
	SF	0.5	0.17	299.3	Vero	<10.0	0.03	01/07/87
	VV	4.7	1.6	1.3	Vero	10.0	7.7	10/16/86
	Ad	0.5	0.2	--	HEp-2	32.0	--	10/16/86
	VSV	0	0	--	L929	3.2	--	09/05/86
2171	PT	>0.2	>0.07	--	Vero	>320.0	--	01/23/87
	YFV	0	0	--	Vero	>320.0	--	03/26/87
	JE	>0.3	>0.1	--	Vero	>320.0	--	04/14/87
	SF	0	0	--	Vero	>100.0	--	01/08/87
	VV	0	0	--	Vero	>320.0	--	10/16/86
	Ad	0	0	--	HEp-2	>320.0	--	10/16/86
	VSV	0	0	--	L929	320.0	--	09/05/86
2172	PT	0	0	--	Vero	10.0	--	01/23/87
	YFV	0	0	--	Vero	1.0	--	03/26/87
	JE	0	0	--	Vero	<32.0	--	04/15/87
	SF	0	0	--	Vero	10.0	--	01/08/87
	VV	0	0	--	Vero	32.0	--	10/23/86
	Ad	0	0	--	HEp-2	32.0	--	10/23/86
	VSV	0	0	--	L929	10.0	--	09/05/86
2173	PT	1.18	0.39	15.7	Vero	10.0	0.64	01/23/87
	YFV	0.2	0.07	--	Vero	10.0	--	03/26/87
	JE	0	0	--	Vero	32.0	--	04/15/87
	SF	0.45	0.15	--	Vero	32.0	--	01/08/87
	VV	0.5	0.2	100	Vero	32.0	0.3	10/23/86
	Ad	1.1	0.4	27.3	HEp-2	100.0	3.6	10/23/86
	VSV	0	0	--	L929	32.0	--	09/05/86
2174	PT	1.59	0.53	57.1	Vero	100.0	1.75	01/23/87
	YFV	0.3	0.1	--	Vero	10.0	--	03/26/87
	JE	1.75	0.58	41.8	Vero	10.0	0.24	04/15/87
	SF	0	0	--	Vero	100.0	--	01/08/87
	VV	0.6	0.2	100	Vero	100.0	1.0	10/16/86
	Ad	0	0	--	HEp-2	320.0	--	10/16/86
	VSV	0	0	--	L929	100.0	--	09/05/86
2175	PT	0.125	0.04	119.2	Vero	32.0	0.3	01/26/87
	YFV	0	0	--	Vero	10.0	--	03/26/87

	JE	0	0	--	Vero	32.0	--	04/15/87
	SF	0	0	--	Vero	(100.0	--	01/08/87
	VV	0.2	0.07	--	Vero	100.0	--	10/23/86
	Ad	0.1	0.03	--	HEp-2	32.0	--	10/23/86
	VSV	0	0	--	L929	32.0	--	09/05/86
2176	PT	>0.9	>0.3	147.4	Vero	>320.0	2.17	01/26/87
	YFV	>0.7	>0.23	--	Vero	>320.0	--	03/26/87
	JE	0.55	0.18	261.5	Vero	320.0	1.2	04/15/87
	SF	0	0	--	Vero	>100.0	--	01/08/87
	VV	0.2	0.07	--	Vero	100.0	--	10/16/86
	Ad	0	0	--	HEp-2	320.0	--	10/16/86
	VSV	0	0	--	L929	320.0	--	09/05/86
2177	PT	>0.2	>0.07	--	Vero	>320.0	--	01/26/87
	YFV	0	0	--	Vero	320.0	--	03/26/87
	JE	0	0	--	Vero	>320.0	--	04/15/87
	SF	0	0	--	Vero	>100.0	--	01/08/87
	VV	0	0	--	Vero	>320.0	--	10/16/86
	Ad	>0.5	>0.2	--	HEp-2	>320.0	--	10/16/86
	VSV	0	0	--	L929	320.0	--	09/05/86
2178	PT	0.1	0.03	--	Vero	100.0	--	01/26/87
	YFV	0.15	0.05	--	Vero	10.0	--	03/26/87
	JE	0	0	--	Vero	32.0	--	04/16/87
	SF	0.4	0.14	--	Vero	100.0	--	01/08/87
	VV	0.6	0.2	93.9	Vero	32.0	0.3	10/23/86
	Ad	0	0	--	HEp-2	100.0	--	10/23/86
	VSV	0	0	--	L929	10.0	--	09/05/86
2179	PT	0.05	0.02	--	Vero	320.0	--	01/26/87
	YFV	0.35	0.12	314.9	Vero	320.0	1.0	03/26/87
	JE	0	0	--	Vero	320.0	--	04/16/87
	SF	0.1	0.03	--	Vero	32.0	--	01/10/87
	VV	>0.3	>0.1	--	Vero	>320.0	--	10/16/86
	Ad	>0.3	>0.1	--	HEp-2	>320.0	--	10/16/86
	VSV	0	0	--	L929	32.0	--	09/05/86
2180	PT	0	0	--	Vero	(320.0	--	01/27/87
	YFV	0.7	0.23	88.0	Vero	10.0	0.1	03/27/87
	JE	0	0	--	Vero	100.0	--	04/16/87
	SF	0.5	0.17	--	Vero	(10.0	--	01/10/87
	VV	0.05	0.02	--	Vero	10.0	--	10/16/86
	Ad	0	0	--	HEp-2	0.32	--	10/16/86
	VSV	0	0	--	L929	1.0	--	09/05/86
2181	PT	0.15	0.05	--	Vero	32.0	--	01/27/87
	YFV	0	0	--	Vero	>320.0	--	03/27/87
	JE	>0.2	>0.07	--	Vero	>320.0	--	04/16/87
	SF	0.09	0.03	--	Vero	32.0	--	01/10/87
	VV	0	0	--	Vero	100.0	--	10/23/86
	Ad	0	0	--	HEp-2	100.0	--	10/23/86
	VSV	0	0	--	L929	10.32	--	09/05/86
2182	PT	0.15	0.05	--	Vero	320.0	--	01/27/87
	YFV	0.5	0.17	--	Vero	100.0	--	03/27/87
	JE	0.1	0.03	--	Vero	320.0	--	04/16/87
	SF	>0.1	>0.03	--	Vero	>100.0	--	01/10/87
	VV	0	0	--	Vero	>320.0	--	10/23/86
	Ad	>0.2	>0.07	--	HEp-2	>320.0	--	10/23/86

	VSV	0	0	--	L929	100.0	--	09/05/86
2183	PT	0	0	--	Vero	>320.0	--	01/27/87
	YFV	0	0	--	Vero	10.0	--	03/27/87
	JE	0	0	--	Vero	>320.0	--	04/16/87
	SF	0	0	--	Vero	100.0	--	01/10/87
2184	PT	0.15	0.05	--	Vero	100.0	--	01/27/87
	YFV	0	0	--	Vero	100.0	--	03/27/87
	JE	0	0	--	Vero	320.0	--	05/11/87
	SF	>0.2	>0.07	--	Vero	>100.0	--	01/10/87
	VV	0.9	0.3	210	Vero	320.0	1.5	10/16/86
	Ad	0.3	0.1	--	HEp-2	320.0	--	10/16/86
	VSV	0	0	--	L929	100.0	--	09/05/86
2185	PT	0	0	--	Vero	100.0	--	01/28/87
	YFV	0	0	--	Vero	100.0	--	03/27/87
	JE	0.7	0.23	98.8	Vero	10.0	0.10	05/11/87
	SF	0.2	0.07	--	Vero	10.0	--	01/10/87
	SF	0	0	--	Vero	100.0	--	01/12/87
	VV	0	0	--	Vero	320.0	--	10/16/86
	Ad	0.5	0.2	--	HEp-2	0.32	--	11/06/86
	VSV	0	0	--	L929	32.0	--	09/05/86
2186	PT	0	0	--	Vero	320.0	--	01/28/87
	YFV	0	0	--	Vero	100.0	--	03/27/87
	JE	0	0	--	Vero	>320.0	--	05/11/87
	SF	0.1	0.03	--	Vero	32.0	--	01/10/87
	VV	0	0	--	Vero	>320.0	--	10/23/86
	Ad	>0.3	>0.1	--	HEp-2	>320.0	--	10/23/86
	VSV	0	0	--	L929	>320.0	--	09/05/86
2187	PT	0	0	--	Vero	10.0	--	01/28/87
	YFV	0	0	--	Vero	10.0	--	03/27/87
	JE	0	0	--	Vero	<10.0	--	05/11/87
	SF	0	0	--	Vero	10.0	--	01/12/87
	VV	0.4	0.1	--	Vero	10.0	--	10/16/86
	Ad	0.4	0.1	10.0	HEp-2	10.0	1.0	10/16/86
	VSV	0	0	--	L929	10.0	--	09/05/86
C-3-Deaza-								
Ado	VSV	1.8	0.6	8.6	L929	3.2	0.4	08/29/86
	VSV	2.0	0.7	3.2	L929	3.2	1.0	09/05/86
Ribavirin	YFV	0.8	0.27	73.4	Vero	100.0	1.4	05/13/87
	Ad	1.7	0.6	32.0	HEp-2	100.0	3.1	10/16/86
	Ad	1.9	0.7	30.7	HEp-2	100.0	3.2	10/23/86
	Ad	1.9	0.7	19.7	HEp-2	100.0	5.1	11/06/86
Selenazole	PT	1.3	0.43	19.2	Vero	3.2	0.17	01/21/87
	PT	0.52	0.17	30.0	Vero	10.0	0.33	01/22/87
	PT	1.05	0.35	13.3	Vero	10.0	0.75	01/23/87
	PT	1.52	0.51	6.37	Vero	10.0	1.57	01/26/87
	PT	1.1	0.37	18.6	Vero	10.0	0.54	01/27/87
	PT	1.35	0.45	10.0	Vero	3.2	0.32	01/28/87
	YFV	2.5	0.83	1.8	Vero	3.2	1.8	03/25/87
	YFV	3.1	1.03	1.6	Vero	10.0	6.2	03/26/87
	YFV	3.6	1.2	0.57	Vero	3.2	5.7	03/27/87

	JE	3.0	1.0	0.94	Vero	10.0	10.7	04/13/87
	JE	3.37	1.12	0.95	Vero	10.0	10.6	04/14/87
	JE	3.3	1.1	1.2	Vero	10.0	8.2	04/15/87
	JE	3.44	1.15	0.83	Vero	10.0	12.0	04/16/87
	JE	1.95	0.65	1.9	Vero	3.2	1.7	05/11/87
	SF	1.85	0.62	5.7	Vero	10.0	1.8	01/07/87
	SF	1.99	0.67	7.6	Vero	10.0	1.3	01/07/87
	SF	2.45	0.82	4.1	Vero	3.2	0.78	01/10/87
	SF	1.8	0.6	6.3	Vero	10.0	1.6	01/12/87
	SF	1.3	0.43	18.3	Vero	10.0	0.55	01/12/87
	VV	2.5	0.8	7.5	Vero	10.0	1.3	10/23/86
	Ad	2.0	0.7	8.1	HEp-2	32.0	4.0	10/16/86
	Ad	1.3	0.4	9.7	HEp-2	32.0	3.3	10/23/86
	Ad	1.6	0.5	7.2	HEp-2	32.0	4.4	11/06/86
Ara-A	VV	2.5	0.8	5.7	Vero	10.0	1.7	10/23/86

 VR* = Virus Rating calculated according to the method of Sidwell and Huffman
 (Appl. Microbiol. 22: 797 - 801, 1971).

UPDATED 05/25/87:ADR

Shipment No. 9

AVS NO.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
890	PT	>0.5	>0.2	--	Vero	>320.0	--	11/07/86
1052	PT	0.2	0.1	--	Vero	320.0	--	11/07/86
2024	PT	0	0	--	Vero	<0.32	--	08/06/87
	YFV	0	0	--	Vero	<0.32	--	08/04/87
2025	PT	0	0	--	Vero	<0.32	--	08/06/87
	YFV	0	0	--	Vero	<0.32	--	08/05/87
	SF	0	0	--	Vero	<0.32	--	08/05/87
2026	PT	1.8	0.6	17.3	Vero	100.0	5.8	11/07/86
	YFV	0	0	--	Vero	100.0	--	08/07/87
	JE	0.05	0.02	--	Vero	32.0	--	07/28/87
	SF	0.85	0.28	100.0	Vero	32.0	0.32	08/07/87
2027	PT	0.4	0.1	--	Vero	32.0	--	11/10/86
	YFV	0	0	--	Vero	1.0	--	08/05/87
	JE	0	0	--	Vero	<100.0	--	08/05/87
	SF	0	0	--	Vero	1.0	--	08/05/87
2028	PT	1.2	0.4	--	Vero	100.0	--	11/10/86
	YFV	0.22	0.07	--	Vero	10.0	--	08/05/87
	JE	0	0	--	Vero	50.0	--	08/05/87
	SF	0.1	0.03	--	Vero	10.0	--	08/05/87
2029	PT	0.3	0.1	--	Vero	3.2	--	11/10/86
	YFV	0	0	--	Vero	0.1	--	08/05/87
	JE	0	0	--	Vero	10.0	--	08/05/87
	SF	0	0	--	Vero	3.2	--	08/05/87
2030	PT	>1.0	>0.3	--	Vero	>100.0	--	11/10/86
	YFV	0.1	0.03	--	Vero	10.0	--	08/05/87
	JE	0	0	--	Vero	<160.0	--	08/05/87
	SF	0	0	--	Vero	10.0	--	08/05/87
2031	PT	0.1	0	--	Vero	0.32	--	11/10/86
	YFV	0	0	--	Vero	0.032	--	08/06/87
	JE	0	0	--	Vero	10.0	--	08/06/87
	SF	0.4	0.13	0.24	Vero	0.032	0.13	08/06/87
2032	PT	0	0	--	Vero	1.0	--	11/05/86
	YFV	0	0	--	Vero	<0.001	--	08/06/87
	JE	0	0	--	Vero	3.2	--	08/06/87
	SF	0	0	--	Vero	0.032	--	08/06/87
2033	PT	0.3	0.1	--	Vero	1.0	--	11/05/86
2034	PT	2.1	0.7	6.8	Vero	10.0	1.5	11/05/86
	VEE							
	YFV	0.85	0.28	0.54	Vero	0.32	0.6	08/07/87
	SF	0.25	0.08	--	Vero	0.32	--	08/07/87
2035	PT	0.2	0.1	--	Vero	0.1	--	11/05/86
	YFV	0	0	--	Vero	0.1	--	08/06/87
	JE	0	0	--	Vero	10.0	--	08/06/87

	SF	0.25	0.08	--	Vera	0.01	--	08/06/87
2036	PT	0.4	0.1	--	Vera	10.0	--	11/05/86
	YFV	0	0	--	Vera	3.2	--	08/06/87
	JE	0	0	--	Vera	100.0	--	08/06/87
	SF	0.8	0.27	--	Vera	1.0	--	08/06/87
2037	PT	0.3	0.1	--	Vera	1.0	--	11/12/86
	YFV	0	0	--	Vera	0.32	--	08/07/87
	JE	0	0	--	Vera	>320.0	--	08/07/87
	SF	0	0	--	Vera	0.32	--	08/07/87
2038	PT	0.6	0.2	--	Vera	10.0	--	11/12/86
	YFV	0	0	--	Vera	1.0	--	08/07/87
	JE	0	0	--	Vera	320.0	--	08/07/87
	SF	0	0	--	Vera	1.0	--	08/07/87
2159	PT	0.4	0.1	--	Vera	10.0	--	11/12/86
	YFV	>0.9	>0.3	--	Vera	>100.0	--	02/04/87
	JE	0	0	--	Vera	>320.0	--	04/20/87
	SF	>3.8	>1.3	<0.32	Vera	>320.0	>1000.0	10/31/86
	VV	0	0	--	Vera	>320.0	--	10/23/86
	Ad	>0.5	>0.2	--	HEP-2	>320.0	--	10/23/86
	VSV	0.4	0.1	--	L929	100.0	--	09/19/86
2160	PT	0.5	0.2	--	Vera	10.0	--	11/12/86
	YFV	0.85	0.28	3.8	Vera	1.0	0.1	02/04/87
	JE	0	0	--	Vera	10.0	--	04/20/87
	SF	3.1	1.0	<0.32	Vera	32.0	>100.0	10/31/86
	SF	1.7	0.57	3.27	Vera	1.0	0.31	07/27/87
	VV	0.2	0.07	--	Vera	32.0	--	10/23/86
	Ad	0.3	0.1	32.0	HEP-2	32.0	1.0	10/23/86
	VSV	0	0	--	L929	100.0	--	09/19/86
2161	PT	>0.4	>0.1	--	Vera	>100.0	--	11/12/86
	YFV	0.02	0.01	37.4	Vera	32.0	0.85	02/04/87
	JE	0	0	--	Vera	32.0	--	04/20/87
	SF	1.8	0.6	--	Vera	100.0	--	10/31/86
	VV	1.2	0.4	47.3	Vera	32.0	0.7	10/23/86
	Ad	0.4	0.1	--	HEP-2	100.0	--	10/23/86
	VSV	0	0	--	L929	32.0	--	09/19/86
2162	PT	>1.3	>0.4	--	Vera	>100.0	--	11/12/86
	YFV	0	0	--	Vera	32.0	--	02/04/87
	JE	0	0	--	Vera	<100.0	--	04/20/87
	SF	2.6	0.9	2.1	Vera	320.0	--	10/31/86
	VV	0.6	0.2	100.0	Vera	320.0	3.2	10/23/86
	Ad	0	0	--	HEP-2	320.0	--	10/23/86
	VSV	0	0	--	L929	100.0	--	09/19/86
2188	PT	0.2	0.1	--	Vera	10.0	--	11/12/86
	YFV	0	0	--	Vera	3.2	--	02/04/87
	JE	0	0	--	Vera	<32.0	--	04/20/87
	SF	2.6	0.9	<0.32	Vera	32.0	100.0	10/31/86
	SF	0.25	0.08	--	Vera	1.00	--	08/18/87
	VV	0.5	0.2	--	Vera	3.2	--	10/23/86
	Ad	0	0	--	HEP-2	3.2	--	10/23/86
	VSV	0.5	0.2	--	L929	100.0	--	09/19/86
2189	PT	>0.2	>0.07	--	Vera	>100.0	--	11/12/86

	YFV	0.35	0.12	120.0	Vero	100.0	0.83	02/04/87
	JE	0	0	--	Vero	320.0	--	04/20/87
	SF	0.4	0.1	--	Vero	100.0	--	11/04/86
	SF	0.2	0.07	--	Vero	10.0	--	11/20/86
	VV	0	0	--	Vero	320.0	--	10/23/86
	Ad	0	0	--	HEp-2	3.2	--	10/23/86
	VSV	0	0	--	L929	32.0	--	09/19/86
2190	PT	0.3	0.1	--	Vero	32.0	--	11/12/86
	YFV	0	0	--	Vero	32.0	--	02/04/87
	JE	0	0	--	Vero	320.0	--	04/20/87
	SF	0.2	0.1	--	Vero	320.0	--	11/04/86
	VV	0.1	0.03	--	Vero	100.0	--	10/23/86
	Ad	0	0	--	HEp-2	32.0	--	10/23/86
	VSV	0	0	--	L929	100.0	--	09/19/86
2191	PT	0.4	0.1	--	Vero	32.0	--	11/12/86
	YFV	0	0	--	Vero	3.2	--	02/04/87
	JE	0	0	--	Vero	10.0	--	04/20/87
	SF	0.4	0.1	--	Vero	32.0	--	11/04/86
	VV	0.5	0.2	--	Vero	10.0	--	10/23/86
	Ad	0	0	--	HEp-2	1.0	--	10/23/86
	VSV	0	0	--	L929	3.2	--	09/19/86
2192	PT	0	0	--	Vero	32.0	--	11/17/86
	YFV	0.25	0.08	--	Vero	100.0	--	02/04/87
	JE	0.2	0.07	--	Vero	320.0	--	04/20/87
	SF	0	0	--	Vero	100.0	--	11/04/86
	VV	0	0	--	Vero	100.0	--	10/30/86
	Ad	0	0	--	HEp-2	100.0	--	10/30/86
	VSV	0	0	--	L929	10.0	--	09/19/86
2193	PT	0	0	--	Vero	1.0	--	11/17/86
	YFV	0.65	0.22	24.6	Vero	10.0	0.4	02/04/87
	JE	0.1	0.03	--	Vero	10.0	--	04/20/87
	SF	0	0	--	Vero	32.0	--	11/04/86
	VV	0.2	0.07	--	Vero	100.0	--	10/30/86
	Ad	0	0	--	HEp-2	32.0	--	10/30/86
	VSV	0	0	--	L929	3.2	--	09/19/86
2194	PT	0	0	--	Vero	320.0	--	11/17/86
	YFV	0.09	0.03	--	Vero	320.0	--	02/05/87
	JE	0	0	--	Vero	320.0	--	04/21/87
	VV	0	0	--	Vero	320.0	--	10/23/86
	Ad	0	0	--	HEp-2	320.0	--	10/23/86
	VSV	0	0	--	L929	320.0	--	09/19/86
2195	PT	0	0	--	Vero	32.0	--	11/17/86
	YFV	0.15	0.05	--	Vero	32.0	--	02/05/87
	JE	0.05	0.02	--	Vero	320.0	--	04/21/87
	VV	0	0	--	Vero	320.0	--	10/30/86
	Ad	0	0	--	HEp-2	320.0	--	10/30/86
	VSV	0	0	--	L929	32.0	--	09/19/86
2196	PT	0	0	--	Vero	100.0	--	11/17/86
	YFV	0	0	--	Vero	100.0	--	02/05/87
	JE	0	0	--	Vero	320.0	--	04/21/87
	VV	0	0	--	Vero	320.0	--	10/30/86
	Ad	0	0	--	HEp-2	32.0	--	10/30/86
	VSV	0	0	--	L929	320.0	--	09/19/86

2197	PT	0.1	0.03	--	Vero	100.0	--	11/19/86
	YFV	0	0	--	Vero	>100.0	--	03/06/87
	JE	0.35	0.12	314.9	Vero	100.0	0.32	04/21/87
	VV	0	0	--	Vero	>320.0	--	10/30/86
	Ad	0	0	--	HEp-2	32.0	--	10/30/86
	VSV	0	0	--	L929	100.0	--	09/19/86
2198	PT	>0.9	>0.3	--	Vero	>100.0	--	11/19/86
	YFV	0.3	0.1	98.1	Vero	32.0	0.3	02/05/87
	JE	0	0	--	Vero	320.0	--	04/21/87
	VV	0.2	0.07	--	Vero	320.0	--	10/30/86
	Ad	0.4	0.1	--	HEp-2	320.0	--	10/30/86
	VSV	0	0	--	L929	32.0	--	09/19/86
2199	PT	0.2	0.08	--	Vero	32.0	--	11/19/86
	YFV	0	0	--	Vero	>100.0	--	03/06/87
	JE	0.075	0.025	--	Vero	320.0	--	04/21/87
	VV	0.4	0.1	271.0	Vero	100.0	0.4	10/30/86
	Ad	0	0	--	HEp-2	320.0	--	10/30/86
	VSV	0	0	--	L929	320.0	--	09/19/86
2200	PT	>0.3	>0.1	--	Vero	>320.0	--	11/19/86
	YFV	0	0	--	Vero	32.0	--	02/05/87
	JE	0	0	--	Vero	>320.0	--	04/21/87
	VV	0	0	--	Vero	>320.0	--	10/30/86
	Ad	0	0	--	HEp-2	>320.0	--	10/30/86
	VSV	0	0	--	L929	320.0	--	09/19/86
2201	PT	0.3	0.1	--	Vero	10.0	--	11/19/86
	YFV	0	0	--	Vero	32.0	--	02/05/87
	JE	0.525	0.175	64.4	Vero	100.0	1.55	04/21/87
	VV	0	0	--	Vero	>320.0	--	10/30/86
	Ad	0.3	0.1	320.0	HEp-2	320.0	1.0	10/30/86
	VSV	0	0	--	L929	10.0	--	09/19/86
2202	PT	0.05	0.02	--	Vero	100.0	--	11/19/86
	YFV	0	0	--	Vero	32.0	--	02/05/87
	JE	0	0	--	Vero	320.0	--	04/21/87
	VV	0.1	0.03	--	Vero	320.0	--	10/30/86
	Ad	0	0	--	HEp-2	320.0	--	10/30/86
	VSV	0	0	--	L929	320.0	--	09/19/86
2203	PT	0	0	--	Vero	32.0	--	11/19/86
	YFV	1.8	0.6	18.7	Vero	32.0	1.7	02/05/87
	JE	0	0	--	Vero	32.0	--	04/21/87
	SF	0.3	0.1	--	Vero	32.0	--	11/05/86
	VV	0	0	--	Vero	100.0	--	10/30/86
	Ad	0	0	--	HEp-2	320.0	--	10/30/86
VSV	0	0	--	L929	100.0	--	09/19/86	
2204	PT	0	0	--	Vero	32.0	--	11/19/86
	YFV	0.09	0.03	--	Vero	32.0	--	02/06/87
	JE	0.09	0.03	--	Vero	<100.0	--	04/21/87
	SF	0.3	0.1	--	Vero	320.0	--	11/05/86
	VV	0	0	--	Vero	100.0	--	10/30/86
	Ad	0.2	0.07	--	Vero	100.0	--	10/30/86
VSV	0	0	--	L929	320.0	--	09/19/86	
2205	PT	0.1	0.3	--	Vero	320.0	--	11/19/86

	YFV	0.17	0.06	--	Vero	320.0	--	02/06/87
	JE	0	0	--	Vero	10.0	--	04/22/87
	SF	0	0	--	Vero	320.0	--	11/05/86
	VV	0	0	--	Vero	320.0	--	10/30/86
	Ad	0	0	--	HEp-2	320.0	--	10/30/86
	VSV	0	0	--	L929	32.0	--	09/19/86
2206	PT	0	0	--	Vero	32.0	--	11/19/86
	YFV	0.3	0.1	100.0	Vero	1.0	0.01	02/06/87
	JE	0	0	--	Vero	100.0	--	04/22/87
	SF	0	0	--	Vero	32.0	--	11/05/86
	VV	0	0	--	Vero	320.0	--	10/30/86
	Ad	0	0	--	HEp-2	1.0	--	10/30/86
	VSV	0	0	--	L929	32.0	--	09/19/86
2207	PT	0.43	0.14	96.0	Vero	100.0	1.0	11/18/86
	YFV	0	0	--	Vero	>320.0	--	02/03/87
	JE	>0.05	>0.02	--	Vero	>320.0	--	04/22/87
2208	PT	0.1	0.03	--	Vero	32.0	--	11/18/86
	YFV	0.45	0.15	95.8	Vero	10.0	0.1	02/06/87
	JE	0.05	0.02	--	Vero	100.0	--	04/22/87
	SF	0	0	--	Vero	100.0	--	11/05/86
	VV	0.3	0.1	320.0	Vero	100.0	0.3	10/30/86
	Ad	0	0	--	HEp-2	100.0	--	10/30/86
	VSV	0	0	--	L929	100.0	--	09/19/86
Ara-A	VV	2.5	0.8	5.7	Vero	10.0	1.7	10/23/86
	VV	2.4	0.8	3.2	Vero	10.0	3.1	10/30/86
Ribavirin	PT	2.4	0.8	33.9	Vero	100.0	2.9	11/07/86
	PT	>2.4	>0.8	9.2	Vero	>100.0	>10.9	11/07/86
	PT	>2.6	>0.7	18.5	Vero	>100.0	>5.4	11/05/86
	PT	>2.8	>0.9	32.9	Vero	>100.0	>3.0	11/10/86
	PT	>2.7	>0.9	22.2	Vero	>100.0	>4.5	11/12/86
	PT	>1.8	>0.6	23.9	Vero	>100.0	>4.2	11/12/86
	PT	1.4	0.5	23.9	Vero	32.0	1.3	11/17/86
	PT	2.1	0.7	22.2	Vero	100.0	4.5	11/18/86
	PT	1.3	0.4	26.0	Vero	32.0	1.2	11/18/86
	PT	1.2	0.4	25.0	Vero	32.0	1.3	11/19/86
	PT	1.8	0.6	20.3	Vero	32.0	1.6	11/19/86
	PT	1.64	0.55	36.66	Vero	100.0	2.7	08/06/87
	SF	>3.4	>1.1	3.2	Vero	>100.0	>31.3	10/31/86
	SF	>2.6	>0.9	8.9	Vero	>100.0	>11.2	11/04/86
	SF	>3.0	>1.0	9.8	Vero	>100.0	>10.2	11/04/86
	SF	>2.9	>1.0	14.4	Vero	>100.0	>6.9	11/05/86
	SF	>2.5	>0.8	24.1	Vero	>100.0	>30.1	11/05/86
	SF	>2.9	>0.97	14.4	Vero	>100.0	>6.9	11/20/86
	SF	>3.55	>1.18	5.25	Vero	>100.0	>19.03	07/27/87
	SF	2.1	0.7	7.79	Vero	32.0	4.11	08/05/87
	SF	3.7	1.23	3.78	Vero	100.0	26.5	08/06/87
	SF	3.1	1.03	5.06	Vero	100.0	19.78	08/07/87
	SF	3.2	1.07	5.05	Vero	100.0	19.81	08/18/87
	Ad	1.9	0.6	30.7	HEp-2	100.0	3.2	10/23/86
	Ad	1.2	0.4	26.2	HEp-2	32.0	1.2	10/30/86
Selenazole	YFV	2.0	0.67	12.9	Vero	10.0	0.78	02/03/87
	YFV	3.2	1.07	1.38	Vero	3.2	2.3	02/04/87

YFV	2.55	0.85	1.77	Vero	3.2	1.8	02/04/87
YFV	2.25	0.75	0.96	Vero	3.2	3.3	02/05/87
YFV	2.1	0.7	1.7	Vero	3.2	1.9	02/05/87
YFV	2.1	0.7	3.03	Vero	3.2	1.05	02/06/87
YFV	2.25	0.75	3.03	Vero	3.2	1.05	02/06/87
YFV	2.9	0.97	2.00	Vero	10.0	4.98	03/06/87
YFV	2.65	0.88	1.18	Vero	1.0	0.85	08/04/87
YFV	2.32	0.77	1.7	Vero	1.0	0.57	08/05/87
YFV	2.5	0.83	1.7	Vero	3.2	1.89	08/06/87
YFV	2.4	0.8	1.79	Vero	3.2	1.79	08/07/87
JE	2.8	0.83	1.07	Vero	3.2	2.98	04/20/87
JE	3.4	1.13	0.62	Vero	3.2	5.2	04/21/87
JE	3.1	1.03	0.8	Vero	3.2	3.96	04/22/87
JE	2.7	0.9	1.5	Vero	3.2	2.09	07/28/87
JE	2.85	0.95	1.16	Vero	3.2	2.77	08/05/87
JE	2.39	0.8	2.4	Vero	3.2	1.32	08/06/87
JE	2.4	0.8	1.03	Vero	3.2	3.11	08/07/87
VV	2.5	0.8	7.5	Vero	10.0	1.3	10/23/86
VV	2.2	0.7	17.4	Vero	10.0	0.6	10/30/86
Ad	1.3	0.4	9.7	HEp-2	32.0	3.3	10/23/86
Ad	1.4	0.5	50.7	HEp-2	32.0	0.6	10/30/86

C-3-Deaza-

Adc	VSV	2.0	0.7	6.9	L929	3.2	0.5	09/19/86
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VR* = Virus Rating calculated according to the method of Sidwell and Huffman (Appl. Microbiol. 22: 797-801, 1971).

UPDATED 08/31/87:ADE

SHIPMENT NO. 10

AVS NO.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
2209	PT	0.1	0.03	--	Vero	320.0	--	11/20/86
	YFV	0.25	0.083	--	Vero	32.0	--	02/06/87
	JE	0	0	--	Vero	320.0	--	04/22/87
	SF	0.1	0.03	--	Vero	10.32	--	11/06/86
	SF	0.15	0.05	--	Vero	100.0	--	11/20/86
	VV	0	0	--	Vero	320.0	--	10/30/86
	Ad	0	0	--	HEp-2	100.0	--	10/30/86
VSV	0	0	--	L929	32.0	--	10/03/86	
2210	PT	0.1	0.03	--	Vero	32.0	--	11/20/86
	YFV	0	0	--	Vero	3.2	--	02/06/87
	JE	0.55	0.18	93.9	Vero	100.0	1.06	04/22/87
	SF	1.0	0.3	--	Vero	32.0	--	11/06/86
	VV	0	0	--	Vero	100.0	--	10/30/86
	Ad	0	0	--	HEp-2	0.1	--	11/13/86
	VSV	0	0	--	L929	32.0	--	10/03/86
2211	PT	0.1	0.03	--	Vero	32.0	--	11/20/86
	YFV	0	0	--	Vero	10.0	--	02/06/87
	JE	0	0	--	Vero	32.0	--	04/22/87
	SF	0	0	--	Vero	32.0	--	11/20/86
	VV	0.5	0.2	--	Vero	32.0	--	11/20/86
	Ad	0.1	0.03	--	HEp-2	10.0	--	11/20/86
	VSV	0	0	--	L929	0.32	--	10/03/86
2212	PT	0.3	0.1	--	Vero	32.0	--	11/20/86
	YFV	0.35	0.12	--	Vero	10.0	--	02/06/87
	JE	0	0	--	Vero	32.0	--	04/22/87
	SF	0.15	0.05	--	Vero	10.0	--	11/20/86
	VV	0	0	--	Vero	10.0	--	11/06/86
	Ad	0	0	--	HEp-2	10.0	--	11/06/86
	VSV	0	0	--	L929	32.0	--	10/03/86
2213	PT	0.1	0.03	--	Vero	32.0	--	11/20/86
	YFV	0.05	0.02	--	Vero	3.2	--	02/06/87
	JE	0	0	--	Vero	32.0	--	04/22/87
	SF	0	0	--	Vero	32.0	--	11/20/86
	VV	0.2	0.07	--	Vero	100.0	--	11/06/86
	Ad	0.8	0.3	--	HEp-2	320.0	--	11/06/86
	VSV	0	0	--	L929	100.0	--	10/03/86
2214	PT	0.05	0.017	--	Vero	10.0	--	12/22/86
	YFV	0.45	0.15	8.68	Vero	10.0	1.2	02/09/87
	JE	0	0	--	Vero	10.0	--	04/22/87
	SF	1.4	0.5	--	Vero	10.0	--	11/10/86
	VV	0.2	0.07	--	Vero	10.0	--	11/06/86
	Ad	0.2	0.07	--	HEp-2	32.0	--	11/06/86
	VSV	0	0	--	L929	10.0	--	10/03/86
2215	PT	0.35	0.12	291.0	Vero	100.0	0.3	12/22/86
	YFV	0	0	--	Vero	320.0	--	02/09/87
	JE	0.375	0.125	311.1	Vero	320.0	1.03	04/22/87
	SF	1.3	0.4	--	Vero	320.0	--	11/10/86
	VV	0	0	--	Vero	320.0	--	11/06/86

	Ad	0	0	--	HEp-2	320.0	--	11/06/86
	VSV	0	0	--	L929	320.0	--	10/03/86
2216	PT	0.275	0.09	--	Vero	320.0	--	12/22/86
	YFV	0	0	--	Vero	320.0	--	02/09/87
	JE	0.1	0.03	--	Vero	320.0	--	04/23/87
	SF	1.2	0.4	173.0	Vero	100.0	0.6	11/10/86
	VV	0.4	0.1	--	Vero	320.0	--	11/06/86
	Ad	0	0	--	HEp-2	100.0	--	11/06/86
	VSV	0	0	--	L929	100.0	--	10/03/86
2217	PT	0.1	0.03	--	Vero	10.0	--	11/21/86
	YFV	0	0	--	Vero	3.2	--	02/09/87
	JE	0.35	0.12	9.8	Vero	10.0	1.02	04/23/87
	SF	1.3	0.4	1.9	Vero	3.2	1.7	11/12/86
	VV	0.4	0.1	--	Vero	32.0	--	11/06/86
	Ad	0	0	--	HEp-2	32.0	--	11/06/86
	VSV	0	0	--	L929	10.0	--	10/03/86
2218	PT	0.4	0.1	--	Vero	3.2	--	11/21/86
	YFV	0	0	--	Vero	1.0	--	02/09/87
	JE	0.5	0.17	--	Vero	3.2	--	04/23/87
	SF	1.0	0.3	7.2	Vero	3.2	0.4	11/12/86
	VV	0.9	0.3	21.1	Vero	32.0	1.5	11/06/86
	Ad	0.2	0.07	--	HEp-2	10.0	--	11/06/86
	VSV	0	0	--	L929	32.0	--	10/03/86
2219	PT	0.2	0.07	--	Vero	32.0	--	11/21/86
	YFV	0.65	0.22	77.1	Vero	32.0	0.42	02/09/87
	JE	1.78	0.59	8.54	Vero	32.0	3.75	04/23/87
	SF	2.5	0.8	2.5	Vero	32.0	12.8	11/12/86
	SF	1.05	0.35	8.28	Vero	3.2	0.39	07/28/87
	VV	0.8	0.3	78.4	Vero	100.0	1.3	11/06/86
	Ad	0.2	0.07	--	HEp-2	32.0	--	11/06/86
	VSV	0	0	--	L929	100.0	--	10/03/86
2220	PT	0.3	0.1	--	Vero	32.0	--	11/21/86
	YFV	0.05	0.02	--	Vero	10.0	--	02/09/87
	JE	0.45	0.15	--	Vero	100.0	--	04/23/87
	SF	3.2	1.1	10.32	Vero	32.0	2100.0	11/12/86
	SF	0.25	0.08	--	Vero	10.0	--	12/02/86
	SF	1.0	0.33	26.41	Vero	10.0	0.38	07/27/87
	VV	0.2	0.07	--	Vero	100.0	--	11/06/86
	Ad	0	0	--	HEp-2	100.0	--	11/06/86
	VSV	0	0	--	L929	100.0	--	10/03/86
2221	PT	0	0	--	Vero	3.2	--	11/21/86
	YFV	0	0	--	Vero	3.2	--	02/09/87
	JE	0.45	0.15	3.01	Vero	1.0	0.33	04/23/87
	SF	1.2	0.4	1.8	Vero	3.2	1.8	11/12/86
	SF	0.15	0.05	--	Vero	3.2	--	12/02/86
	VV	0.6	0.2	29.8	Vero	32.0	1.1	11/06/86
	Ad	0	0	--	HEp-2	10.0	--	11/06/86
	VSV	0	0	--	L929	10.0	--	10/03/86
2222	PT	0	0	--	Vero	32.0	--	11/20/86
	YFV	0	0	--	Vero	32.0	--	02/09/87
	JE	0.5	0.17	--	Vero	32.0	--	04/23/87
	SF	0.6	0.2	10.4	Vero	10.0	1.0	11/13/86
	VV	1.0	0.3	36.9	Vero	100.0	1.0	11/06/86

	Ad	0	0	--	HEP-2	100.0	--	11/06/86
	VSV	0	0	--	L929	32.0	--	10/03/86
2223	PT	0.1	0.03	--	Vero	100.0	--	11/20/86
	YFV	0	0	--	Vero	100.0	--	02/09/87
	JE	0.1	0.03	--	Vero	320.0	--	04/23/87
	SF	1.1	0.4	79.8	Vero	100.0	1.3	11/13/86
	VV	0	0	--	Vero	100.0	--	11/06/86
	Ad	0	0	--	HEP-2	100.0	--	11/06/86
	VSV	0	0	--	L929	100.0	--	10/03/86
2224	PT	1.5	0.5	30.7	Vero	100.0	3.3	11/20/86
	YFV	1.55	0.52	15.7	Vero	32.0	2.0	02/09/87
	JE	1.65	0.55	8.8	Vero	10.0	1.14	04/23/87
	SF	0.1	0.03	--	Vero	32.0	--	11/13/86
	VV	0	0	--	Vero	32.0	--	11/06/86
	Ad	0	0	--	HEP-2	100.0	--	11/06/86
	VSV	0	0	--	L929	1.0	--	10/03/86
2225	PT	0.2	0.07	--	Vero	10.0	--	11/20/86
	YFV	0	0	--	Vero	3.2	--	02/10/87
	JE	0	0	--	Vero	3.2	--	04/23/87
	SF	1.0	0.3	--	Vero	3.2	--	11/13/86
	VV	0.6	0.2	10.0	Vero	10.0	1.0	11/06/86
	Ad	0	0	--	HEP-2	3.2	--	11/06/86
	VSV	0	0	--	L929	32.0	--	10/03/86
2226	PT	0.1	0.03	--	Vero	32.0	--	11/20/86
	YFV	0	0	--	Vero	32.0	--	02/10/87
	JE	0.2	0.07	--	Vero	10.0	--	04/23/87
	SF	1.4	0.5	8.8	Vero	32.0	3.6	11/13/86
	VV	0.3	0.1	--	Vero	32.0	--	11/06/86
	Ad	0.2	0.07	--	HEP-2	100.0	--	11/06/86
	VSV	0	0	--	L929	32.0	--	10/03/86
2227	PT	0	0	--	Vero	32.0	--	11/21/86
	YFV	0	0	--	Vero	3.2	--	02/10/87
	JE	0	0	--	Vero	10.0	--	04/24/87
	SF	0	0	--	Vero	10.0	--	11/13/86
	VV	0.2	0.07	--	Vero	3.2	--	11/06/86
	Ad	0	0	--	HEP-2	10.0	--	11/06/86
	VSV	0	0	--	L929	10.0	--	10/03/86
2228	PT	0	0	--	Vero	100.0	--	11/21/86
	YFV	0	0	--	Vero	10.0	--	02/10/87
	JE	0	0	--	Vero	10.0	--	04/24/87
	SF	1.3	0.4	17.4	Vero	10.0	0.6	11/13/86
	VV	0.3	0.1	32.0	Vero	10.0	0.3	11/06/86
	Ad	0	0	--	HEP-2	3.2	--	11/06/86
	VSV	0	0	--	L929	32.0	--	10/03/86
2229	PT	0.1	0.03	--	Vero	320.0	--	11/21/86
	YFV	0.3	0.1	--	Vero	3.2	--	02/10/87
	JE	0	0	--	Vero	100.0	--	04/24/87
	SF	0	0	--	Vero	100.0	--	11/13/86
	VV	0.2	0.07	--	Vero	32.0	--	11/06/86
	Ad	1.0	0.3	28.0	HEP-2	100.0	3.6	11/06/86
	VSV	0	0	--	L929	32.0	--	10/03/86
2230	PT	>1.7	>0.6	177.8	Vero	>320.0	>1.8	11/21/86

	YFV	0.3	0.1	320.0	Vero	320.0	1.0	02/10/87
	JE	0	0	--	Vero	100.0	--	04/24/87
	SF	0	0	--	Vero	320.0	--	11/13/86
	VV	0	0	--	Vero	320.0	--	11/06/86
	Ad	0	0	--	HEp-2	100.0	--	11/06/86
	VSV	0	0	--	L929	100.0	--	10/03/86
2231	PT	0.6	0.2	--	Vero	100.0	--	11/21/86
	YFV	0.35	0.12	259.9	Vero	32.0	0.12	02/10/87
	JE	0	0	--	Vero	32.0	--	04/24/87
	SF	0.7	0.2	--	Vero	32.0	--	11/13/86
	VV	0.9	0.3	210.0	Vero	320.0	1.5	11/06/86
	Ad	0.3	0.1	--	HEp-2	320.0	--	11/06/86
	VSV	0	0	--	L929	100.0	--	10/03/86
2232	PT	1.1	0.4	--	Vero	100.0	--	11/24/86
	YFV	0.25	0.08	238.0	Vero	100.0	0.4	02/10/87
	JE	0	0	--	Vero	100.0	--	04/24/87
	SF	0	0	--	Vero	320.0	--	11/17/86
	VV	0.5	0.2	--	Vero	320.0	--	11/06/86
	Ad	0.3	0.1	--	HEp-2	100.0	--	11/06/86
	VSV	0	0	--	L929	32.0	--	10/03/86
2233	PT	1.2	0.4	--	Vero	100.0	--	11/24/86
	YFV	0	0	--	Vero	100.0	--	02/10/87
	JE	0	0	--	Vero	320.0	--	04/24/87
	SF	0	0	--	Vero	100.0	--	11/17/86
	VV	0.3	0.1	--	Vero	320.0	--	11/06/86
	Ad	0	0	--	HEp-2	100.0	--	11/06/86
	VSV	0	0	--	L929	100.0	--	10/03/86
2234	PT	1.1	0.4	2.6	Vero	3.2	1.2	11/24/86
	YFV	0	0	--	Vero	10.0	--	02/10/87
	JE	0	0	--	Vero	<10.0	--	04/24/87
	SF	0.35	0.12	12.0	Vero	10.0	0.83	11/17/86
	VV	0	0	--	Vero	32.0	--	11/06/86
	Ad	0.5	0.2	--	HEp-2	32.0	--	11/06/86
	VSV	0	0	--	L929	10.0	--	10/03/86
2235	PT	0.7	0.2	--	Vero	3.2	--	11/24/86
	YFV	0.2	0.07	--	Vero	1.0	--	02/10/87
	JE	0	0	--	Vero	32.0	--	04/24/87
	SF	0.95	0.32	2.9	Vero	100.0	2.3	11/17/86
	VV	1.4	0.5	37.3	Vero	32.0	0.9	11/06/86
	Ad	0	0	--	HEp-2	10.0	--	11/06/86
	VSV	0	0	--	L929	32.0	--	10/03/86
2236	PT	1.5	0.5	--	Vero	100.0	--	11/24/86
	YFV	0	0	--	Vero	32.0	--	03/24/87
	JE	0	0	--	Vero	100.0	--	04/24/87
	SF	0	0	--	Vero	>320.0	--	11/17/86
	VV	0	0	--	Vero	>320.0	--	11/06/86
	Ad	0	0	--	HEp-2	>320.0	--	11/06/86
	VSV	0	0	--	L929	32.0	--	10/03/86
C-3-deaza- Adc	VSV	2.8	0.9	3.1	L929	32.0	10.3	10/03/86
Ara-A	VV	2.4	0.8	3.2	Vero	10.0	3.1	10/30/86
	VV	3.3	1.1	2.7	Vero	32.0	11.9	11/06/86

	VV	3.0	1.0	5.7	Vero	32.0	5.6	11/20/86	
Ribavirin	PT	2.0	0.7	12.9	Vero	100.0	7.8	11/20/86	
	PT	1.9	0.6	23.1	Vero	100.0	4.3	11/20/86	
	PT	>2.2	>0.7	30.3	Vero	>100.0	>3.3	11/20/86	
	PT	>2.1	>0.7	25.4	Vero	>100.0	>3.9	11/21/86	
	PT	2.0	0.7	24.1	Vero	100.0	4.1	11/21/86	
	PT	3.0	1.0	2.2	Vero	100.0	45.5	11/24/86	
	SF	>3.1	>1.0	14.4	Vero	>100.0	>6.9	11/06/86	
	SF	>4.4	>1.5	2.3	Vero	>100.0	>43.5	11/10/86	
	SF	>3.4	>1.1	14.1	Vero	>100.0	>7.1	11/12/86	
	SF	>4.0	>1.3	0.92	Vero	>100.0	>109.0	11/12/86	
	SF	>4.0	>1.3	6.1	Vero	>100.0	>16.4	11/13/86	
	SF	>4.4	>1.5	2.9	Vero	>100.0	>34.5	11/13/86	
	SF	>3.0	>1.0	10.0	Vero	>100.0	>10.0	11/13/86	
	SF	>2.4	>0.8	18.2	Vero	>100.0	>5.5	11/17/86	
	SF	>2.9	>0.97	14.4	Vero	>100.0	>6.9	11/20/86	
	SF	>3.55	>1.18	5.25	Vero	>100.0	>19.03	07/27/87	
	SF	3.49	1.16	1.95	Vero	32.0	16.45	07/28/87	
		Ad	1.2	0.4	26.2	HEp-2	32.0	1.2	10/30/86
		Ad	1.9	0.6	19.7	HEp-2	100.0	5.1	11/06/86
	Ad	1.9	0.6	25.5	HEp-2	100.0	3.9	11/13/86	
	Ad	1.7	0.6	23.9	HEp-2	100.0	4.2	11/20/86	
Selenazole	PT	1.8	0.6	7.79	Vero	3.2	0.41	12/22/86	
	YFV	2.25	0.75	3.03	Vero	3.2	1.05	02/06/87	
	YFV	2.4	0.8	4.06	Vero	10.0	2.46	02/09/87	
	YFV	2.5	0.83	3.15	Vero	10.0	3.2	02/10/87	
	YFV	3.3	1.1	2.1	Vero	10.0	4.8	03/24/87	
	JE	3.1	1.03	0.8	Vero	3.2	3.96	04/22/87	
	JE	2.95	0.98	1.05	Vero	3.2	3.03	04/23/87	
	JE	2.6	0.87	1.6	Vero	3.2	2.01	04/24/87	
	SF	3.35	1.12	1.3	Vero	10.0	7.6	12/02/86	
	SF	2.4	0.8	9.32	Vero	32.0	3.4	12/02/86	
	SF	1.8	0.6	6.3	Vero	10.0	1.6	12/02/86	
	VV	2.2	0.7	17.4	Vero	10.0	0.6	10/30/86	
	VV	2.7	0.9	7.6	Vero	10.0	1.3	11/06/86	
	VV	2.7	0.9	5.9	Vero	3.2	0.5	11/20/86	
	Ad	1.4	0.5	50.7	HEp-2	32.0	0.6	10/30/86	
	Ad	1.5	0.5	7.2	HEp-2	32.0	4.4	11/06/86	
	Ad	0.9	0.3	32.0	HEp-2	10.0	0.3	11/13/86	
	Ad	1.5	0.5	8.0	HEp-2	32.0	4.0	11/20/86	

VR* = Virus Rating calculated according to the method of Sidwell and Huffmar (Appl. Microbiol. 22: 797-801, 1971).

UPDATED 08/10/87:ADB

SHIPMENT NO. 11

AVS NO.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
2276	PT	0.9	0.3	--	Vero	100.0	--	11/25/86
	YFV	0	0	--	Vero	10.0	--	03/24/87
	JE	0	0	--	Vero	(100.0	--	04/27/87
	SF	0	0	--	Vero	32.0	--	11/18/86
	VV	0.3	0.1	--	Vero	320.0	--	11/13/86
	Ad	0.2	0.07	--	HEP-2	320.0	--	11/13/86
	VSV	0	0	--	L929	100.0	--	10/24/86
2277	PT	1.0	0.3	29.8	Vero	32.0	1.1	11/12/86
	YFV	0	0	--	Vero	3.2	--	03/24/87
	JE	0	0	--	Vero	100.0	--	04/27/87
	SF	1.4	0.47	20.3	Vero	32.0	1.6	11/18/86
	VV	0.9	0.3	217.0	Vero	320.0	1.5	11/13/86
	Ad	1.1	0.4	100.0	HEP-2	320.0	3.2	11/13/86
	VSV	0	0	--	L929	320.0	--	10/24/86
2278	PT	0	0	--	Vero	100.0	--	11/25/86
	YFV	0	0	--	Vero	(32.0	--	03/24/87
	JE	0	0	--	Vero	(10.0	--	04/27/87
	SF	0	0	--	Vero	100.0	--	11/18/86
	VV	>0.4	>0.1	--	Vero	>320.0	--	11/13/86
	Ad	0.1	0.03	--	HEP-2	320.0	--	11/13/86
	VSV	0	0	--	L929	320.0	--	10/24/86
2279	PT	1.4	0.5	3.2	Vero	32.0	10.1	11/25/86
	YFV	0.3	0.1	--	Vero	10.0	--	03/24/87
	JE	0	0	--	Vero	(32.0	--	04/27/87
	SF	0.35	0.12	38.5	Vero	32.0	0.83	11/18/86
	VV	0.2	0.07	--	Vero	32.0	--	11/13/86
	Ad	0.7	0.2	10.0	HEP-2	32.0	3.2	11/13/86
	VSV	0	0	--	L929	32.0	--	10/24/86
2280	PT	0.2	0.05	--	Vero	100.0	--	11/25/86
	YFV	0	0	--	Vero	32.0	--	03/24/87
	JE	0	0	--	Vero	(320.0	--	04/27/87
	SF	0	0	--	Vero	320.0	--	11/18/86
	VV	0	0	--	Vero	>320.0	--	11/13/86
	Ad	>0.6	>0.2	--	HEP-2	>320.0	--	11/13/86
	VSV	0	0	--	L929	320.0	--	10/24/86
2281	PT	>0.4	>0.1	--	Vero	>320.0	--	11/26/86
	YFV	0	0	--	Vero	320.0	--	03/24/87
	JE	0	0	--	Vero	320.0	--	04/27/87
	SF	0	0	--	Vero	>320.0	--	11/19/86
	VV	0	0	--	Vero	>320.0	--	11/13/86
	Ad	>0.6	>0.2	--	HEP-2	>320.0	--	11/13/86
	VSV	0	0	--	L929	320.0	--	10/24/86
2282	PT	0.6	0.2	78.2	Vero	100.0	1.3	11/26/86
	YFV	0.15	0.05	--	Vero	32.0	--	03/24/87
	JE	0	0	--	Vero	100.0	--	04/27/87
	SF	0.7	0.23	100.2	Vero	320.0	3.2	11/19/86

	VV	0.2	0.07	--	Vero	320.0	--	11/13/86
	Ad	0.2	0.07	--	HEP-2	320.0	--	11/13/86
	VSV	0.5	0.2	307.0	L929	320.0	1.0	10/24/86
2283	PT	0.5	0.2	--	Vero	100.0	--	11/26/86
	YFV	0	0	--	Vero	32.0	--	03/24/87
	JE	0	0	--	Vero	32.0	--	04/27/87
	SF	1.3	0.43	--	Vero	100.0	--	11/19/86
	VV	0	0	--	Vero	320.0	--	11/13/86
	Ad	0.6	0.2	--	HEP-2	320.0	--	11/13/86
	VSV	0	0	--	L929	320.0	--	10/24/86
2284	PT	>0.95	>0.32	--	Vero	>320.0	--	11/26/86
	YFV	0	0	--	Vero	100.0	--	03/24/87
	JE	0	0	--	Vero	320.0	--	04/27/87
	SF	>0.5	>0.17	504.3	Vero	>320.0	0.63	11/19/86
	VV	>0.2	>0.07	--	Vero	>320.0	--	11/13/86
	Ad	0	0	--	HEP-2	320.0	--	11/13/86
	VSV	0	0	--	L929	320.0	--	10/24/86
2285	PT	0.7	0.2	--	Vero	320.0	--	11/26/86
	YFV	0.4	0.13	--	Vero	100.0	--	03/24/87
	JE	0	0	--	Vero	100.0	--	04/27/87
	SF	1.85	0.62	96.7	Vero	320.0	3.3	11/19/86
	VV	>0.5	>0.2	--	Vero	>320.0	--	11/13/86
	Ad	>0.6	>0.2	--	HEP-2	>320.0	--	11/13/86
	VSV	0	0	--	L929	100.0	--	10/24/86
2286	PT	0.6	0.2	--	Vero	100.0	--	12/01/86
	YFV	0.05	0.02	--	Vero	32.0	--	02/12/87
	JE	0	0	--	Vero	<10.0	--	04/27/87
	SF	0.65	0.22	120.9	Vero	100.0	0.83	11/20/86
	VV	0	0	--	Vero	320.0	--	11/13/86
	Ad	0	0	--	HEP-2	100.0	--	11/13/86
	VSV	0	0	--	L929	320.0	--	10/24/86
2287	PT	0.3	0.1	--	Vero	100.0	--	12/01/86
	YFV	0	0	--	Vero	320.0	--	02/12/87
	JE	0	0	--	Vero	<32.0	--	04/27/87
	SF	0.1	0.03	--	Vero	32.0	--	11/20/86
	VV	0.1	0.03	--	Vero	320.0	--	11/13/86
	Ad	0	0	--	HEP-2	100.0	--	11/13/86
	VSV	0	0	--	L929	32.0	--	10/24/86
2288	PT	0.4	0.13	--	Vero	100.0	--	12/01/86
	YFV	0	0	--	Vero	10.0	--	02/12/87
	JE	0	0	--	Vero	<100.0	--	04/28/87
	SF	0	0	--	Vero	100.0	--	11/20/86
	VV	0	0	--	Vero	320.0	--	11/13/86
	Ad	0.4	0.1	--	HEP-2	100.0	--	11/13/86
	VSV	0	0	--	L929	100.0	--	10/24/86
2289	PT	1.7	0.57	28.6	Vero	32.0	1.1	12/01/86
	YFV	0	0	--	Vero	10.0	--	02/12/87
	JE	0	0	--	Vero	32.0	--	04/28/87
	SF	0.95	0.32	31.4	Vero	32.0	1.0	11/20/86
	VV	0.7	0.2	79.8	Vero	100.0	1.2	11/13/86
	Ad	0.8	0.3	262.0	HEP-2	320.0	1.2	11/13/86
	VSV	0	0	--	L929	320.0	--	10/24/86

2290	PT	3.0	1.0	4.1	Vero	100.0	24.2	12/01/86
	PT	0.8	0.3	133.7	Vero	100.0	0.75	08/21/87
	PT	1.7	0.57	80.4	Vero	100.0	1.24	09/21/87
	YFV	0.15	0.05	--	Vero	100.0	--	02/12/87
	JE	0.4	0.13	--	Vero	320.0	--	05/20/87
	SF	1.25	0.42	29.2	Vero	100.0	3.4	11/20/86
	VV	3.2	1.1	5.7	Vero	32.0	5.6	11/13/86
	Ad	1.0	0.3	25.4	HEp-2	32.0	1.3	11/13/86
	VSV	0	0	--	L929	100.0	--	10/24/86
2291	PT	0.2	0.07	--	Vero	10.0	--	12/02/86
	PT	1.7	0.57	8.1	Vero	32.0	3.95	12/22/86
	YFV	0.05	0.02	--	Vero	10.0	--	02/12/87
	JE	0.1	0.03	--	Vero	10.0	--	05/20/87
	SF							
	VV	1.9	0.6	4.7	Vero	10.0	2.1	11/13/86
	Ad	0	0	--	HEp-2	10.0	--	11/13/86
	VSV	0	0	--	L929	10.0	--	10/24/86
2292	PT	0.2	0.07	--	Vero	320.0	--	12/02/86
	PT	1.3	0.43	--	Vero	100.0	--	12/22/86
	YFV	0	0	--	Vero	32.0	--	02/12/87
	JE	0	0	--	Vero	3.2	--	05/20/87
	SF							
	VV	0	0	--	Vero	10.0	--	11/13/86
	Ad	0	0	--	HEp-2	32.0	--	11/13/86
	VSV	0	0	--	L929	32.0	--	10/24/86
2293	PT	1.0	0.33	--	Vero	320.0	--	12/02/86
	YFV	0.1	0.03	--	Vero	100.0	--	02/12/87
	JE	0	0	--	Vero	320.0	--	05/21/87
	SF							
	VV	0	0	--	Vero	320.0	--	11/13/86
	Ad	0	0	--	HEp-2	320.0	--	11/13/86
	VSV	0	0	--	L929	100.0	--	11/04/86
2295	PT	0.7	0.22	--	Vero	10.0	--	12/02/86
	YFV	0	0	--	Vero	3.2	--	02/12/87
	JE	0	0	--	Vero	1.0	--	05/20/87
	SF							
	VV	0	0	--	Vero	3.2	--	11/13/86
	Ad	0.3	0.1	--	HEp-2	10.0	--	11/13/86
	VSV	0	0	--	L929	10.0	--	11/04/86
2296	PT	1.0	0.33	91.3	Vero	100.0	1.1	12/02/86
	YFV	0.15	0.05	--	Vero	10.0	--	02/12/87
	JE	0.2	0.07	--	Vero	32.0	--	04/28/87
	SF							
	VV	0.2	0.07	--	Vero	100.0	--	12/04/86
	Ad	1.2	0.4	11.0	HEp-2	32.0	2.9	12/04/86
	VSV	0	0	--	L929	10.0	--	11/04/86
2297	PT	0	0	--	Vero	10.0	--	12/04/86
	YFV	0	0	--	Vero	3.2	--	02/12/87
	JE	0.05	0.017	--	Vero	10.0	--	04/28/87
	SF							
	VV	3.3	1.1	5.0	Vero	32.0	6.4	12/04/86
	Ad	0.5	0.17	--	HEp-2	100.0	--	12/04/86
	VSV	0	0	--	L929	100.0	--	11/04/86

2298	PT	0.32	0.11	--	Vero	1.0	--	12/04/86
	YFV	0.19	0.06	--	Vero	10.32	--	02/13/87
	JE	0	0	--	Vero	10.32	--	04/28/87
	SF							
	VV	0.3	0.1	--	Vero	1.0	--	11/13/86
	Ad	0	0	--	HEP-2	1.0	--	11/13/86
	VSV	0	0	--	L929	1.0	--	11/04/86
2299	PT	0	0	--	Vero	0.32	--	12/04/86
	YFV	1.07	0.36	75.2	Vero	10.0	0.13	02/13/87
	JE	0	0	--	Vero	10.0	--	05/21/87
	SF							
	VV	0.2	0.07	--	Vero	32.0	--	11/13/86
	Ad	0.1	0.03	--	HEP-2	10.0	--	11/13/86
	VSV	0	0	--	L929	3.2	--	11/04/86
2301	PT	0.35	0.12	--	Vero	32.0	--	12/04/86
	YFV	1.55	0.52	77.8	Vero	32.0	0.41	02/13/87
	JE	0.05	0.017	--	Vero	32.0	--	05/21/87
	SF							
	VV	0.7	0.2	241.3	Vero	32.0	0.1	11/20/86
	Ad	0.2	0.07	--	HEP-2	32.0	--	11/20/86
	VSV	0	0	--	L929	100.0	--	11/04/86
2302	PT	0	0	--	Vero	1.0	--	12/04/86
	YFV	0	0	--	Vero	1.0	--	02/13/87
	JE	0	0	--	Vero	1.0	--	05/18/87
	SF							
	VV	2.5	0.8	2.6	Vero	3.2	1.2	11/20/86
	Ad	0.4	0.1	--	HEP-2	3.2	--	11/20/86
	VSV	0	0	--	L929	3.2	--	11/04/86
2303	PT	1.55	0.52	133.0	Vero	320.0	2.4	12/05/86
	YFV	0.075	0.02	--	Vero	100.0	--	02/13/87
	JE	0	0	--	Vero	32.0	--	05/18/87
	SF							
	VV	0	0	--	Vero	320.0	--	11/20/86
	Ad	>1.1	>0.4	90.6	HEP-2	>320.0	13.5	11/20/86
	VSV	0	0	--	L929	320.0	--	11/04/86
2304	PT	0.7	0.23	--	Vero	320.0	--	12/05/86
	YFV	0.55	0.18	--	Vero	320.0	--	02/13/87
	JE	0	0	--	Vero	32.0	--	05/18/87
	SF							
	VV	0	0	--	Vero	320.0	--	11/20/86
	Ad	>0.4	>0.1	--	HEP-2	>320.0	--	11/20/86
	VSV	0	0	--	L929	320.0	--	11/04/86
2305	PT	>0.58	>0.19	--	Vero	>320.0	--	12/05/86
	YFV	2.45	0.82	2.72	Vero	100.0	36.7	02/13/87
	YFV	0.15	0.05	--	Vero	100.0	--	05/13/87
	YFV	0.25	0.08	--	Vero	32.0	--	08/19/87
	JE	0	0	--	Vero	100.0	--	05/18/87
	SF							
	VV	0	0	--	Vero	>320.0	--	11/20/86
	Ad	>0.4	>0.1	--	HEP-2	>320.0	--	11/20/86
	VSV	0	0	--	L929	320.0	--	11/04/86
2307	PT	0.34	0.11	--	Vero	100.0	--	12/05/86
	YFV	0.4	0.13	310.1	Vero	32.0	0.1	02/13/87

	JE	0.25	0.08	--	Vero	10.0	--	05/18/87
	SF							
	VV	0	0	--	Vero	100.0	--	11/20/86
	Ad	0	0	--	HEp-2	320.0	--	11/20/86
	VSV	0	0	--	L929	32.0	--	11/04/86
2308	PT	1.1	0.37	93.2	Vero	0.32	0.003	12/05/86
	YFV	0	0	--	Vero	10.32	--	02/13/87
	JE	0	0	--	Vero	10.32	--	05/18/87
	SF							
	VV	1.35	0.45	3.06	Vero	1.0	0.33	03/12/87
	Ad	0	0	--	HEp-2	1.0	--	11/20/86
	VSV	0	0	--	L929	1.0	--	11/04/86
2309	PT	3.25	1.08	8.22	Vero	100.0	12.2	03/02/87
	PT	2.9	0.97	8.93	Vero	320.0	35.8	08/21/87
	YFV	0.95	0.32	81.93	Vero	320.0	3.9	02/13/87
	JE	1.1	0.37	--	Vero	320.0	--	05/21/87
	SF	0.45	0.15	--	Vero	100.0	--	11/18/86
	VV	0	0	--	Vero	>100.0	--	11/20/86
	Ad	0	0	--	HEp-2	>100.0	--	11/20/86
	VSV	0	0	--	L929	3.2	--	11/04/86
2310	PT	1.03	0.34	--	Vero	100.0	--	03/02/87
	YFV	0.2	0.07	--	Vero	100.0	--	02/13/87
	JE	0	0	--	Vero	320.0	--	05/21/87
	SF	0.35	0.12	--	Vero	100.0	--	11/18/86
	VV	0	0	--	Vero	>320.0	--	11/20/86
	Ad	0.1	0.03	--	HEp-2	320.0	--	11/20/86
	VSV	0	0	--	L929	10.0	--	11/04/86
C-3-Deaza-								
Adc	VSV	2.5	0.8	3.2	L929	10.0	3.1	10/24/86
	VSV	2.5	0.8	3.2	L929	10.0	3.1	11/04/86
Ara-A	VV	3.3	1.1	3.7	Vero	32.0	11.8	11/13/86
	VV	3.0	1.0	5.7	Vero	32.0	5.6	11/20/86
	VV	3.1	1.0	5.3	Vero	32.0	6.0	12/04/86
	VV	3.2	1.1	2.6	Vero	32.0	12.3	03/12/87
Selen-								
azole	PT	1.5	0.5	9.1	Vero	10.0	1.1	12/01/86
	PT	1.1	0.37	16.2	Vero	3.2	0.2	12/02/86
	PT	1.54	0.51	5.08	Vero	10.0	1.97	12/04/86
	PT	1.95	0.65	89.8	Vero	3.2	0.04	12/05/86
	PT	1.8	0.6	7.79	Vero	3.2	0.4	12/22/86
	PT	1.78	0.59	7.2	Vero	10.0	1.4	03/02/87
	YFV	2.45	0.82	2.3	Vero	3.2	1.4	02/12/87
	YFV	2.85	0.95	1.06	Vero	3.2	3.0	02/13/87
	YFV	3.3	1.1	2.1	Vero	10.0	4.76	03/24/87
	YFV	1.8	0.61	4.86	Vero	1.0	0.21	08/19/87
	JE	2.6	0.87	1.6	Vero	3.2	2.01	04/24/87
	JE	3.1	1.03	2.1	Vero	10.0	4.71	04/27/87
	JE	2.1	0.7	1.7	Vero	3.2	1.9	04/28/87
	JE	2.25	0.75	2.56	Vero	3.2	1.25	05/21/87
	VV	2.8	0.9	5.9	Vero	3.2	0.5	11/13/86
	VV	2.7	0.9	5.9	Vero	3.2	0.5	11/20/86
	VV	2.5	0.8	15.3	Vero	3.2	0.2	12/04/86

	VV	2.55	0.85	10.5	Vero	10.0	0.95	03/12/87
	Ad	0.9	0.3	32.0	HEp-2	10.0	0.3	11/13/86
	Ad	1.5	0.5	8.0	HEp-2	32.0	4.0	11/20/86
	Ad	1.9	0.6	18.8	HEp-2	32.0	1.7	12/04/86
Ribavirin	PT	1.5	0.5	24.8	Vero	32.0	1.3	11/25/86
	PT	1.8	0.6	28.0	Vero	100.0	3.6	11/26/86
	PT	1.2	0.4	31.7	Vero	100.0	3.2	08/21/87
	PT	1.7	0.6	20.1	Vero	100.0	5.0	09/21/87
	YFV	0.8	0.27	73.4	Vero	100.0	1.4	05/13/87
	JE	1.5	0.5	26.38	Vero	100.0	3.79	05/18/87
	JE	0.6	0.2	57.87	Vero	100.0	1.73	05/20/87
	SF	>2.4	>0.8	23.7	Vero	>100.0	4.2	11/20/86
	SF	>3.2	>1.1	8.78	Vero	>100.0	>11.4	11/18/86
	SF	>2.3	>0.87	13.6	Vero	>100.0	>7.4	11/18/86
	SF	>3.5	>1.2	6.6	Vero	>100.0	>15.2	11/19/86
	Ad	1.9	0.6	25.5	HEp-2	100.0	3.9	11/13/86
	Ad	.7	0.6	23.9	HEp-2	100.0	4.2	11/20/86
	Ad	2.2	0.7	31.0	HEp-2	320.0	10.3	12/04/86

VR* = Virus Rating calculated according to the method of Sidwell and Huffmar; (Appl. Microbiol. 22: 797-801, 1971).

UPDATED 09/28/87:ADB

SHIPMENT NO. 12

AVS NO.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
2237	PT	0	0	--	Vero	32.0	--	03/02/87
	YFV	0	0	--	Vero	10.0	--	02/16/87
	JE	0	0	--	Vero	32.0	--	05/21/87
	SF	0.15	0.05	--	Vero	100.0	--	11/26/86
	VV	0	0	--	Vero	32.0	--	11/20/86
	Ad	0	0	--	HEp-2	10.0	--	11/20/86
	VSV	0	0	--	L929	32.0	--	12/05/86
2238	PT	0.15	0.05	--	Vero	320.0	--	03/02/87
	YFV	0	0	--	Vero	320.0	--	02/16/87
	JE	0	0	--	Vero	100.0	--	04/30/87
	SF	0	0	--	Vero	3.2	--	11/26/86
	SF	1.75	0.58	212.1	Vero	320.0	1.5	12/15/86
	VV	0	0	--	Vero	320.0	--	11/20/86
	Ad	0	0	--	HEp-2	320.0	--	11/20/86
VSV	0	0	--	L929	32.0	--	12/05/86	
2239	PT	0	0	--	Vero	32.0	--	03/02/87
	YFV	0	0	--	Vero	10.0	--	02/16/87
	JE	0	0	--	Vero	100.0	--	04/30/87
	SF	0.6	0.2	--	Vero	100.0	--	11/26/86
	VV	0.3	0.1	--	Vero	320.0	--	11/20/86
	Ad	0	0	--	HEp-2	320.0	--	11/20/86
	VSV	0	0	--	L929	100.0	--	12/05/86
2240	PT	0.47	0.16	--	Vero	3.2	--	12/23/86
	YFV	0	0	--	Vero	32.0	--	02/16/87
	JE	0.7	0.23	--	Vero	100.0	--	04/30/87
	SF	0.3	0.1	--	Vero	100.0	--	11/26/86
	VV	0	0	--	Vero	320.0	--	11/20/86
	Ad	>0.3	>0.1	--	HEp-2	>320.0	--	11/20/86
	VSV	0	0	--	L929	32.0	--	12/05/86
2241	PT	0.67	0.22	584.4	Vero	320.0	0.55	12/23/86
	YFV	0	0	--	Vero	32.0	--	02/16/87
	JE	0.1	0.03	--	Vero	320.0	--	04/30/87
	SF	0	0	--	Vero	320.0	--	11/26/86
	VV	0	0	--	Vero	320.0	--	11/20/86
	Ad	>0.3	>0.1	--	HEp-2	>320.0	--	11/20/86
	VSV	0	0	--	L929	>320.0	--	12/05/86
2242	PT	0.05	0.017	--	Vero	32.0	--	12/23/86
	YFV	0.38	0.13	311.1	Vero	100.0	0.32	02/16/87
	JE	0	0	--	Vero	320.0	--	04/30/87
	SF	1.8	0.6	222.3	Vero	320.0	1.4	12/01/86
	SF	0.23	0.08	--	Vero	320.0	--	12/15/86
	VV	0	0	--	Vero	>320.0	--	11/20/86
	Ad	0	0	--	HEp-2	>100.0	--	11/20/86
VSV	0	0	--	L929	32.0	--	12/05/86	
2243	PT	1.325	0.44	191.7	Vero	32.0	0.17	12/23/86
	YFV	0	0	--	Vero	32.0	--	02/16/87
	JE	0.3	0.1	--	Vero	100.0	--	04/30/87

B-70

	SF	0.4	0.13	104.4	Vero	100.0	0.96	12/01/86
	VV	>0.1	>0.03	--	Vero	>320.0	--	11/20/86
	Ad	0	0	--	HEp-2	>320.0	--	11/20/86
	VSV	0	0	--	L929	100.0	--	12/05/86
2244	PT	0.175	0.058	--	Vero	3.2	--	12/23/86
	YFV	0	0	--	Vero	10.0	--	02/16/87
	JE	0	0	--	Vero	<10.0	--	04/30/87
	SF	<0.4	<0.13	--	Vero	<10.0	--	12/01/86
	SF	0.48	0.16	9.5	Vero	10.0	1.1	12/15/86
	VV	0.5	0.2	9.5	Vero	10.0	1.1	11/20/86
	Ad	0.2	0.07	--	HEp-2	10.0	--	11/20/86
	VSV	0.5	0.2	--	L929	10.0	--	12/05/86
2245	PT	0.1	0.03	--	Vero	100.0	--	03/02/87
	YFV	0	0	--	Vero	320.0	--	02/16/87
	JE	0	0	--	Vero	<320.0	--	04/30/87
	SF	<1.1	<0.37	--	Vero	<320.0	--	12/01/86
	VV	0.3	0.1	--	Vero	320.0	--	11/20/86
	Ad	0	0	--	HEp-2	320.0	--	11/20/86
	VSV	0	0	--	L929	100.0	--	12/05/86
2246	PT	0.39	0.13	--	Vero	10.0	--	12/11/86
	YFV	0	0	--	Vero	10.0	--	02/16/87
	JE	0.75	0.25	9.98	Vero	10.0	1.0	04/30/87
	SF	0.65	0.22	22.2	Vero	32.0	1.4	12/01/86
	VV	0	0	--	Vero	10.0	--	11/20/86
	Ad	0	0	--	HEp-2	32.0	--	11/20/86
	VSV	0	0	--	L929	10.0	--	12/05/86
2247	PT	1.95	0.65	11.4	Vero	32.0	2.8	12/11/86
	YFV	0.4	0.13	--	Vero	10.0	--	02/16/87
	JE	0	0	--	Vero	100.0	--	04/30/87
	SF	0.55	0.18	293.4	Vero	100.0	0.34	12/02/86
	VV	0	0	--	Vero	>100.0	--	11/20/86
	Ad	21.3	20.4	49.8	HEp-2	>320.0	26.4	11/20/86
	VSV	0	0	--	L929	100.0	--	12/05/86
2248	PT	0.16	0.05	2.13	Vero	1.0	0.47	12/11/86
	YFV	0.15	0.05	--	Vero	3.2	--	02/17/87
	JE	0	0	--	Vero	<10.0	--	04/30/87
	SF	0.65	0.22	8.5	Vero	10.0	1.2	12/02/86
	VV	0.5	0.17	--	Vero	10.0	--	03/12/87
	Ad	0	0	--	HEp-2	3.2	--	11/20/86
	VSV	0	0	--	L929	3.2	--	12/05/86
2249	PT	0.41	0.14	--	Vero	320.0	--	12/11/86
	YFV	0.1	0.03	--	Vero	32.0	--	02/17/87
	JE	0	0	--	Vero	>320.0	--	05/01/87
	SF	0	0	--	Vero	>320.0	--	12/02/86
	VV	0	0	--	Vero	>320.0	--	11/20/86
	Ad	>0.2	>0.07	--	HEp-2	>320.0	--	11/20/86
	VSV	0	0	--	L929	320.0	--	12/05/86
2250	PT	0.6	0.2	64.7	Vero	100.0	1.5	03/02/87
	YFV	0	0	--	Vero	10.0	--	02/17/87
	JE	0	0	--	Vero	32.0	--	05/01/87
	SF	0	0	--	Vero	100.0	--	12/02/86
	VV	0.9	0.3	57.3	Vero	100.0	1.7	11/20/86
	Ad	0	0	--	HEp-2	10.0	--	11/20/86

	VSV	0	0	--	L929	100.0	--	12/05/86
2251	PT	0.87	0.29	184.9	Vero	320.0	1.7	12/12/86
	YFV	0.15	0.05	--	Vero	10.0	--	02/17/87
	JE	0	0	--	Vero	100.0	--	05/01/87
	SF	0.15	0.05	--	Vero	320.0	--	12/02/86
	VV	0	0	--	Vero	>320.0	--	12/04/86
	Ad	0	0	--	HEp-2	>320.0	--	12/04/86
	VSV	0	0	--	L929	32.0	--	12/05/86
2252	PT	1.74	0.58	66.0	Vero	100.0	1.5	12/12/86
	YFV	0	0	--	Vero	100.0	--	02/17/87
	JE	0	0	--	Vero	10.0	--	05/01/87
	SF	0	0	--	Vero	100.0	--	12/04/86
	VV	0.7	0.2	281.2	Vero	320.0	1.1	12/04/86
	Ad	0	0	--	HEp-2	>320.0	--	12/04/86
	VSV	0	0	--	L929	<0.32	--	12/05/86
2253	PT	0.45	0.15	>100.0	Vero	10.0	<0.1	03/02/87
	YFV	0	0	--	Vero	10.0	--	02/17/87
	JE	0	0	--	Vero	10.0	--	05/01/87
	SF	0.6	0.2	297.9	Vero	32.0	0.11	12/04/86
	VV	0	0	--	Vero	>320.0	--	12/04/86
	Ad	0	0	--	HEp-2	320.0	--	12/04/86
	VSV	0	0	--	L929	10.0	--	12/09/86
2254	PT	>1.5	>0.5	134.1	Vero	>100.0	>0.75	12/12/86
	YFV	0.05	0.02	--	Vero	10.0	--	02/17/87
	JE	0	0	--	Vero	100.0	--	05/01/87
	SF	0	0	--	Vero	100.0	--	12/04/86
	VV	0	0	--	Vero	>320.0	--	12/04/86
	Ad	0	0	--	HEp-2	>320.0	--	12/04/86
	VSV	0	0	--	L929	10.0	--	12/05/86
2255	PT	>0.4	>0.13	--	Vero	>320.0	--	12/15/86
	YFV	0	0	--	Vero	3.2	--	02/17/87
	JE	0	0	--	Vero	320.0	--	05/01/87
	SF	0	0	--	Vero	100.0	--	12/04/86
	VV	0	0	--	Vero	>320.0	--	12/04/86
	Ad	0	0	--	HEp-2	>320.0	--	12/04/86
	VSV	0	0	--	L929	100.0	--	12/05/86
2256	PT	0.2	0.067	--	Vero	320.0	--	12/15/86
	YFV	0	0	--	Vero	10.0	--	02/17/87
	JE	0	0	--	Vero	32.0	--	05/01/87
	SF	0.2	0.07	--	Vero	32.0	--	12/04/86
	VV	0	0	--	Vero	>320.0	--	12/04/86
	Ad	0	0	--	HEp-2	100.0	--	12/04/86
	VSV	0	0	--	L929	100.0	--	12/05/86
2257	PT	0.3	0.1	--	Vero	100.0	--	12/15/86
	YFV	0	0	--	Vero	10.0	--	02/17/87
	JE	0	0	--	Vero	32.0	--	05/01/87
	SF	0.1	0.03	--	Vero	32.0	--	12/05/86
	VV	0.8	0.3	87.9	Vero	32.0	0.4	12/04/86
	Ad	0.8	0.3	57.5	HEp-2	32.0	0.6	12/04/86
	VSV	0	0	--	L929	32.0	--	12/05/86
2258	PT	0.4	0.13	--	Vero	320.0	--	12/15/86
	YFV	0.3	0.1	320.0	Vero	100.0	0.3	02/17/87

	JE	0	0	--	Vero	320.0	--	05/01/87
	SF	0.1	0.03	--	Vero	320.0	--	12/05/86
	VV	0	0	--	Vero	320.0	--	12/04/86
	Ad	0	0	--	HEp-2	>320.0	--	12/04/86
	VSV	0	0	--	L329	320.0	--	12/09/86
2259	PT	0.4	0.13	--	Vero	320.0	--	12/15/86
	YFV	0.35	0.12	--	Vero	100.0	--	03/23/87
	JE	0	0	--	Vero	320.0	--	05/01/87
	SF	0.18	0.06	--	Vero	320.0	--	12/05/86
	VV	0	0	--	Vero	>320.0	--	12/04/86
	Ad	0	0	--	HEp-2	>320.0	--	12/04/86
	VSV	0	0	--	L329	>320.0	--	12/09/86
2260	PT	0	0	--	Vero	>320.0	--	12/16/86
	YFV	0	0	--	Vero	>320.0	--	03/23/87
	JE	0	0	--	Vero	>320.0	--	05/04/87
	SF	>0.53	>0.18	--	Vero	>320.0	--	12/05/86
	VV	0	0	--	Vero	>320.0	--	12/04/86
	Ad	0	0	--	HEp-2	>320.0	--	12/04/86
	VSV	0	0	--	L329	>320.0	--	12/09/86
2261	PT	>0.8	>0.27	--	Vero	>320.0	--	12/16/86
	YFV	0	0	--	Vero	320.0	--	03/23/87
	JE	0	0	--	Vero	>320.0	--	05/04/87
	SF	0.14	0.05	--	Vero	32.0	--	12/05/86
	VV	0	0	--	Vero	>320.0	--	12/04/86
	Ad	0	0	--	HEp-2	>320.0	--	12/04/86
	VSV	0	0	--	L329	>320.0	--	12/09/86
2262	PT	0	0	--	Vero	320.0	--	12/16/86
	YFV	0	0	--	Vero	100.0	--	03/23/87
	JE	0.15	0.05	--	Vero	32.0	--	05/20/87
	SF	0	0	--	Vero	>320.0	--	12/16/86
	VV	0	0	--	Vero	>320.0	--	12/04/86
	Ad	0	0	--	HEp-2	320.0	--	12/04/86
	VSV	0	0	--	L329	>320.0	--	12/09/86
2263	PT	>0.3	>0.1	--	Vero	>320.0	--	12/16/86
	YFV	0	0	--	Vero	320.0	--	03/23/87
	JE	>0.6	>0.2	--	Vero	>320.0	--	05/21/87
	SF	0	0	--	Vero	>320.0	--	12/16/86
	VV	0	0	--	Vero	>320.0	--	12/04/86
	Ad	0	0	--	HEp-2	>320.0	--	12/04/86
	VSV	0	0	--	L329	>320.0	--	12/09/86
2264	PT	>0.1	>0.03	--	Vero	>320.0	--	12/16/86
	YFV	0	0	--	Vero	100.0	--	03/23/87
	JE	0	0	--	Vero	100.0	--	05/21/87
	SF	0	0	--	Vero	>320.0	--	12/16/86
	VV	0	0	--	Vero	>320.0	--	12/04/86
	Ad	>0.2	>0.07	--	HEp-2	>320.0	--	12/04/86
	VSV	0	0	--	L329	>320.0	--	12/09/86
2265	PT	0.25	0.08	--	Vero	100.0	--	12/17/86
	YFV	0	0	--	Vero	32.0	--	03/23/87
	JE	0	0	--	Vero	<100.0	--	05/21/87
	SF	<0.3	<0.1	--	Vero	<100.0	--	12/16/86
	VV	0.8	0.3	210.0	Vero	100.0	0.5	12/04/86

	Ad	0	0	--	HEp-2	32.0	--	12/04/86
	VSV	0	0	--	L929	32.0	--	12/09/86
2266	PT	0.2	0.067	--	Vero	32.0	--	12/17/86
	YFV	0	0	--	Vero	32.0	--	03/23/87
	JE	0	0	--	Vero	32.0	--	05/21/87
	SF	0.65	0.22	--	Vero	32.0	--	12/16/86
	VV	0.6	0.2	--	Vero	32.0	--	12/04/86
	Ad	0	0	--	HEp-2	10.0	--	12/04/86
	VSV	0	0	--	L929	100.0	--	12/09/86
2267	PT	0.55	0.18	685.9	Vero	100.0	0.15	12/17/86
	YFV	0	0	--	Vero	32.0	--	03/23/87
	JE	0	0	--	Vero	10.0	--	05/21/87
	SF	0.25	0.08	--	Vero	100.0	--	12/02/86
	VV	0	0	--	Vero	320.0	--	12/04/86
	Ad	0	0	--	HEp-2	32.0	--	12/04/86
	VSV	0	0	--	L929	320.0	--	12/09/86
2268	PT	1.0	0.33	111.0	Vero	100.0	0.90	12/17/86
	YFV	0	0	--	Vero	100.0	--	03/23/87
	JE	0	0	--	Vero	32.0	--	05/21/87
	SF	1.45	0.48	--	Vero	32.0	--	12/04/86
	VV	0.3	0.1	--	Vero	100.0	--	12/04/86
	Ad	0	0	--	HEp-2	1.0	--	12/04/86
	VSV	0	0	--	L929	320.0	--	12/09/86
2269	PT	2.50	0.83	0.032	Vero	1.0	31.25	10/06/87
	VEE	0	0	--	Vero	6.4	--	11/12/87
	YFV	0.20	0.07	--	Vero	1.0	--	10/06/87
	PIC	--	--	--	Vero	0.032	--	11/13/87
	JE	0	0	--	Vero	1.0	--	10/06/87
	SF	0.20	0.07	--	Vero	1.0	--	10/06/87
	**VV	0	0	--	Vero	1.0	--	11/05/87
	***VV	0	0	--	Vero	1.0	--	11/05/87
	**Ad	0.1	0.03	--	HEp-2	1.0	--	11/05/87
	***Ad	0.2	0.07	--	HEp-2	1.0	--	11/05/87
	**VSV	0.45	0.15	0.072	L929	0.032	0.44	11/05/87
	***VSV	0.9	0.3	--	L929	0.032	--	11/05/87
	**VSV	0.15	0.05	--	L929	0.1	--	11/06/87
	***VSV	0	0	--	L929	1.0	--	11/06/87
2270	PT	0.1	0.03	--	Vero	100.0	--	12/17/86
	YFV	0.28	0.09	--	Vero	32.0	--	03/23/87
	JE	0.6	0.2	200.5	Vero	320.0	1.6	05/22/87
	SF	0.93	0.3	25.5	Vero	3.2	0.13	12/04/86
	SF	0	0	--	Vero	10.0	--	12/29/86
	VV	0.5	0.2	--	Vero	100.0	--	12/04/86
	Ad	0.3	0.1	--	HEp-2	3.2	--	12/04/86
	VSV	0.4	0.1	31.0	L929	32.0	1.0	12/09/86
2271	PT	0	0	--	Vero	320.0	--	12/18/86
	YFV	0	0	--	Vero	10.0	--	02/19/87
	JE	0	0	--	Vero	320.0	--	05/22/87
	SF	0.3	0.1	--	Vero	32.0	--	12/04/86
	VV	0.3	0.1	--	Vero	32.0	--	12/04/86
	Ad	0	0	--	HEp-2	3.2	--	12/04/86
	VSV	0.2	0.07	--	L929	32.0	--	12/09/86
2272	PT	0	0	--	Vero	320.0	--	12/18/86

	YFV	0	0	--	Vero	32.0	--	02/19/87
	JE	0.35	0.12	--	Vero	100.0	--	05/05/87
	SF	0.85	0.28	14.2	Vero	10.0	0.7	12/04/86
	VV	0.3	0.1	--	Vero	320.0	--	12/04/86
	Ad	0.6	0.2	9.3	HEp-2	10.0	1.1	12/04/86
	VSV	0.2	0.07	--	L929	32.0	--	12/09/86
2273	PT	0.4	0.13	--	Vero	100.0	--	12/18/86
	YFV	0.78	0.26	98.4	Vero	10.0	0.1	02/19/87
	JE	0	0	--	Vero	10.0	--	05/05/87
	SF	0.1	0.03	--	Vero	100.0	--	12/11/86
	VV	0.2	0.07	--	Vero	100.0	--	12/04/86
	Ad	0.3	0.1	--	HEp-2	100.0	--	12/04/86
	VSV	0	0	--	L929	100.0	--	12/09/86
2274	PT	1.5	0.5	55.9	Vero	100.0	1.79	12/18/86
	YFV	1.25	0.42	22.3	Vero	3.2	0.14	02/19/87
	JE	0.85	0.28	31.8	Vero	100.0	1.1	05/05/87
	SF	2.0	0.67	15.9	Vero	100.0	6.3	12/23/86
	VV	0.3	0.1	--	Vero	32.0	--	12/04/86
	Ad	0.3	0.1	--	HEp-2	100.0	--	12/04/86
	VSV	0.2	0.07	--	L929	32.0	--	12/09/86
2275	PT	2.1	0.7	41.0	Vero	320.0	7.8	12/18/86
	YFV	3.23	1.08	13.1	Vero	320.0	24.4	02/19/87
	YFV	0.51	0.17	79.6	Vero	10.0	0.13	08/19/87
	JE	0.5	0.17	61.7	Vero	100.0	1.6	05/05/87
	SF	2.1	0.7	13.5	Vero	100.0	7.4	12/23/86
	VV	2.1	0.7	14.8	Vero	100.0	6.8	12/04/86
	Ad	1.6	0.5	57.5	HEp-2	100.0	1.7	12/04/86
	VSV	0.4	0.1	31.0	L929	10.0	0.3	12/09/86
Ara-A	VV	3.0	1.0	5.7	Vero	32.0	5.6	11/20/86
	VV	3.1	1.0	5.3	Vero	32.0	6.0	12/04/86
	VV	3.2	1.1	2.6	Vero	32.0	12.3	03/12/87
	VV	2.9	0.97	3.0	Vero	32.0	10.6	11/05/87
C-3-Desaza-								
Ad0	VSV	1.8	0.6	3.1	L929	3.2	1.0	12/05/86
	VSV	2.1	0.7	3.1	L929	10.0	3.2	12/09/86
	VSV	4.2	1.4	1.8	L929	32.0	17.9	11/06/87
Ribavirin	PT	>0.70	>0.23	84.95	Vero	>100.0	>1.18	10/06/87
	VEE	1.0	0.33	28.28	Vero	32.0	1.13	11/12/87
	YFV	0.75	0.25	50.54	Vero	100.0	1.98	10/06/87
	PIC	--	--	24.24	Vero	100.0	4.13	11/13/87
	PIC	--	--	31.55	Vero	100.0	3.17	11/13/87
	PIC	--	--	22.89	Vero	100.0	4.37	11/13/87
	JE	0.6	0.2	57.87	Vero	100.0	1.73	05/20/87
	JE	1.9	0.63	15.95	Vero	100.0	6.27	10/06/87
	SF	2.10	0.70	11.72	Vero	100.0	8.53	10/06/87
	Ad	1.7	0.6	23.9	HEp-2	100.0	4.2	11/20/86
	Ad	2.2	0.7	31.0	HEp-2	320.0	10.3	12/04/86
	VSV	1.1	0.37	78.0	L929	10.0	0.13	11/06/87

Selena- zole								
PT	1.33	0.44	3.31	Vero	3.2	0.97	12/11/86	
PT	2.69	0.90	2.59	Vero	10.0	3.9	12/12/86	
PT	1.3	0.43	12.7	Vero	10.0	0.79	12/15/86	
PT	1.4	0.47	10.3	Vero	3.2	0.31	12/16/86	
PT	1.55	0.52	6.40	Vero	3.2	0.50	12/17/86	
PT	1.0	0.33	32.0	Vero	3.2	0.10	12/18/86	
PT	1.9	0.63	4.96	Vero	3.2	0.65	12/23/86	
PT	1.78	0.59	7.2	Vero	10.0	1.38	03/02/87	
PT	1.10	0.37	14.33	Vero	10.0	0.70	10/06/87	
VEE	2.40	0.80	0.41	Vero	0.32	0.77	11/12/87	
YFV	2.9	0.97	2.01	Vero	10.0	4.98	02/16/87	
YFV	3.5	1.17	0.52	Vero	3.2	6.13	02/17/87	
YFV	3.1	1.03	0.95	Vero	3.2	3.36	02/19/87	
YFV	3.78	1.26	0.73	Vero	10.0	13.8	03/23/87	
YFV	1.83	0.61	4.86	Vero	1.0	0.21	08/19/87	
YFV	2.60	0.87	2.79	Vero	10.0	3.58	10/06/87	
JE	2.75	0.92	1.32	Vero	3.2	2.4	04/30/87	
JE	2.08	0.69	3.1	Vero	10.0	3.2	05/01/87	
JE	1.95	0.65	3.1	Vero	10.0	3.2	05/04/87	
JE	2.15	0.72	2.18	Vero	10.0	4.6	05/05/87	
JE	2.25	0.75	2.56	Vero	3.2	1.25	05/21/87	
JE	3.2	1.07	0.82	Vero	3.2	3.9	05/22/87	
JE	3.25	1.08	0.75	Vero	3.2	4.28	05/22/87	
JE	3.10	1.03	1.565	Vero	10.0	6.39	10/06/87	
SF	0.09	0.03	--	Vero	10.0	--	11/26/86	
SF	2.48	0.83	3.8	Vero	10.0	2.6	12/01/86	
SF	3.35	1.12	1.3	Vero	10.0	7.6	12/02/86	
SF	2.4	0.8	9.3	Vero	32.0	3.4	12/02/86	
SF	1.8	0.6	6.3	Vero	10.0	1.6	12/02/86	
SF	2.3	0.77	3.28	Vero	10.0	3.05	12/04/86	
SF	2.6	0.87	3.1	Vero	10.0	3.2	12/04/86	
SF	2.25	0.75	2.2	Vero	10.0	4.6	12/05/86	
SF	2.8	0.93	3.85	Vero	10.0	2.6	12/15/86	
SF	3.09	1.03	1.77	Vero	10.0	5.7	12/15/86	
SF	2.25	0.75	3.55	Vero	10.0	2.8	12/16/86	
SF	2.3	0.77	4.57	Vero	10.0	2.2	12/16/86	
SF	2.7	0.9	7.34	Vero	3.2	0.44	12/23/86	
SF	1.7	0.57	7.79	Vero	3.2	0.4	12/29/86	
SF	1.55	0.52	8.396	Vero	10.0	1.19	10/06/87	
VV	2.7	0.9	5.9	Vero	3.2	0.5	11/20/86	
VV	2.5	0.8	15.3	Vero	3.2	0.2	12/04/86	
VV	2.55	0.85	10.5	Vero	10.0	0.95	03/12/87	
VV	2.45	0.82	6.4	Vero	10.0	1.56	11/05/87	
Ad	1.5	0.5	8.0	HEp-2	32.0	4.0	11/20/86	
Ad	1.9	0.6	18.8	HEp-2	32.0	1.7	12/04/86	
Ad	2.1	0.7	14.4	HEp-2	32.0	2.2	11/05/87	

VR = Virus Rating calculated according to the method of Sidwell and Huffman (Appl. Microbiol. 22: 797-801, 1971).

** Prep received from Genentech on 11/4/86.

*** Prep received from Genentech on 4/10/87.

† Compound added 24hr pre virus inoculation.

UPDATED: 11/30/87

SHIPMENT NO. 13

AVS NO.	VIR	V1	VR*	ID50	CELL	MTC	TI	DATE
801	PT	0.08	0.027	--	Vero	32.0	--	12/30/86
	YFV	0.75	0.25	9.7	Vero	10.0	1.0	02/13/87
	JE	0	0	--	Vero	32.0	--	05/05/87
	SF	0.98	0.33	--	Vero	10.0	--	12/15/86
	SF	0	0	--	Vero	3.2	--	12/29/86
	VV	0.2	0.07	--	Vero	10.0	--	12/11/86
	Ad	0	0	--	HEp-2	3.2	--	12/11/86
	VSV	0	0	--	L929	10.0	--	12/12/86
2311	PT	>0.98	>0.33	--	Vero	>320.0	--	12/30/86
	JE	0	0	--	Vero	>320.0	--	05/05/87
	SF	2.22	0.71	--	Vero	320.0	--	12/15/86
	SF	0	0	--	Vero	>100.0	--	12/29/86
	VV	>0.2	>0.07	--	Vero	>320.0	--	12/11/86
	Ad	0	0	--	HEp-2	>320.0	--	12/11/86
	VSV	0	0	--	L929	>320.0	--	12/12/86
	2313	PT						
VV		1.8	0.6	7.5	Vero	3.2	0.4	12/11/86
Ad		0	0	--	HEp-2	3.2	--	12/11/86
VSV		0	0	--	L929	1.0	--	12/12/86
2315	PT							
	VV	0.3	0.1	--	Vero	100.0	--	12/11/86
	Ad	0	0	--	HEp-2	320.0	--	12/11/86
	VSV	0	0	--	L929	>320.0	--	12/12/86
2316	PT	0.45	0.15	--	Vero	100.0	--	12/30/86
	YFV	0.75	0.25	297.9	Vero	100.0	0.34	02/13/87
	JE	0	0	--	Vero	10.0	--	05/05/87
	SF	1.48	0.49	111.2	Vero	<320.0	2.9	12/15/86
	VV	0	0	--	Vero	320.0	--	12/11/86
	Ad	0	0	--	HEp-2	>320.0	--	12/11/86
	VSV	0	0	--	L929	>320.0	--	12/12/86
	2317	PT	1.0	0.33	--	Vero	320.0	--	12/30/86
YFV		0	0	--	Vero	100.0	--	02/13/87
JE		0.25	0.08	--	Vero	100.0	--	05/05/87
SF		1.12	0.37	18.7	Vero	320.0	17.1	12/15/86
SF		0	0	--	Vero	100.0	--	08/18/87
VV		0	0	--	Vero	320.0	--	12/11/86
Ad		0.5	0.2	--	HEp-2	100.0	--	12/11/86
VSV		0	0	--	L929	100.0	--	12/12/86
2318		PT	4.4	1.47	0.73	Vero	3.2	4.36	12/30/86
	JE	3.3	1.1	0.74	Vero	10.0	13.6	05/05/87
	JE	2.5	0.83	0.5	Vero	3.2	6.33	07/28/87
	SF	4.56	1.52	0.32	Vero	3.2	10.0	12/15/86
	SF	0	0	--	Vero	>1.0	--	12/29/86
	SF	2.5	0.83	0.32	Vero	1.0	3.13	07/28/87
	VV	3.1	1.0	1.8	Vero	1.0	0.6	12/11/86
	Ad	1.7	0.6	0.32	HEp-2	3.2	10.0	12/18/86
	Ad	1.8	0.8	3.59	HEp-2	10.0	2.79	09/04/87
	Ad	0.3	0.1	--	HEp-2	10.0	--	09/24/87

	VSV	2.1	0.7	2.0	L929	3.2	1.6	12/12/86
2319	PT	0.3	0.1	--	Vero	100.0	--	12/31/86
	YFV	0.225	0.075	--	Vero	10.32	--	02/19/87
	JE	1.1	0.37	--	Vero	320.0	--	05/05/87
	SF	0.36	0.12	--	Vero	32.0	--	12/15/86
	SF	0	0	--	Vero	>10.0	--	12/30/86
	VV	>0.9	>0.3	--	Vero	>320.0	--	12/11/86
	Ad	0.4	0.1	--	HEp-2	10.0	--	12/11/86
	VSV	0	0	--	L929	>320.0	--	12/12/86
2320	PT	1.8	0.6	17.7	Vero	32.0	1.8	12/31/86
	YFV	0.3	0.1	29.8	Vero	10.0	0.3	02/20/87
	JE	0.05	0.02	--	Vero	100.0	--	05/05/87
	SF	3.49	1.16	2.06	Vero	100.0	48.5	12/15/86
	SF	3.4	1.13	00.75	Vero	3.2	4.26	07/28/87
	VV	1.7	0.6	43.8	Vero	10.0	0.2	12/11/86
	Ad	0.5	0.2	--	HEp-2	32.0	--	12/11/86
	VSV	0	0	--	L929	32.0	--	12/12/86
2321	PT	0.1	0.03	--	Vero	0.32	--	03/16/87
	YFV	0.5	0.17	0.03	Vero	0.01	0.34	03/27/87
	YFV	0.4	0.13	0.31	Vero	0.32	1.0	05/13/87
	JE	0.25	0.08	0.32	Vero	0.32	1.0	06/09/87
	SF	>1.5	>0.5	--	Vero	10.32	--	12/15/86
	VV	1.4	0.5	0.3	Vero	1.0	3.2	12/18/86
	Ad	0	0	--	HEp-2	1.0	--	12/11/86
	VSV	0	0	--	L929	1.0	--	12/12/86
2322	PT	0.9	0.3	--	Vero	320.0	--	12/31/86
	YFV	0	0	--	Vero	320.0	--	02/20/87
	JE	0.6	0.2	--	Vero	320.0	--	05/06/87
	SF	>4.0	>1.33	42.1	Vero	>320.0	7.6	12/15/86
	SF	0	0	--	Vero	>100.0	--	12/30/86
	VV	0	0	--	Vero	320.0	--	12/11/86
	Ad	0	0	--	HEp-2	>320.0	--	12/11/86
	VSV	0	0	--	L929	320.0	--	12/12/86
2323	PT	0.1	0.03	--	Vero	3.2	--	12/31/86
	YFV	>0.15	>0.05	--	Vero	10.32	--	02/20/87
	JE	0.7	0.23	--	Vero	10.0	--	05/06/87
	SF	0.99	0.33	92.96	Vero	3.2	0.03	12/15/86
	SF	0	0	--	Vero	1.0	--	12/29/86
	VV	2.8	0.9	2.4	Vero	10.0	4.3	12/11/86
	Ad	0.7	0.2	32.0	HEp-2	10.0	0.3	12/11/86
	VSV	0	0	--	L929	100.0	--	12/12/86
2325	PT	>0.15	>0.05	--	Vero	>320.0	--	01/02/87
	YFV	0.1	0.03	--	Vero	32.0	--	02/20/87
	JE	>0.5	>0.17	--	Vero	>320.0	--	05/06/87
	SF	2.4	0.8	1.0	Vero	100.0	100.0	12/15/86
	SF	0	0	--	Vero	>32.0	--	12/30/86
	SF	0	0	--	Vero	320.0	--	08/18/87
	VV	0	0	--	Vero	>320.0	--	12/11/86
	Ad	0	0	--	HEp-2	>320.0	--	12/11/86
	VSV	0	0	--	L929	>320.0	--	12/12/86
2326	PT	0.125	0.04	--	Vero	320.0	--	01/02/87
	YFV	0.25	0.08	--	Vero	100.0	--	02/20/87
	JE	1.0	0.33	--	Vero	320.0	--	05/06/87

	SF	0.1	0.03	--	Vero	100.0	--	12/16/86
	VV	>1.7	>0.6	103.3	Vero	>320.0	>3.1	12/11/86
	Ad	0	0	--	HEp-2	>320.0	--	12/11/86
	VSV	0	0	--	L929	32.0	--	12/12/86
2327	PT	2.0	0.67	100.9	Vero	320.0	3.2	01/02/87
	YFV	0.95	0.32	--	Vero	100.0	--	02/20/87
	JE	0	0	--	Vero	100.0	--	05/06/87
	SF	0.25	0.08	--	Vero	320.0	--	12/16/86
	VV	0.3	0.1	--	Vero	320.0	--	12/11/86
	Ad	0.5	0.2	--	HEp-2	320.0	--	12/11/86
	VSV	0.6	0.2	298.0	L929	100.0	0.3	12/12/86
2328	PT	1.0	0.3	--	Vero	320.0	--	01/02/87
	YFV	0	0	--	Vero	100.0	--	02/20/87
	JE	0.2	0.07	--	Vero	320.0	--	05/06/87
	SF	0	0	--	Vero	100.0	--	12/16/86
	VV	0	0	--	Vero	320.0	--	12/11/86
	Ad	0	0	--	Vero	>320.0	--	12/11/86
	VSV	0	0	--	L929	320.0	--	12/12/86
2329	PT	0	0	--	Vero	1.0	--	01/02/87
	YFV	0	0	--	Vero	10.32	--	02/20/87
	JE	0	0	--	Vero	1.0	--	05/06/87
	SF	0	0	--	Vero	100.0	--	12/16/86
	VV	0.8	0.3	3.2	Vero	1.0	0.3	12/11/86
	Ad	0	0	--	HEp-2	1.0	--	12/11/86
	VSV	0	0	--	L929	10.32	--	12/12/86
	VSV	0	0	--	L929	0.10	--	01/16/87
2331	PT	0.5	0.2	--	Vero	1.0	--	01/05/87
	YFV	0	0	--	Vero	32.0	--	02/20/87
	JE	0	0	--	Vero	10.0	--	05/06/87
	SF	0.4	0.13	30.4	Vero	10.0	0.33	12/16/86
	VV	0.5	0.2	--	Vero	32.0	--	12/11/86
	Ad	0.2	0.07	--	HEp-2	32.0	--	12/11/86
	VSV	0	0	--	L929	32.0	--	12/12/86
2335	PT	1.6	0.53	179.8	Vero	32.0	0.18	01/05/87
	YFV	0.15	0.05	--	Vero	32.0	--	02/20/87
	JE	0	0	--	Vero	320.0	--	05/06/87
	SF	0.75	0.25	156.2	Vero	100.0	0.64	12/16/86
	VV	0	0	--	Vero	320.0	--	12/11/86
	Ad	>0.1	>0.03	--	HEp-2	>320.0	--	12/11/86
	VSV	0	0	--	L929	320.0	--	12/12/86
2336	PT	0.11	0.037	--	Vero	1.0	--	01/05/87
	YFV	0.15	0.05	--	Vero	32.0	--	03/13/87
	JE	0.2	0.07	--	Vero	100.0	--	05/06/87
	SF	0	0	--	Vero	100.0	--	12/16/86
	VV	1.5	0.5	88.4	Vero	320.0	3.6	12/11/86
	Ad	>0.3	>0.1	--	HEp-2	>320.0	--	12/11/86
	VSV	0	0	--	L929	320.0	--	12/12/86
2340	PT	0.51	0.17	--	Vero	1.0	--	01/05/87
	YFV	0	0	--	Vero	100.0	--	03/13/87
	JE	0	0	--	Vero	100.0	--	05/07/87
	SF	0	0	--	Vero	100.0	--	12/16/87
	VV	0.2	0.07	--	Vero	320.0	--	12/11/86
	Ad	0	0	--	HEp-2	>320.0	--	12/11/86

	VSV	0	0	--	L929	>320.0	--	12/12/86
2344	PT							
	YFV	0.35	0.12	0.03	Vero	0.01	0.32	05/13/87
	JE	0	0	--	Vero	<0.032	--	06/09/87
	SF	0	0	--	Vero	3.2	--	12/16/86
	VV	0.2	0.07	--	Vero	0.032	--	12/18/86
	Ad	0	0	--	HEp-2	0.032	--	12/18/86
	VSV	22.4	20.8	<0.32	L929	10.32	21.0	12/12/86
	VSV	1.4	0.47	0.31	L929	0.10	0.3	01/20/87
2352	PT	>1.06	>0.35	--	Vero	>320.0	--	01/06/87
	YFV	0.45	0.15	236.7	Vero	320.0	1.35	03/13/87
	JE	>0.1	>0.03	--	Vero	>320.0	--	05/07/87
	SF	0	0	--	Vero	320.0	--	12/16/86
	VV	0	0	--	Vero	>320.0	--	12/11/86
	Ad	0	0	--	HEp-2	>320.0	--	12/11/86
	VSV	0	0	--	L929	>320.0	--	12/12/86
Ara-A	VV	3.2	1.1	3.0	Vero	32.0	10.7	12/11/86
	VV	3.0	1.0	5.5	Vero	32.0	5.8	12/18/86
C-3-Deaza- AdD	VSV	1.9	0.6	5.2	L929	3.2	0.6	12/12/86
	VSV	1.3	0.43	18.5	L929	3.2	0.2	01/16/87
	VSV	2.2	0.73	4.9	L929	10.0	2.0	01/20/87
Ribavirin	YFV	0.8	0.27	73.4	Vero	100.0	1.4	05/13/87
	SF	3.49	1.16	1.95	Vero	32.0	16.45	07/28/87
	SF	3.2	1.07	5.05	Vero	100.0	19.81	08/18/87
	Ad	1.5	0.5	72.4	HEp-2	100.0	1.4	12/11/86
	Ad	1.7	0.6	64.7	HEp-2	100.0	1.5	12/18/86
	Ad	1.4	0.47	50.5	HEp-2	100.0	1.38	09/04/87
	Ad	1.3	0.4	63.4	HEp-2	100.0	1.6	09/24/87
	Ad	1.3	0.4	63.3	HEp-2	100.0	1.6	09/24/87
	Ad	1.3	0.4	56.6	HEp-2	100.0	1.8	09/24/87
	Ad	1.2	0.4	63.3	HEp-2	100.0	1.6	09/24/87
	Ad	1.4	0.5	50.9	HEp-2	100.0	2.0	09/24/87
Selenazole	PT	1.57	0.52	3.14	Vero	10.0	1.2	12/30/86
	PT	1.55	0.52	19.5	Vero	3.2	0.16	12/31/86
	PT	1.475	0.49	5.12	Vero	10.0	1.95	01/02/87
	PT	1.75	0.58	7.07	Vero	3.2	0.45	01/05/87
	PT	1.99	0.66	8.69	Vero	10.0	1.2	01/06/87
	PT	1.1	0.37	35.6	Vero	10.0	0.28	03/16/87
	YFV	3.1	1.03	0.95	Vero	3.2	3.4	02/19/87
	YFV	1.3	0.43	7.8	Vero	10.0	1.3	02/20/87
	YFV	2.57	0.86	2.6	Vero	10.0	3.8	03/13/87
	YFV	3.6	1.2	0.57	Vero	3.2	5.7	03/27/87
	JE	2.15	0.72	2.2	Vero	10.0	4.6	05/05/87
	JE	1.95	0.65	2.9	Vero	10.0	3.5	05/06/87
	JE	2.15	0.72	0.9	Vero	3.2	3.6	05/07/87
	JE	2.4	0.8	1.45	Vero	3.2	2.2	06/09/87
	JE	2.7	0.9	1.5	Vero	3.2	2.09	07/28/87
	SF	2.8	0.93	3.85	Vero	10.0	2.6	12/15/86
	SF	3.09	1.03	1.77	Vero	10.0	5.7	12/15/86

SF	2.25	0.75	3.55	Vero	10.0	2.8	12/16/86
SF	2.3	0.77	4.57	Vero	10.0	2.2	12/16/86
SF	1.7	0.57	7.79	Vero	3.2	0.4	12/29/86
SF	1.65	0.53	12.7	Vero	10.0	0.79	12/30/86
VV	2.7	0.9	6.0	Vero	3.2	0.5	12/11/86
VV	2.5	0.8	7.5	Vero	3.2	0.4	12/18/86
Ad	1.2	0.4	51.8	HEp-2	32.0	0.6	12/11/86
Ad	1.2	0.4	59.0	HEp-2	32.0	0.5	12/18/86
Ad	1.1	0.37	46.78	HEp-2	100.0	2.14	09/04/87
Ad	1.1	0.4	100.0	HEp-	32.0	0.3	09/24/87
Ad	0.9	0.3	100.0	HEp-2	32.0	0.3	09/24/87
Ad	0.8	0.3	157.3	HEp-2	32.0	0.2	09/24/87
Ad	0.9	0.3	133.2	HEp-2	32.0	0.2	09/24/87
Ad	0.9	0.3	110.0	HEp-2	32.0	0.3	09/24/87

VR* = Virus Rating calculated according to the method of Sidwell and Huffman (Appl. Microbiol. 22: 797-801, 1971).

UPDATED 10/05/87:ADE

SHIPMENT NO. 14

AVS NO.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE	
2350	PT	1.9	0.6	582.0	Vero	20000	34.4	10/06/87	
	VEE	3.0	1.0	2.81	Vero	200	71.2	11/12/87	
	YFV	>3.5	>1.2	84.4	Vero	>20000	>237	10/06/87	
	PIC	N/A	N/A	158.5	Vero	>20000	>126	12/04/87	
	JE	>6.6	>2.2	0.356	Vero	>20000	>56182	10/06/87	
	SF	>2.7	>0.9	139.5	Vero	>20000	>143	10/06/87	
	VV	>0.3	>0.1	--	Vero	>20000	--	11/05/87	
	Ad	1.8	0.6	6.3	HEp-2	20	3.2	11/05/87	
	Ad	0.6	0.2	--	HEp-2	20	--	02/04/88	
	VSV	>1.1	>0.4	--	Vero	>20000	--	11/05/87	
	VSV	2.0	0.7	631.7	Vero	200000	317	11/12/87	
	Ara-A	VV	2.9	0.97	3.02	Vero	32.0	10.6	11/06/87
	C-3-Deaza- AdO	VSV	4.3	1.4	0.83	L929	10.0	12.1	11/13/87
Selenazole	PT	1.1	0.4	14.3	Vero	10.0	0.7	10/06/87	
	VEE	2.4	0.8	0.41	Vero	0.32	0.8	11/12/87	
	YFV	2.6	0.9	2.79	Vero	10.0	3.6	10/06/87	
	JE	3.1	1.03	1.57	Vero	10.0	6.4	10/06/87	
	SF	1.6	0.52	8.4	Vero	10.0	1.2	10/06/87	
	VV	2.5	0.8	6.41	Vero	10.0	1.6	11/05/87	
	Ad	2.05	0.7	14.4	HEp-2	32.0	2.2	11/05/87	
Ribavirin	PT	>0.7	>0.2	85.0	Vero	>100.0	>1.2	10/06/87	
	VEE	1.0	0.3	28.3	Vero	32.0	1.1	11/12/87	
	YFV	0.8	0.3	50.5	Vero	100.0	2.0	10/06/87	
	PIC	N/A	N/A	5.65	Vero	32.0	5.67	12/04/87	
	JE	1.9	0.6	16.0	Vero	100.0	6.3	10/06/87	
	SF	2.1	0.7	11.7	Vero	100.0	8.5	10/06/87	
	VSV	1.3	0.4	53.7	L929	100.0	1.9	11/13/87	

VR* = Virus Rating calculated according to the method of Sidwell and Huffman (Appl. Microbiol. 22: 797-801, 1971).

Note: MTC and ID50 expressed as Units(IU)/ML.

Human Recombinant Interferon--pretreated 24 hrs. prior to infection and day of infection.

UPDATED: 12/14/87:ADB

SHIPMENT NO. 15

AVS NO.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
2068	PT	>1.7	>0.57	--	Vero	>320.0	--	01/29/87
	YFV	0	0	--	Vero	320.0	--	03/31/87
	SF	0	0	--	Vero	3.2	--	01/15/87
	VV	0	0	--	Vero	320.0	--	12/18/86
	Ad	0	0	--	HEp-2	>320.0	--	12/18/86
	VSV	0	0	--	L929	32.0	--	12/30/86
2069	PT	0.6	0.2	--	Vero	320.0	--	01/29/87
	YFV	0.15	0.05	--	Vero	320.0	--	03/31/87
	SF	0	0	--	Vero	>100.0	--	01/15/87
	VV	0	0	--	Vero	>320.0	--	12/18/86
	Ad	0.1	0.03	--	HEp-2	320.0	--	12/18/86
	VSV	0	0	--	L929	100.0	--	12/30/86
2355	PT	>1.1	>0.37	--	Vero	>320.0	--	01/29/87
	YFV	0.5	0.17	281.2	Vero	100.0	0.36	03/31/87
	SF							
	VV	0	0	--	Vero	>320.0	--	12/18/86
	Ad	>0.2	>0.07	--	HEp-2	>320.0	--	12/18/86
	VSV	0	0	--	L929	320.0	--	12/30/86
2356	PT	>1.85	>0.62	42.67	Vero	32.0	0.75	01/29/87
	PT	>0.5	>0.17	--	Vero	>320.0	--	02/10/87
	PT	0.4	0.13	94.76	Vero	32.0	0.34	03/16/87
	YFV	0.6	0.2	93.18	Vero	100.0	1.07	03/31/87
	SF	0	0	--	Vero	100.0	--	01/15/87
	VV	0	0	--	Vero	100.0	--	12/18/86
	Ad	0	0	--	HEp-2	32.0	--	12/18/86
	VSV	0.4	0.1	97.0	L929	32.0	0.3	12/30/86
2357	PT	1.5	0.5	320.0	Vero	100.0	0.31	01/29/87
	PT	0.48	0.16	224.14	Vero	320.0	1.43	03/16/87
	YFV	0.25	0.08	--	Vero	100.0	--	03/31/87
	SF	0	0	--	Vero	100.0	--	01/06/87
	VV	0	0	--	Vero	320.0	--	12/18/86
	Ad	0	0	--	HEp-2	320.0	--	12/18/86
	VSV	0.2	0.07	--	L929	320.0	--	12/30/86
2358	PT	1.98	0.66	247.0	Vero	32.0	0.13	01/30/87
	YFV	0.6	0.2	93.18	Vero	32.0	0.34	03/31/87
	SF	0.1	0.03	--	Vero	32.0	--	01/06/87
	VV	0.9	0.3	21.0	Vero	32.0	1.5	12/18/86
	Ad	0	0	--	HEp-2	10.0	--	12/18/86
	VSV	0	0	--	L929	10.0	--	12/30/86
2359	PT	1.83	0.6	--	Vero	32.0	--	01/30/87
	PT	0.15	0.05	--	Vero	10.0	--	03/16/87
	YFV	0.25	0.08	--	Vero	10.0	--	03/31/87
	SF	0	0	--	Vero	10.1	--	01/06/87
	VV	0.2	0.07	--	Vero	32.0	--	12/18/86
	Ad	0	0	--	HEp-2	3.2	--	12/18/86
	VSV	0.2	0.07	--	L929	3.2	--	12/30/86

2360	PT	0.65	0.22	--	Vero	100.0	--	01/30/87
	YFV	0	0	--	Vero	>100.0	--	01/06/87
	YFV	0.3	0.1	--	Vero	32.0	--	03/31/87
	SF							
	VV	0	0	--	Vero	320.0	--	12/18/86
	Ad	0	0	--	HEp-2	32.0	--	12/18/86
	VSV	0	0	--	L929	10.0	--	12/30/86
2363	PT	1.8	0.6	4.2	Vero	32.0	7.6	01/30/87
	YFV	0.35	0.12	31.5	Vero	10.0	0.32	03/31/87
	SF	1.1	0.4	7.7	Vero	10.0	1.3	01/06/87
	VV	0.2	0.07	--	Vero	32.0	--	12/18/86
	Ad	0.2	0.07	--	HEp-2	32.0	--	12/18/86
	VSV	0	0	--	L929	32.0	--	12/30/86
2364	PT	1.1	0.37	--	Vero	<100.0	--	01/30/87
	PT	0.1	0.03	--	Vero	32.0	--	03/16/87
	YFV	0	0	--	Vero	32.0	--	03/31/87
	SF	0	0	--	Vero	3.2	--	01/12/87
	VV	0.5	0.2	306.5	Vero	320.0	1.0	12/18/86
	Ad	0	0	--	HEp-2	100.0	--	12/18/86
	VSV	0	0	--	L929	100.0	--	12/30/86
2365	PT	>0.8	>0.3	--	Vero	>320.0	--	02/02/87
	YFV	0	0	--	Vero	>320.0	--	03/31/87
	SF	0	0	--	Vero	>100.0	--	01/12/87
	VV	0	0	--	Vero	>320.0	--	12/18/86
	Ad	0	0	--	HEp-2	>320.0	--	12/18/86
	VSV	0	0	--	L929	>320.0	--	12/30/86
2366	PT	0.6	0.2	--	Vero	320.0	--	02/02/87
	YFV	>0.2	>0.07	--	Vero	>320.0	--	04/01/87
	SF	0	0	--	Vero	100.0	--	01/12/87
	VV	0.8	0.3	240.5	Vero	320.0	1.3	12/18/86
	Ad	0	0	--	HEp-2	320.0	--	12/18/86
	VSV	0	0	--	L929	3.2	--	12/30/86
2367	PT	2.0	0.67	--	Vero	<3.2	--	02/02/87
	YFV	0	0	--	Vero	10.0	--	04/01/87
	SF	0	0	--	Vero	<3.2	--	01/12/87
	VV	0	0	--	Vero	32.0	--	12/18/86
	Ad	0	0	--	HEp-2	32.0	--	12/18/86
	VSV	0	0	--	L929	10.0	--	12/30/86
2368	PT	0.3	0.1	--	Vero	3.2	--	02/02/87
	YFV	0.7	0.23	7.98	Vero	3.2	0.4	04/01/87
	SF	0	0	--	Vero	3.2	--	01/12/87
	VV	1.1	0.4	47.3	Vero	1.0	0.02	12/18/86
	Ad	0	0	--	HEp-2	1.0	--	12/18/86
	VSV	0	0	--	L929	3.2	--	12/30/86
2369	PT	2.0	0.67	--	Vero	100.0	--	02/02/87
	YFV	0	0	--	Vero	100.0	--	04/01/87
	SF	0	0	--	Vero	32.0	--	01/13/87
	VV	0	0	--	Vero	100.0	--	12/18/86
	Ad	0	0	--	HEp-2	100.0	--	12/18/86
	VSV	0	0	--	L929	3.2	--	12/30/86
2370	PT	0.7	0.23	--	Vero	100.0	--	02/03/87
	YFV	0	0	--	Vero	32.00	--	04/01/87

	SF	0.15	0.05	--	Vera	32.0	--	01/13/87
	VV	0.4	0.1	--	Vera	100.0	--	12/18/86
	Ad	0	0	--	HEp-2	320.0	--	12/18/86
	VSV	0	0	--	L929	10.0	--	12/30/86
2371	PT	0.4	0.13	--	Vera	32.0	--	02/03/87
	YFV	0	0	--	Vera	10.0	--	04/01/87
	SF	0.15	0.05	--	Vera	10.0	--	01/13/87
	VV	0	0	--	Vera	32.0	--	12/18/86
	Ad	0	0	--	HEp-2	100.0	--	12/18/86
	VSV	0	0	--	L929	32.0	--	12/30/86
2372	PT	0.4	0.13	--	Vera	100.0	--	02/03/87
	YFV	0.35	0.12	314.9	Vera	100.0	0.32	04/01/87
	SF	0	0	--	Vera	32.0	--	01/13/87
	VV	0	0	--	Vera	100.0	--	12/18/86
	Ad	0	0	--	HEp-2	320.0	--	12/18/86
	VSV	0	0	--	L929	100.0	--	12/30/86
2373	PT	0.8	0.27	--	Vera	100.0	--	02/03/87
	YFV	0	0	--	Vera	32.0	--	04/01/87
	SF	0	0	--	Vera	10.1	--	01/13/87
	VV	0.3	0.1	--	Vera	100.0	--	12/18/86
	Ad	0	0	--	HEp-2	320.0	--	12/18/86
	VSV	0	0	--	L929	100.0	--	12/30/86
2374	PT	0.5	0.17	288.4	Vera	100.0	0.35	02/03/87
	YFV	0.1	0.03	--	Vera	320.0	--	04/01/87
	SF	0	0	--	Vera	32.0	--	01/14/87
	VV	0	0	--	Vera	320.0	--	12/18/86
	Ad	0	0	--	HEp-2	320.0	--	12/18/86
	VSV	0.3	0.1	320.0	L929	100.0	0.3	12/30/86
2375	PT	0.48	0.16	120.7	Vera	10.0	0.08	02/04/87
	YFV	0	0	--	Vera	3.2	--	04/01/87
	SF	0.05	0.02	--	Vera	10.1	--	01/14/87
	VV	0	0	--	Vera	10.0	--	12/18/86
	Ad	0	0	--	HEp-2	32.0	--	12/18/86
	VSV	0	0	--	L929	100.0	--	12/30/86
2376	PT	0.48	0.16	275.9	Vera	10.0	0.04	02/04/87
	YFV	0	0	--	Vera	3.2	--	04/01/87
	SF	0	0	--	Vera	10.1	--	01/14/87
	VV	0	0	--	Vera	32.0	--	12/18/86
	Ad	0	0	--	HEp-2	100.0	--	12/18/86
	VSV	0	0	--	L929	100.0	--	12/30/86
2377	PT	0	0	--	Vera	10.0	--	02/04/87
	YFV	1.05	0.35	30.7	Vera	3.2	0.1	04/02/87
	SF	0.15	0.05	--	Vera	10.1	--	01/14/87
	VV	0	0	--	Vera	320.0	--	12/18/86
	Ad	0	0	--	HEp-2	32.0	--	12/18/86
	VSV	0	0	--	L929	10.0	--	12/30/86
2378	PT	0.1	0.03	--	Vera	320.0	--	02/04/87
	YFV	0.35	0.12	314.9	Vera	100.0	0.32	04/02/87
	SF	0	0	--	Vera	10.1	--	01/14/87
	VV	0	0	--	Vera	320.0	--	12/18/86
	Ad	0	0	--	HEp-2	320.0	--	12/18/86
	VSV	0	0	--	L929	320.0	--	12/18/86

2379	PT	>0.1	>0.03	--	Vero	>320.0	--	02/04/87
	YFV	0.5	0.17	326.9	Vero	100.0	0.31	04/02/87
	SF	0	0	--	Vero	>100.0	--	01/16/87
	VV	0	0	--	Vero	>320.0	--	12/18/86
	Ad	>0.3	>0.1	--	HEp-2	>320.0	--	12/18/86
	VSV	0	0	--	L929	100.0	--	12/30/86
2380	PT	0.8	0.3	--	Vero	100.0	--	02/05/87
	YFV	0	0	--	Vero	10.0	--	04/02/87
	SF	0.15	0.05	--	Vero	10.0	--	01/16/87
	VV	0.2	0.07	--	Vero	100.0	--	12/18/86
	Ad	0	0	--	HEp-2	320.0	--	12/18/86
	VSV	0	0	--	L929	>320.0	--	12/30/86
Ans-A	VV	3.0	1.0	5.5	Vero	32.0	5.8	12/18/86
C-3-deaza-AdO	VSV	2.3	0.8	5.2	L929	10.0	1.9	12/30/86
Ribavirin	Ad	1.7	0.6	64.7	HEp-2	100.0	1.5	12/18/86
Selenazole	PT	2.63	0.88	1.69	Vero	10.0	5.9	01/29/87
	PT	2.48	0.83	3.7	Vero	10.0	2.7	01/30/87
	PT	1.85	0.62	7.67	Vero	10.0	1.3	02/02/87
	PT	2.35	0.78	3.08	Vero	3.2	1.04	02/03/87
	PT	1.28	0.43	7.5	Vero	10.0	1.3	02/04/87
	PT	0.18	0.6	61.4	Vero	10.0	0.2	02/05/87
	PT	2.4	0.8	2.7	Vero	10.0	3.7	02/10/87
	PT	1.1	0.37	35.6	Vero	10.0	0.28	03/16/87
	YFV	2.8	0.93	2.23	Vero	10.0	4.49	03/31/87
	VSV	2.1	0.69	0.98	Vero	3.2	3.25	04/01/87
	VV	2.5	0.87	1.44	Vero	3.2	2.23	04/02/87
	SF	2.9	0.97	2.7	Vero	10.0	3.7	01/06/87
	SF	2.45	0.82	2.4	Vero	3.2	1.3	01/06/87
	SF	1.8	0.6	6.3	Vero	10.0	1.6	01/12/87
	SF	1.3	0.4	18.3	Vero	10.0	0.5	01/12/87
	SF	1.7	0.5	6.99	Vero	10.0	1.4	01/13/87
	SF	2.45	0.82	14.4	Vero	10.0	0.7	01/13/87
	SF	2.6	0.87	1.8	Vero	3.2	1.8	01/14/87
	SF	1.65	0.55	6.99	Vero	10.0	1.4	01/14/87
	SF	2.05	0.68	6.7	Vero	10.0	1.5	01/15/87
SF	2.7	0.9	2.8	Vero	10.0	2.6	01/16/87	
VV	2.5	0.8	7.5	Vero	3.2	0.4	12/18/86	
Ad	1.2	0.4	59.0	HEp-2	32.0	0.5	12/18/86	

VR* = Virus Rating calculated according to the method of Sidwell and Huffman (Appl. Microbiol. 22: 797-801, 1971).

UPDATED 03/30/87:ADR

SHIPMENT NO. 16

AVS NO.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
2361	PT	>0.1	>0.03	--	Vero	>320.0	--	02/12/87
	YFV	0	0	--	Vero	>320.0	--	05/04/87
	SF	0	0	--	Vero	>100.0	--	01/19/87
	VV	0.3	0.1	--	Vero	320.0	--	01/08/87
	Ad	>0.3	>0.1	--	HEp-2	>320.0	--	01/08/87
	VSV	0	0	--	L929	320.0	--	01/06/87
2362	PT	0	0	--	Vero	>320.0	--	02/12/87
	YFV	0	0	--	Vero	>100.0	--	05/04/87
	SF	0	0	--	Vero	>100.0	--	01/19/87
	VV	0	0	--	Vero	>320.0	--	01/08/87
	Ad	0	0	--	HEp-2	>320.0	--	01/08/87
	VSV	0	0	--	L929	320.0	--	01/06/87
2381	PT	1.0	0.33	--	Vero	32.0	--	02/05/87
	YFV	0.5	0.17	94.9	Vero	10.0	0.11	04/02/87
	SF	0.2	0.07	--	Vero	10.0	--	01/12/87
	VV	0.3	0.1	--	Vero	32.0	--	01/08/87
	Ad	0.3	0.08	--	HEp-2	100.0	--	01/08/87
	VSV	0	0	--	L929	100.0	--	01/06/87
2382	PT	0	0	--	Vero	<10.0	--	02/05/87
	YFV	0.6	0.2	2.98	Vero	10.32	0.11	04/02/87
	SF	0.1	0.03	--	Vero	3.2	--	01/12/87
	VV	0.1	0.03	--	Vero	3.2	--	01/08/87
	Ad	0	0	--	HEp-2	32.0	--	01/08/87
	VSV	0	0	--	L929	3.2	--	01/06/87
2383	PT	0.39	0.13	--	Vero	<100.0	--	02/05/87
	YFV	0	0	--	Vero	10.0	--	04/02/87
	SF	0	0	--	Vero	<100.0	--	01/12/87
	VV	0	0	--	Vero	100.0	--	01/08/87
	Ad	0	0	--	HEp-2	3.2	--	01/08/87
	VSV	0	0	--	L929	10.0	--	01/06/87
2384	PT	1.1	0.37	104.3	Vero	<320.0	3.07	02/05/87
	YFV	0.2	0.07	--	Vero	32.0	--	04/02/87
	SF	0.4	0.13	96.9	Vero	32.0	0.33	03/18/87
	VV	0.7	0.2	320.0	Vero	100.0	0.3	01/08/87
	Ad	0	0	--	HEp-2	320.0	--	01/08/87
	VSV	0	0	--	L929	100.0	--	01/06/87
2385	PT	>0.4	>0.13	--	Vero	>320.0	--	03/17/87
	YFV	0	0	--	Vero	>320.0	--	04/02/87
	SF	0	0	--	Vero	>100.0	--	01/12/87
	VV	>0.15	>0.05	--	Vero	>320.0	--	01/29/87
	Ad	0	0	--	HEp-2	>320.0	--	01/29/87
	VSV	0	0	--	L929	100.0	--	01/06/87
2386	PT	1.0	0.33	68.75	Vero	32.0	0.47	03/17/87
	YFV	0.75	0.25	59.6	Vero	10.0	0.17	04/02/87
	SF	0.4	0.13	96.9	Vero	100.0	1.03	01/13/87
	VV	0	0	--	Vero	32.0	--	01/08/87

	Ad	0	0	--	HEp-2	32.0	--	01/08/87
	VSV	0	0	--	L929	32.0	--	01/06/87
2387	PT	0.23	0.08	--	Vero	32.0	--	03/17/87
	YFV	0.35	0.12	--	Vero	10.0	--	04/02/87
	SF	0.3	0.1	--	Vero	<100.0	--	01/13/87
	VV	0.75	0.25	--	Vero	100.0	--	01/29/87
	Ad	0	0	--	HEp-2	100.0	--	01/08/87
	VSV	0	0	--	L929	10.0	--	01/06/87
2388	PT	0.88	0.29	269.1	Vero	320.0	1.2	03/17/87
	YFV	0	0	--	Vero	>320.0	--	04/29/87
	SF	0	0	--	Vero	100.0	--	01/13/87
	VV	0.1	0.03	--	Vero	100.0	--	01/08/87
	Ad	0	0	--	HEp-2	320.0	--	01/08/87
	VSV	0	0	--	L929	>320.0	--	01/06/87
2389	PT	0.7	0.23	--	Vero	<320.0	--	03/17/87
	YFV	0	0	--	Vero	100.0	--	04/29/87
	SF	0	0	--	Vero	100.0	--	01/13/87
	VV	0.05	0.02	--	Vero	320.0	--	01/08/87
	Ad	>0.3	>0.1	--	HEp-2	>320.0	--	01/08/87
	VSV	0.05	0.02	--	L929	320.0	--	01/06/87
2390	PT	1.2	0.4	--	Vero	100.0	--	02/09/87
	YFV	0.15	0.05	--	Vero	10.0	--	04/29/87
	SF	0.45	0.15	90.5	Vero	10.0	0.1	01/13/87
	VV	0	0	--	Vero	10.0	--	01/08/87
	Ad	0.2	0.05	--	HEp-2	10.0	--	01/08/87
	VSV	0.2	0.07	--	L929	<10.32	--	01/06/87
	VSV	0	0	--	L929	0.10	--	01/16/87
2391	PT	0.5	0.17	--	Vero	320.0	--	02/09/87
	YFV	0	0	--	Vero	32.0	--	04/29/87
	SF	0.25	0.08	--	Vero	10.0	--	01/13/87
	VV	0.2	0.07	--	Vero	32.0	--	01/08/87
	Ad	0	0	--	HEp-2	32.0	--	01/08/87
	VSV	0	0	--	L929	32.0	--	01/06/87
2392	PT	0.58	0.19	--	Vero	320.0	--	02/09/87
	YFV	0	0	--	Vero	100.0	--	04/29/87
	SF	0	0	--	Vero	>100.0	--	01/13/87
	VV	0	0	--	Vero	320.0	--	01/08/87
	Ad	0	0	--	HEp-2	100.0	--	01/08/87
	VSV	0	0	--	L929	100.0	--	01/06/87
2393	PT	1.0	0.33	--	Vero	320.0	--	02/09/87
	PT	0.5	0.17	205.3	Vero	100.0	0.49	03/16/87
	YFV	0	0	--	Vero	320.0	--	04/29/87
	SF	0	0	--	Vero	>100.0	--	01/13/87
	VV	0.1	0.03	--	Vero	320.0	--	01/08/87
	Ad	0	0	--	HEp-2	>320.0	--	01/08/87
	VSV	0	0	--	L929	>320.0	--	01/06/87
2394	PT	>0.65	>0.22	--	Vero	<10.0	--	02/09/87
	PT	0	0	--	Vero	1.0	--	03/16/87
	YFV	0	0	--	Vero	10.0	--	04/29/87
	SF	0	0	--	Vero	<3.2	--	01/14/87
	VV	0.9	0.3	--	Vero	3.2	--	01/08/87
	Ad	0	0	--	HEp-2	100.0	--	01/08/87

	VSV	0	0	--	L929	320.0	--	01/06/87
2395	PT	0	0	--	Vero	10.0	--	03/16/87
	YFV	0	0	--	Vero	10.0	--	04/29/87
	SF	0.3	0.1	--	Vero	<10.0	--	01/14/87
	VV	0.1	0.03	--	Vero	32.0	--	01/08/87
	Ad	0	0	--	HEp-2	32.0	--	01/08/87
	VSV	0.05	0.02	--	L929	32.0	--	01/06/87
2396	PT							
	YFV	0	0	--	Vero	320.0	--	04/29/87
	SF	0	0	--	Vero	>100.0	--	01/14/87
	VV	0	0	--	Vero	>320.0	--	01/08/87
	Ad	>0.2	>0.07	--	HEp-2	>320.0	--	01/08/87
	VSV	0	0	--	L929	>320.0	--	01/06/87
2397	PT	>0.7	>0.23	--	Vero	>100.0	--	02/10/87
	YFV	0.4	0.13	--	Vero	10.0	--	04/29/87
	SF	0	0	--	Vero	>100.0	--	01/14/87
	VV	0	0	--	Vero	320.0	--	01/08/87
	Ad	0	0	--	HEp-2	100.0	--	01/08/87
	VSV	0	0	--	L929	32.0	--	01/06/87
2398	PT	0.7	0.23	310.1	Vero	100.0	0.3	02/10/87
	YFV	0	0	--	Vero	>320.0	--	04/29/87
	SF	0.15	0.05	--	Vero	100.0	--	01/14/87
	VV	0.1	0.03	--	Vero	320.0	--	01/08/87
	Ad	0	0	--	HEp-2	100.0	--	01/08/87
	VSV	0	0	--	L929	320.0	--	01/06/87
2399	PT	0	0	--	Vero	320.0	--	02/10/87
	YFV	0	0	--	Vero	>320.0	--	05/01/87
	SF	0	0	--	Vero	>100.0	--	01/14/87
	VV	>0.5	>0.2	--	Vero	>320.0	--	01/08/87
	Ad	0	0	--	HEp-2	>320.0	--	01/08/87
	VSV	0	0	--	L929	>320.0	--	01/06/87
2400	PT	0.3	0.1	--	Vero	>320.0	--	02/11/87
	YFV	0	0	--	Vero	>320.0	--	05/01/87
	SF	0	0	--	Vero	100.0	--	01/14/87
	VV	0	0	--	Vero	>320.0	--	01/29/87
	Ad	0	0	--	HEp-2	>320.0	--	01/29/87
	VSV	0	0	--	L929	320.0	--	01/06/87
2401	PT	0.45	0.15	--	Vero	10.0	--	02/11/87
	YFV	1.2	0.4	--	Vero	10.0	--	05/01/87
	SF	0	0	--	Vero	1.0	--	01/14/87
	VV	0	0	--	Vero	1.0	--	01/08/87
	Ad	0	0	--	HEp-2	1.0	--	01/08/87
	VSV	0	0	--	L929	3.2	--	01/06/87
2402	PT	0.7	0.23	9.1	Vero	<32.0	3.5	02/11/87
	YFV	0.3	0.1	3.2	Vero	1.0	0.31	05/01/87
	SF	0.15	0.05	--	Vero	10.0	--	01/16/87
	VV	0	0	--	Vero	10.0	--	02/05/87
	Ad	0	0	--	HEp-2	32.0	--	02/05/87
	VSV	0	0	--	L929	10.0	--	01/06/87
2403	PT	0.7	0.23	--	Vero	<100.0	--	02/11/87
	YFV	0	0	--	Vero	100.0	--	05/01/87

	SF	0	0	--	Vero	10.0	--	01/16/87
	VV	1.1	0.4	69.4	Vero	100.0	1.4	01/08/87
	Ad	0	0	--	HEp-2	100.0	--	01/08/87
	VSV	0	0	--	L929	100.0	--	01/06/87
2404	PT	0	0	--	Vero	32.0	--	04/28/87
	YFV	0	0	--	Vero	32.0	--	05/01/87
	SF	0	0	--	Vero	<10.0	--	01/16/87
	VV	0	0	--	Vero	10.0	--	01/08/87
	Ad	0	0	--	HEp-2	10.0	--	01/08/87
	VSV	0	0	--	L929	32.0	--	01/06/87
2405	PT	0.55	0.18	--	Vero	10.0	--	02/12/87
	YFV	0	0	--	Vero	3.2	--	05/01/87
	SF	0.55	0.18	6.99	Vero	10.0	1.4	01/19/87
	VV	0.65	0.22	6.3	Vero	10.0	1.6	01/29/87
	Ad	0.15	0.05	--	HEp-2	10.0	--	01/29/87
	VSV	0	0	--	L929	3.2	--	01/06/87
2406	PT	>0.5	>0.17	--	Vero	>320.0	--	02/12/87
	YFV	0	0	--	Vero	100.0	--	05/01/87
	SF	0	0	--	Vero	100.0	--	01/19/87
	VV	0.3	0.1	--	Vero	100.0	--	01/08/87
	Ad	0	0	--	HEp-2	32.0	--	01/08/87
	VSV	0	0	--	L929	1.0	--	01/06/87
2407	PT	0.15	0.05	140.3	Vero	10.0	0.07	02/12/87
	YFV	0	0	--	Vero	<32.0	--	05/01/87
	SF	0.3	0.1	3.2	Vero	3.2	1.0	01/19/87
	VV	0.4	0.13	9.98	Vero	10.0	1.0	01/29/87
	Ad	0.3	0.1	3.2	HEp-2	3.2	1.0	01/29/87
	VSV	0	0	--	L929	3.2	--	01/06/87
2408	PT	1.3	0.43	--	Vero	320.0	--	02/12/87
	YFV	0	0	--	Vero	320.0	--	05/01/87
	SF	0.3	0.1	100.0	Vero	100.0	1.0	01/19/87
	VV	0.55	0.18	300.3	Vero	320.0	1.1	01/29/87
	Ad	0.25	0.08	--	HEp-2	320.0	--	01/29/87
	VSV	0.2	0.07	--	L929	100.0	--	01/06/87
2409	PT	0.65	0.22	8.77	Vero	10.0	1.1	02/12/87
	YFV	0	0	--	Vero	3.2	--	05/01/87
	SF	0.6	0.2	9.3	Vero	10.0	1.1	01/19/87
	VV	0.6	0.2	20.0	Vero	32.0	1.6	01/29/87
	Ad	0.3	0.1	--	HEp-2	3.2	--	02/12/87
	Ad	1.45	0.48	2.79	HEp-2	10.0	3.6	04/10/87
	VSV	0	0	--	L929	10.0	--	01/06/87
2410	PT	0.1	0.03	--	Vero	<100.0	--	02/12/87
	YFV	0.1	0.03	--	Vero	10.0	--	05/04/87
	SF	0	0	--	Vero	10.0	--	01/19/87
	VV	0.1	0.03	--	Vero	32.0	--	01/29/87
	Ad	0	0	--	HEp-2	10.0	--	01/29/87
	VSV	0	0	--	L929	32.0	--	01/06/87
Ara-A	VV	3.7	1.2	1.9	Vero	32.0	17.1	01/08/87
	VV	3.2	1.1	2.8	Vero	32.0	11.3	01/29/87
	VV	3.2	1.1	3.2	Vero	32.0	9.9	02/05/87
C-3-Deaza- AdD	VSV	1.4	0.5	6.9	L929	3.2	0.5	01/06/87

	VSV	1.3	0.43	18.5	L929	3.2	0.2	01/16/87
Ribavirin	Ad	1.3	0.4	32.0	HEp-2	100.0	3.1	01/08/87
	Ad	1.4	0.47	64.0	HEp-2	100.0	1.6	01/29/87
	Ad	1.65	0.55	31.1	HEp-2	100.0	3.2	02/05/87
	Ad	1.45	0.48	48.3	HEp-2	100.0	2.1	02/12/87
	Ad	1.55	0.52	35.9	HEp-2	100.0	2.8	04/10/87
	PT	1.7	0.57	20.1	Vero	100.0	4.97	04/28/87
Selenazole	PT	0.18	0.6	61.4	Vero	10.0	0.2	02/05/87
	PT	1.55	0.52	28.6	Vero	32.0	1.1	02/09/87
	PT	2.4	0.8	2.7	Vero	10.0	3.7	02/10/87
	PT	1.68	0.56	6.2	Vero	10.0	1.6	02/11/87
	PT	1.5	0.5	10.5	Vero	10.0	0.95	02/12/87
	PT	1.1	0.37	35.57	Vero	10.0	0.28	03/16/87
	PT	0.95	0.32	5.8	Vero	3.2	0.55	03/17/87
	YFV	2.5	0.83	1.4	Vero	3.2	2.23	04/02/87
	YFV	2.45	0.82	2.6	Vero	1.0	0.39	04/29/87
	YFV	2.55	0.85	2.1	Vero	1.0	0.48	05/01/87
	YFV	2.85	0.95	0.96	Vero	1.0	1.04	05/04/87
	SF	1.8	0.6	6.3	Vero	10.0	1.6	01/12/87
	SF	1.3	0.4	18.3	Vero	10.0	0.5	01/12/87
	SF	1.7	0.6	6.99	Vero	10.0	1.4	01/13/87
	SF	1.45	0.48	14.4	Vero	10.0	0.7	01/13/87
	SF	2.6	0.87	1.8	Vero	3.2	1.8	01/14/87
	SF	1.65	0.55	6.99	Vero	10.0	1.4	01/14/87
	SF	2.7	0.9	2.8	Vero	10.0	3.6	01/16/87
	SF	1.9	0.63	6.8	Vero	3.2	0.5	01/19/87
	SF	1.45	0.48	14.4	Vero	3.2	0.2	03/18/87
	VV	3.0	1.0	3.8	Vero	3.2	0.8	01/08/87
	VV	2.55	0.85	3.2	Vero	3.2	1.0	01/29/87
	VV	2.35	0.78	6.4	Vero	10.0	1.6	02/05/87
	Ad	1.1	0.4	9.63	HEp-2	10.0	1.0	01/08/87
	Ad	1.4	0.47	10.3	HEp-2	32.0	3.1	01/29/87
	Ad	1.4	0.47	35.7	HEp-2	100.0	2.8	02/05/87
	Ad	1.4	0.47	14.5	HEp-2	32.0	2.2	02/12/87
	Ad	1.2	0.38	30.8	HEp-2	32.0	1.0	04/10/87

VR* = Virus Rating calculated according to the method of Sidwell and Huffman (Appl. Microbiol. 22: 797-801, 1971).

UPDATED 05/25/87:ADB

SHIPMENT NO. 17

AVS NO.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
1569	PT	0.77	0.26	576.1	Vero	320.0	0.56	02/17/87
	YFV	0	0	--	Vero	100.0	--	05/04/87
	JE	0	0	--	Vero	100.0	--	05/07/87
	SF	1.4	0.47	22.7	Vero	32.0	1.4	02/25/87
	VV	0.15	0.05	--	Vero	100.0	--	01/29/87
	Ad	0	0	--	HEp-2	10.0	--	01/29/87
	VSV	0	0	--	L929	32.0	--	01/20/87
2411	PT	0.77	0.26	--	Vero	32.0	--	02/17/87
	YFV	0	0	--	Vero	32.0	--	05/04/87
	JE	0	0	--	Vero	32.0	--	05/07/87
	SF	0	0	--	Vero	32.0	--	02/25/87
	VV	0	0	--	Vero	32.0	--	01/29/87
	Ad	0.05	0.02	--	HEp-2	10.0	--	01/29/87
	VSV	0.6	0.2	239.0	L929	100.0	0.42	01/20/87
2412	PT	0.8	0.27	147.3	Vero	100.0	0.68	02/17/87
	YFV	0	0	--	Vero	10.0	--	05/04/87
	JE	0	0	--	Vero	100.0	--	05/07/87
	SF	0.9	0.3	29.5	Vero	32.0	1.09	02/25/87
	VV	0	0	--	Vero	100.0	--	01/29/87
	Ad	0	0	--	HEp-2	32.0	--	01/29/87
	VSV	0	0	--	L929	320.0	--	01/20/87
2413	PT	0.5	0.17	94.7	Vero	10.0	0.1	02/17/87
	YFV	0	0	--	Vero	3.2	--	05/04/87
	JE	0	0	--	Vero	32.0	--	05/07/87
	SF	0.95	0.32	21.9	Vero	3.2	0.15	02/25/87
	VV	0.35	0.12	--	Vero	10.0	--	01/29/87
	Ad	0	0	--	HEp-2	100.0	--	01/29/87
	VSV	0	0	--	L929	32.0	--	01/20/87
2414	PT	0.1	0.03	--	Vero	100.0	--	02/17/87
	YFV	0	0	--	Vero	100.0	--	05/04/87
	JE	0	0	--	Vero	100.0	--	05/07/87
	SF	0.25	0.08	--	Vero	10.0	--	02/25/87
	VV	0.25	0.08	--	Vero	32.0	--	01/29/87
	Ad	0.25	0.08	--	HEp-2	100.0	--	01/29/87
	VSV	0.2	0.05	--	L929	32.0	--	01/20/87
2415	PT	0.5	0.17	--	Vero	100.0	--	02/18/87
	YFV	0	0	--	Vero	320.0	--	05/04/87
	JE	0	0	--	Vero	100.0	--	05/07/87
	SF	0	0	--	Vero	100.0	--	02/26/87
	VV	0	0	--	Vero	100.0	--	01/29/87
	Ad	0	0	--	HEp-2	320.0	--	01/29/87
	VSV	0	0	--	L929	320.0	--	01/20/87
2416	PT	0.3	0.1	--	Vero	10.0	--	02/18/87
	YFV	0	0	--	Vero	1.0	--	05/04/87
	JE	0	0	--	Vero	32.0	--	05/07/87
	SF	0	0	--	Vero	3.2	--	02/26/87
	VV	0	0	--	Vero	32.0	--	01/29/87

	Ad	0	0	--	HEp-2	32.0	--	01/29/87
	VSV	0	0	--	L929	100.0	--	01/20/87
2417	PT	0.34	0.11	--	Vera	100.0	--	05/15/87
	YFV	0.4	0.13	310.1	Vera	100.0	0.32	05/04/87
	JE	0	0	--	Vera	100.0	--	05/07/87
	SF	0	0	--	Vera	100.0	--	02/26/87
	VV	0.05	0.02	--	Vera	320.0	--	02/05/87
	Ad	0	0	--	HEp-2	100.0	--	02/05/87
	VSV	0	0	--	L929	320.0	--	01/20/87
2418	PT	0.6	0.2	--	Vera	100.0	--	05/15/87
	YFV	0	0	--	Vera	100.0	--	05/05/87
	JE	0	0	--	Vera	100.0	--	05/08/87
	SF	0	0	--	Vera	320.0	--	02/26/87
	VV	0	0	--	Vera	320.0	--	02/05/87
	Ad	0.1	0.03	--	HEp-2	10.0	--	02/05/87
	VSV	0	0	--	L929	320.0	--	01/20/87
2419	PT	1.07	0.36	293.4	Vera	320.0	1.1	02/18/87
	YFV	0.2	0.67	--	Vera	100.0	--	05/05/87
	JE	0	0	--	Vera	>320.0	--	05/08/87
	SF	0	0	--	Vera	100.0	--	02/26/87
	VV	0	0	--	Vera	>320.0	--	02/05/87
	Ad	>0.5	>0.17	--	HEp-2	>320.0	--	02/05/87
	VSV	0	0	--	L929	320.0	--	01/20/87
2420	PT	1.2	0.4	--	Vera	100.0	--	05/15/87
	YFV	0.75	0.25	178.5	Vera	320.0	1.79	05/05/87
	JE	0.1	0.03	--	Vera	100.0	--	05/08/87
	SF	0	0	--	Vera	100.0	--	02/26/87
	VV	0	0	--	Vera	>320.0	--	02/05/87
	Ad	0	0	--	HEp-2	>320.0	--	02/05/87
	VSV	0	0	--	L929	320.0	--	01/20/87
2421	PT	1.03	0.34	164.1	Vera	10.0	0.06	02/18/87
	YFV	0.6	0.2	29.79	Vera	3.2	0.1	05/05/87
	JE	0	0	--	Vera	32.0	--	05/08/87
	SF	0	0	--	Vera	10.0	--	02/26/87
	VV	0	0	--	Vera	32.0	--	01/29/87
	Ad	0	0	--	HEp-2	32.0	--	01/29/87
	VSV	0	0	--	L929	10.0	--	01/20/87
2422	PT	0.58	0.19	--	Vera	100.0	--	02/18/87
	YFV	0	0	--	Vera	32.0	--	05/05/87
	JE	0	0	--	Vera	100.0	--	05/08/87
	SF	0	0	--	Vera	100.0	--	02/26/87
	VV	0	0	--	Vera	100.0	--	02/05/87
	Ad	0	0	--	HEp-2	32.0	--	02/05/87
	VSV	0	0	--	L929	100.0	--	01/20/87
2423	PT	1.62	0.54	219.3	Vera	100.0	0.46	03/20/87
	YFV	0.95	0.32	135.9	Vera	320.0	2.35	05/05/87
	JE	0.25	0.08	--	Vera	320.0	--	05/08/87
	SF	0	0	--	Vera	10.0	--	02/27/87
	VV	0	0	--	Vera	32.0	--	02/05/87
	Ad	0	0	--	HEp-2	32.0	--	02/05/87
	VSV	0	0	--	L929	32.0	--	01/20/87
2424	PT	1.45	0.48	298.4	Vera	100.0	0.34	03/20/87

	YFV	0.1	0.03	--	Vero	100.0	--	05/05/87
	JE	0	0	--	Vero	100.0	--	05/06/87
	SF	0.4	0.13	96.9	Vero	32.0	0.3	02/27/87
	VV	0.2	0.07	--	Vero	320.0	--	02/05/87
	Ad	0	0	--	HEp-2	320.0	--	02/05/87
	VSV	0.5	0.17	307.0	L929	320.0	1.0	01/20/87
2425	PT	0.68	0.23	--	Vero	10.0	--	03/20/87
	YFV	0	0	--	Vero	32.0	--	05/05/87
	JE	0	0	--	Vero	100.0	--	05/08/87
	SF	1.05	0.35	77.1	Vero	10.0	0.13	02/27/87
	VV	0.45	0.15	95.8	Vero	32.0	0.3	02/05/87
	Ad	0	0	--	HEp-2	320.0	--	02/05/87
	VSV	0	0	--	L929	320.0	--	01/20/87
2426	PT	0.87	0.29	7.16	Vero	10.0	1.4	03/20/87
	YFV	0.3	0.1	--	Vero	10.0	--	05/05/87
	JE	0	0	--	Vero	10.0	--	05/08/87
	SF	0.3	0.1	32.0	Vero	10.0	3.1	02/27/87
	VV	0	0	--	Vero	10.0	--	02/05/87
	Ad	0.2	0.07	--	HEp-2	10.0	--	02/05/87
	VSV	0	0	--	L929	32.0	--	01/20/87
2427	PT	0.53	0.18	--	Vero	3.2	--	03/20/87
	YFV	0	0	--	Vero	3.2	--	05/05/87
	JE	0	0	--	Vero	<10.0	--	05/08/87
	SF	0	0	--	Vero	10.0	--	02/27/87
	VV	0.05	0.02	--	Vero	3.2	--	02/05/87
	Ad	0.4	0.13	3.2	HEp-2	3.2	1.0	02/05/87
	VSV	0	0	--	L929	100.0	--	01/20/87
2428	PT	0.37	0.12	--	Vero	<100.0	--	03/20/87
	YFV	0	0	--	Vero	32.0	--	05/05/87
	JE	0	0	--	Vero	100.0	--	05/12/87
	SF	0.25	0.08	--	Vero	10.0	--	02/27/87
	VV	0.7	0.23	78.2	Vero	32.0	0.4	01/29/87
	Ad	0.15	0.05	--	HEp-2	10.0	--	01/29/87
	VSV	1.0	0.33	57.5	L929	100.0	1.7	01/20/87
2429	PT	0.32	0.11	--	Vero	10.0	--	03/20/87
	YFV	0	0	--	Vero	3.2	--	05/06/87
	JE	0	0	--	Vero	<32.0	--	05/12/87
	SF	0.15	0.05	--	Vero	3.2	--	02/27/87
	VV	0.05	0.02	--	Vero	10.0	--	02/05/87
	Ad	0.15	0.05	--	HEp-2	10.0	--	02/05/87
	VSV	0	0	--	L929	32.0	--	01/20/87
2430	PT	0.58	0.19	--	Vero	<100.0	--	03/20/87
	YFV	0	0	--	Vero	32.0	--	05/06/87
	JE	0.2	0.07	--	Vero	32.0	--	05/12/87
	SF	0	0	--	Vero	100.0	--	02/27/87
	VV	0	0	--	Vero	10.0	--	02/05/87
	Ad	0.15	0.05	--	HEp-2	10.0	--	02/05/87
	VSV	0	0	--	L929	32.0	--	01/20/87
2431	PT	0.52	0.17	--	Vero	<100.0	--	03/19/87
	YFV	0	0	--	Vero	32.0	--	05/06/87
	JE	0	0	--	Vero	100.0	--	05/12/87
	SF	0.35	0.12	--	Vero	32.0	--	03/02/87
	VV	0.15	0.05	--	Vero	100.0	--	02/05/87

	Ad	0	0	--	HEp-2	100.0	--	02/05/87
	VSV	0.8	0.27	98.0	L929	320.0	1.1	01/20/87
2432	(AIDS Screen Only)							
2433	PT	>0.12	>0.04	--	Vero	>100.0	--	03/19/87
	YFV	0	0	--	Vero	100.0	--	05/06/87
	JE	1.5	0.5	93.2	Vero	320.0	3.4	05/12/87
	SF	0	0	--	Vero	>320.0	--	03/02/87
	VV	0	0	--	Vero	100.0	--	01/29/87
	Ad	0	0	--	HEp-2	100.0	--	01/29/87
	VSV	0.25	0.08	--	L929	100.0	--	01/20/87
2434	PT	0.76	0.25	--	Vero	320.0	--	03/19/87
	YFV	0	0	--	Vero	320.0	--	05/06/87
	JE	>0.5	>0.17	--	Vero	>320.0	--	05/12/87
	SF	0	0	--	Vero	32.0	--	03/02/87
	VV	0	0	--	Vero	>320.0	--	01/29/87
	Ad	0	0	--	HEp-2	>320.0	--	01/29/87
	VSV	0.3	0.1	--	L929	320.0	--	01/20/87
2435	PT	0.61	0.2	--	Vero	100.0	--	03/19/87
	YFV	0	0	--	Vero	32.0	--	05/06/87
	JE	0.05	0.02	--	Vero	<100.0	--	05/12/87
	SF	0	0	--	Vero	10.0	--	03/02/87
	VV	0	0	--	Vero	320.0	--	02/05/87
	Ad	0.17	0.06	--	HEp-2	32.0	--	02/05/87
	VSV	0.6	0.2	93.0	L929	32.0	0.3	01/20/87
2436	PT	0.6	0.2	--	Vero	32.0	--	03/19/87
	YFV	0	0	--	Vero	>320.0	--	05/06/87
	JE	0	0	--	Vero	32.0	--	05/12/87
	SF	0.15	0.05	--	Vero	10.0	--	03/02/87
	VV	0.25	0.08	--	Vero	10.0	--	01/29/87
	VV	0.2	0.07	--	Vero	10.0	--	02/05/87
	Ad	0	0	--	HEp-2	10.0	--	01/29/87
	Ad	0	0	--	Hep-2	32.0	--	02/05/87
	VSV	0	0	--	L929	32.0	--	01/20/87
2437	PT	1.3	0.43	--	Vero	100.0	--	03/19/87
	PT	0.42	0.14	--	Vero	100.0	--	05/15/87
	YFV	0.15	0.05	--	Vero	100.0	--	05/06/87
	JE	0.3	0.01	--	Vero	100.0	--	05/12/87
	SF	0	0	--	Vero	32.0	--	03/02/87
	VV	0.1	0.3	--	Vero	320.0	--	02/05/87
	Ad	0.6	0.2	--	HEp-2	320.0	--	02/05/87
	VSV	0	0	--	L929	320.0	--	01/20/87
2438	PT	0.65	0.22	--	Vero	10.0	--	03/19/87
	YFV	0	0	--	Vero	100.0	--	05/06/87
	JE	0	0	--	Vero	320.0	--	05/12/87
	SF	0	0	--	Vero	10.0	--	03/02/87
	VV	0	0	--	Vero	100.0	--	02/05/87
	Ad	0	0	--	HEp-2	1.0	--	02/05/87
	VSV	0	0	--	L929	32.0	--	01/20/87
2439	PT	0.55	0.18	--	Vero	32.0	--	03/19/87
	YFV	0	0	--	Vero	32.0	--	05/06/87
	JE	0	0	--	Vero	32.0	--	05/12/87
	SF	0	0	--	Vero	10.0	--	03/02/87

	VV	0.3	0.1	--	Vero	32.0	--	02/05/87
	Ad	0	0	--	HEp-2	10.0	--	02/05/87
	VSV	0.6	0.2	93.0	L929	100.0	1.1	01/20/87
2440	PT	1.03	0.34	--	Vero	100.0	--	02/23/87
	YFV	0	0	--	Vero	<100.0	--	05/06/87
	JE	0	0	--	Vero	<100.0	--	05/13/87
	SF	0	0	--	Vero	<100.0	--	03/03/87
	VV	0.15	0.05	--	Vero	100.0	--	02/05/87
	Ad	0.45	0.15	95.8	HEp-2	100.0	1.0	02/05/87
	VSV	0.75	0.25	17.8	L929	32.0	1.8	01/20/87
	**VSV	N/A	N/A	4.93	L929	3.2	0.65	02/18/87
Ara-A	VV	3.2	1.1	2.8	Vero	32.0	11.3	01/29/87
	VV	3.2	1.1	3.2	Vero	32.0	9.9	02/05/87
C-3-Deaza- Ado	VSV	2.2	0.73	4.9	L929	10.0	2.0	01/20/87
Ribavirin	PT	2.74	0.91	7.0	Vero	100.0	14.2	05/15/87
	Ad	1.4	0.47	64.0	HEp-2	100.0	1.6	01/29/87
	Ad	1.65	0.55	31.1	HEp-2	100.0	3.2	02/05/87
Selena- zole	PT	1.68	0.56	7.2	Vero	10.0	1.4	02/17/87
	PT	2.2	0.73	5.08	Vero	10.0	2.0	02/18/87
	PT	2.03	0.68	4.2	Vero	10.0	2.4	02/23/87
	PT	0.8	0.27	33.36	Vero	10.0	0.3	03/19/87
	PT	1.64	0.55	25.42	Vero	10.0	0.4	03/20/87
	YFV	2.85	0.95	0.96	Vero	1.0	1.04	05/04/87
	YFV	3.0	1.0	0.7	Vero	1.0	1.4	05/05/87
	YFV	2.55	0.85	1.59	Vero	3.2	2.0	05/06/87
	JE	1.95	0.65	2.9	Vero	10.0	3.5	05/06/87
	JE	2.15	0.72	0.9	Vero	3.2	3.6	05/07/87
	JE	2.65	0.88	5.7	Vero	10.0	1.8	05/08/87
	JE	2.59	0.86	1.7	Vero	3.2	1.9	05/12/87
	JE	3.24	1.08	0.66	Vero	3.2	4.9	05/13/87
	SF	2.55	0.85	0.92	Vero	3.2	3.5	02/25/87
	SF	2.1	0.7	3.2	Vero	3.2	1.0	02/26/87
	SF	1.8	0.6	9.3	Vero	10.0	1.1	02/27/87
	SF	1.0	0.33	22.9	Vero	1.0	0.04	03/02/87
	SF	2.3	0.77	9.8	Vero	10.0	1.0	03/03/87
	VV	2.55	0.85	3.2	Vero	3.2	1.0	01/29/87
	VV	2.35	0.78	6.4	Vero	10.0	1.6	02/05/87
	Ad	1.4	0.47	10.3	HEp-2	32.0	3.1	01/29/87
	Ad	1.4	0.47	35.7	HEp-2	100.0	2.8	02/05/87

VR* = Virus Rating calculated according to the method of Sidwell and Huffmar (Appl. Microbiol. 22: 797-801, 1971).

**PLAQUE REDUCTION ASSAY.

UPDATED 08/10/87:ADB

SHIPMENT NO. 18

AVS NO.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
2441	PT	0.5	0.17	--	Vero	100.0	--	02/23/87
	YFV	0.4	0.13	303.5	Vero	32.0	0.11	05/07/87
	JE	0.8	0.27	79.5	Vero	100.0	1.26	05/13/87
	SF	0	0	--	Vero	100.0	--	03/03/87
	VV	0	0	--	Vero	320.0	--	02/12/87
	Ad	0	0	--	HEp-2	320.0	--	02/12/87
	VSV	0	0	--	L929	100.0	--	02/06/87
2442	PT	0.25	0.08	--	Vero	100.0	--	02/23/87
	YFV	0.15	0.05	--	Vero	100.0	--	05/07/87
	JE	0.098	0.033	--	Vero	100.0	--	05/13/87
	SF	0	0	--	Vero	100.0	--	03/03/87
	VV	0	0	--	Vero	32.0	--	02/12/87
	Ad	0	0	--	HEp-2	100.0	--	02/12/87
	VSV	0	0	--	L929	100.0	--	02/06/87
2443	PT	0.23	0.08	316.7	Vero	100.0	0.3	02/23/87
	YFV	0	0	--	Vero	1.0	--	05/07/87
	JE	0	0	--	Vero	100.0	--	05/13/87
	SF	0	0	--	Vero	320.0	--	03/03/87
	VV	0.3	0.1	--	Vero	320.0	--	02/12/87
	Ad	0.1	0.03	--	HEp-2	320.0	--	02/12/87
	VSV	0	0	--	L929	320.0	--	02/06/87
2444	PT	0	0	--	Vero	10.0	--	02/23/87
	YFV	0	0	--	Vero	32.0	--	05/07/87
	JE	0	0	--	Vero	320.0	--	05/13/87
	SF	0	0	--	Vero	100.0	--	03/03/87
	VV	0	0	--	Vero	320.0	--	02/12/87
	Ad	0	0	--	HEp-2	100.0	--	02/12/87
	VSV	0	0	--	L929	32.0	--	02/06/87
2445	PT	0.53	0.18	--	Vero	320.0	--	02/23/87
	YFV	0	0	--	Vero	32.0	--	05/07/87
	JE	0	0	--	Vero	320.0	--	05/13/87
	SF	0	0	--	Vero	32.0	--	03/03/87
	VV	0	0	--	Vero	100.0	--	03/12/87
	Ad	0	0	--	HEp-2	100.0	--	03/12/87
	VSV	0	0	--	L929	100.0	--	02/06/87
2446 (AIDS SCREEN ONLY)								
2447	PT	0.45	0.15	--	Vero	32.0	--	02/23/87
	YFV	0.3	0.1	--	Vero	100.0	--	05/07/87
	JE	0.49	0.16	--	Vero	100.0	--	05/13/87
	SF	0	0	--	Vero	320.0	--	03/03/87
	VV	>0.7	>0.23	320.0	Vero	>320.0	>1.0	02/12/87
	Ad	0	0	--	HEp-2	320.0	--	02/12/87
	VSV	0	0	--	L929	32.0	--	02/06/87
2448	PT	1.25	0.42	--	Vero	32.0	--	02/23/87
	YFV	0.3	0.1	--	Vero	100.0	--	05/07/87
	JE	>0.5	>0.17	--	Vero	>320.0	--	05/13/87

	SF	0	0	--	Vero	320.0	--	03/03/87
	VV	0	0	--	Vero	320.0	--	02/12/87
	Ad	0	0	--	HEp-2	320.0	--	02/12/87
	VSV	0	0	--	L929	320.0	--	02/06/87
2449	PT	1.0	0.33	--	Vero	100.0	--	02/24/87
	YFV	0	0	--	Vero	32.0	--	05/07/87
	JE	0.098	0.033	--	Vero	100.0	--	05/13/87
	SF	1.75	0.58	24.9	Vero	100.0	4.01	03/09/87
	VV	1.5	0.5	88.4	Vero	320.0	3.6	02/12/87
	Ad	0	0	--	HEp-2	320.0	--	02/12/87
	VSV	0	0	--	L929	100.0	--	02/06/87
2450	PT	0.5	0.17	230.8	Vero	32.0	0.14	02/24/87
	YFV	0	0	--	Vero	10.0	--	05/07/87
	JE	0	0	--	Vero	100.0	--	05/13/87
	SF	1.25	0.42	28.48	Vero	100.0	3.5	03/09/87
	VV	0.65	0.22	62.9	Vero	100.0	1.6	02/12/87
	Ad	0.25	0.08	--	HEp-2	100.0	--	02/12/87
	VSV	0	0	--	L929	100.0	--	02/06/87
2451	PT	2.75	0.92	--	Vero	32.0	--	02/24/87
	YFV	0	0	--	Vero	10.0	--	05/07/87
	JE	0.7	0.23	56.1	Vero	32.0	0.57	05/13/87
	SF	0.1	0.03	--	Vero	32.0	--	03/09/87
	VV	0.3	0.1	--	Vero	320.0	--	02/12/87
	Ad	0.95	0.32	--	HEp-2	320.0	--	02/12/87
	VSV	0	0	--	L929	32.0	--	02/06/87
2452	PT	0.23	0.08	13.9	Vero	10.0	0.5	02/24/87
	YFV	0	0	--	Vero	10.0	--	05/07/87
	JE	0	0	--	Vero	32.0	--	05/14/87
	SF	0.2	0.07	--	Vero	10.0	--	03/09/87
	VV	0.6	0.18	93.9	Vero	100.0	1.1	02/12/87
	Ad	0	0	--	HEp-2	100.0	--	02/12/87
	VSV	0	0	--	L929	32.0	--	02/06/87
2453	PT	0.38	0.13	--	Vero	10.0	--	02/24/87
	YFV	0	0	--	Vero	10.0	--	05/08/87
	JE	0	0	--	Vero	32.0	--	05/14/87
	SF	1.1	0.37	9.39	Vero	32.0	3.4	03/09/87
	VV	0	0	--	Vero	10.0	--	02/12/87
	Ad	0.1	0.03	--	HEp-2	3.2	--	02/12/87
	VSV	0	0	--	L929	10.0	--	02/06/87
2454	PT	2.03	0.68	94.99	Vero	32.0	0.34	02/24/87
	YFV	0	0	--	Vero	100.0	--	05/08/87
	JE	0.1	0.03	--	Vero	320.0	--	05/14/87
	SF	0.2	0.07	--	Vero	320.0	--	03/09/87
	VV	0.2	0.07	--	Vero	100.0	--	02/12/87
	Ad	0.25	0.08	--	HEp-2	320.0	--	02/12/87
	VSV	0	0	--	L929	320.0	--	02/06/87
2455	PT	1.6	0.53	22.86	Vero	10.0	0.44	02/24/87
	YFV	0.2	0.07	--	Vero	0.32	--	05/08/87
	JE	0	0	--	Vero	10.0	--	05/14/87
	SF	0.3	0.1	50.3	Vero	32.0	0.64	03/09/87
	VV	0.1	0.03	--	Vero	10.0	--	02/12/87
	Ad	0	0	--	HEp-2	32.0	--	02/12/87
	VSV	0	0	--	L929	3.2	--	02/06/87

2456	PT	1.4	0.5	53.8	Vero	10.0	0.19	02/24/87
	YFV	0	0	--	Vero	100.0	--	05/08/87
	JE	0.15	0.05	--	Vero	320.0	--	05/14/87
	SF	0	0	--	Vero	320.0	--	03/09/87
	VV	0.25	0.08	--	Vero	320.0	--	02/12/87
	Ad	>0.4	>0.13	--	HEp-2	>320.0	--	02/12/87
	VSV	0	0	--	L929	320.0	--	02/06/87
2457	PT	>0.7	>0.23	327.6	Vero	>320.0	0.98	02/26/87
	YFV	0	0	--	Vero	320.0	--	05/08/87
	JE	0	0	--	Vero	320.0	--	05/14/87
	SF	0.15	0.05	--	Vero	320.0	--	03/11/87
	VV	0	0	--	Vero	>320.0	--	02/12/87
	Ad	0	0	--	HEp-2	320.0	--	02/12/87
	VSV	0	0	--	L929	100.0	--	02/06/87
2458	PT	0	0	--	Vero	10.0	--	02/26/87
	YFV	0	0	--	Vero	10.0	--	05/08/87
	JE	0	0	--	Vero	10.0	--	05/14/87
	SF	0	0	--	Vero	10.0	--	03/11/87
	VV	0	0	--	Vero	10.0	--	02/12/87
	Ad	0	0	--	HEp-2	10.0	--	02/12/87
	VSV	0	0	--	L929	10.0	--	02/06/87
2459	PT	0.1	0.03	--	Vero	100.0	--	02/26/87
	YFV	0.15	0.05	--	Vero	100.0	--	05/08/87
	JE	0	0	--	Vero	320.0	--	05/14/87
	SF	0	0	--	Vero	320.0	--	03/11/87
	VV	0	0	--	Vero	320.0	--	02/12/87
	Ad	0	0	--	HEp-2	320.0	--	02/12/87
	VSV	0	0	--	L929	320.0	--	02/06/87
2460	PT	0.6	0.2	304.5	Vero	100.0	0.33	02/26/87
	YFV	0	0	--	Vero	320.0	--	05/08/87
	JE	0	0	--	Vero	320.0	--	05/14/87
	SF	0	0	--	Vero	100.0	--	03/11/87
	VV	0.5	0.16	--	Vero	320.0	--	02/19/87
	Ad	0	0	--	HEp-2	320.0	--	02/19/87
	VSV	0	0	--	L929	320.0	--	02/06/87
2461	PT	0.45	0.15	123.5	Vero	100.0	0.8	02/26/87
	YFV	0.6	0.2	93.2	Vero	32.0	0.34	05/08/87
	JE	0	0	--	Vero	100.0	--	05/14/87
	SF	0.15	0.05	--	Vero	32.0	--	03/11/87
	VV	0.2	0.07	--	Vero	32.0	--	02/19/87
	Ad	0.3	0.1	32.0	HEp-2	32.0	1.0	02/19/87
	VSV	0	0	--	L929	100.0	--	02/06/87
2462	PT	0.5	0.17	--	Vero	100.0	--	02/26/87
	YFV	0.05	0.02	--	Vero	32.0	--	05/08/87
	JE	0	0	--	Vero	100.0	--	05/14/87
	SF	0	0	--	Vero	32.0	--	03/11/87
	VV	0.3	0.1	--	Vero	100.0	--	02/19/87
	Ad	0.15	0.05	--	HEp-2	100.0	--	02/19/87
	VSV	0	0	--	L929	100.0	--	02/06/87
2463	PT	0.6	0.2	11.7	Vero	(32.0	2.7	02/26/87
	YFV	0	0	--	Vero	(32.0	--	05/08/87
	JE	0	0	--	Vero	(10.0	--	05/15/87

	SF	0	0	--	Vero	(32.0	--	03/11/87
	VV	0.25	0.08	--	Vero	3.2	--	02/19/87
	Ad	0.25	0.08	--	HEp-2	3.2	--	04/10/87
	VSV	2.15	0.72	9.3	L929	10.0	1.1	02/06/87
2464	PT	0.4	0.13	313.7	Vero	100.0	0.32	02/26/87
	YFV	0	0	--	Vero	100.0	--	05/11/87
	JE	0	0	--	Vero	100.0	--	05/15/87
	SF	0	0	--	Vero	100.0	--	03/11/87
	VV	0.65	0.22	259.6	Vero	100.0	0.39	02/19/87
	Ad	0	0	--	HEp-2	32.0	--	02/19/87
	VSV	0	0	--	L929	320.0	--	02/06/87
2465	PT	0.1	0.03	--	Vero	10.0	--	02/27/87
	YFV	0.3	0.1	10.0	Vero	10.0	1.0	05/11/87
	JE	0.35	0.12	--	Vero	3.2	--	05/15/87
	SF	0	0	--	Vero	10.0	--	03/20/87
	VV	0	0	--	Vero	10.0	--	02/19/87
	Ad	0	0	--	HEp-2	3.2	--	02/19/87
	VSV	0	0	--	L929	10.0	--	02/06/87
2466	PT	0	0	--	Vero	(100.0	--	02/27/87
	YFV	0	0	--	Vero	(100.0	--	05/11/87
	JE	0	0	--	Vero	32.0	--	05/15/87
	SF	0.25	0.08	--	Vero	32.0	--	03/20/87
	VV	0.75	0.25	210	Vero	100.0	0.48	02/19/87
	Ad	0	0	--	HEp-2	320.0	--	02/19/87
	VSV	0.6	0.2	297.9	L929	100.0	0.3	02/06/87
2467	PT	0.3	0.1	--	Vero	(320.0	--	02/27/87
	YFV	0	0	--	Vero	32.0	--	05/11/87
	JE	0	0	--	Vero	(320.0	--	05/15/87
	SF	0.2	0.07	--	Vero	(320.0	--	03/20/87
	VV	0.85	0.28	56.6	Vero	100.0	1.8	02/19/87
	Ad	0.3	0.1	--	HEp-2	100.0	--	02/19/87
	VSV	0.3	0.1	100.0	L929	100.0	1.0	02/06/87
2468	PT	0.4	0.13	111.6	Vero	100.0	0.9	02/27/87
	YFV	0.75	0.25	68.1	Vero	100.0	1.47	05/11/87
	JE	0	0	--	Vero	32.0	--	05/15/87
	SF	0.1	0.03	--	Vero	100.0	--	03/20/87
	VV	0.3	0.1	--	Vero	320.0	--	02/19/87
	Ad	0	0	--	HEp-2	100.0	--	02/19/87
	VSV	0.6	0.2	297.9	L929	100.0	0.3	02/06/87
2469	PT	0.2	0.07	--	Vero	(320.0	--	02/27/87
	YFV	0	0	--	Vero	100.0	--	05/11/87
	JE	0	0	--	Vero	320.0	--	05/15/87
	SF	0	0	--	Vero	320.0	--	03/20/87
	VV	0.3	0.1	--	Vero	320.0	--	02/19/87
	Ad	(0.5	(0.17	--	HEp-2	(320.0	--	02/19/87
	VSV	0.3	0.08	--	L929	320.0	--	02/06/87
2470	PT	2.18	0.73	69.8	Vero	32.0	0.5	02/27/87
	YFV	0.25	0.08	--	Vero	10.0	--	05/11/87
	JE	0	0	--	Vero	32.0	--	05/15/87
	SF	0.35	0.12	314.87	Vero	32.0	0.1	03/18/87
	VV	0	0	--	Vero	320.0	--	02/19/87
	Ad	0	0	--	HEp-2	100.0	--	02/19/87
	VSV	0	0	--	L929	32.0	--	02/06/87

2741	PT	>0.7	>0.23	--	Vero	>320.0	--	02/27/87
	YFV	0	0	--	Vero	>100.0	--	05/11/87
	JE	1.2	0.4	144.8	Vero	320.0	2.2	05/15/87
	SF	0	0	--	Vero	>320.0	--	03/18/87
	VV	0	0	--	Vero	>320.0	--	02/19/87
	Ad	0	0	--	HEp-2	>320.0	--	02/19/87
	VSV	0	0	--	L329	>320.0	--	02/06/87
2742	PT	>0.7	>0.23	--	Vero	>320.0	--	02/27/87
	YFV	0	0	--	Vero	>100.0	--	05/11/87
	JE	0.1	0.03	--	Vero	320.0	--	05/15/87
	SF	0	0	--	Vero	>320.0	--	03/18/87
	VV	0	0	--	Vero	>320.0	--	02/19/87
	Ad	0	0	--	HEp-2	>320.0	--	02/19/87
	VSV	0	0	--	L329	>320.0	--	02/06/87
2743	PT	2.4	0.8	32.0	Vero	320.0	10.0	04/28/87
	PT	1.1	0.37	118.1	Vero	320.0	2.71	08/21/87
	PT	0.38	0.13	253.5	Vero	320.0	1.26	11/11/87
	YFV	0.55	0.18	93.9	Vero	100.0	1.06	05/11/87
	JE	0.85	0.28	94.2	Vero	100.0	1.06	05/15/87
	SF	1.95	0.65	47.2	Vero	320.0	6.8	03/18/87
	VV	1.5	0.5	88.4	Vero	320.0	3.6	02/19/87
	Ad	0.75	0.25	178.5	HEp-2	320.0	1.8	02/19/87
	VSV	0.2	0.07	--	L329	100.0	--	02/06/87
	Ara-A	VV	2.8	0.93	6.2	Vero	100.0	16.2	02/12/87
VV		3.1	1.0	2.48	Vero	26.8	10.8	02/19/87
VV		3.2	1.1	2.6	Vero	32.0	12.3	03/12/87
C-3-Deaza- AdO	VSV	2.1	0.7	5.6	L329	10.0	1.8	02/06/87
Ribavirin	PT	1.7	0.57	20.1	Vero	100.0	4.97	04/28/87
	PT	1.2	0.4	31.7	Vero	100.0	3.2	08/21/87
	PT	0.9	0.3	21.7	Vero	32.0	1.5	11/11/87
	Ad	1.45	0.48	48.3	HEp-2	100.0	2.1	02/12/87
	Ad	1.6	0.53	40.7	HEp-2	100.0	2.5	02/19/87
	Ad	1.65	0.55	37.7	HEp-2	100.0	2.7	03/12/87
	Ad	1.55	0.52	35.9	HEp-2	100.0	2.8	04/10/87
Selenazole	PT	2.03	0.68	4.2	Vero	10.0	2.4	02/23/87
	PT	1.73	0.58	6.3	Vero	10.0	1.6	02/24/87
	PT	2.3	0.77	7.7	Vero	3.2	0.4	02/26/87
	PT	1.3	0.43	12.7	Vero	10.0	0.8	02/27/87
	PT	1.2	0.4	12.8	Vero	1.0	0.08	11/11/87
	YFV	1.75	0.58	7.34	Vero	1.0	0.14	05/07/87
	YFV	2.7	0.9	2.1	Vero	3.2	1.5	05/08/87
	YFV	3.35	1.12	0.93	Vero	3.2	3.4	05/11/87
	JE	3.24	1.08	0.66	Vero	3.2	4.9	05/13/87
	JE	2.95	0.98	1.16	Vero	3.2	2.76	05/14/87
	JE	1.9	0.63	2.5	Vero	3.2	1.28	05/15/87
	SF	2.3	0.77	9.8	Vero	10.0	1.0	03/03/87
	SF	0.9	0.3	21.9	Vero	3.2	0.15	03/09/87
	SF	1.65	0.55	9.6	Vero	10.0	1.04	03/11/87
SF	1.45	0.48	14.4	Vero	3.2	0.2	03/18/87	

SF	1.9	0.63	5.6	Vero	10.0	1.8	03/20/87
VV	2.6	0.85	5.6	Vero	10.0	1.8	02/12/87
VV	2.1	0.7	10.2	Vero	10.0	0.98	02/19/87
VV	2.55	0.85	10.5	Vero	10.0	0.95	03/12/87
Ad	1.4	0.47	14.5	HEp-2	32.0	2.2	02/12/87
Ad	1.35	0.45	33.3	HEp-2	32.0	0.96	02/19/87
Ad	1.1	0.37	32.2	HEp-2	32.0	1.0	03/12/87
Ad	1.2	0.38	30.8	HEp-2	32.0	1.0	04/10/87

VR* = Virus Rating calculated according to the method of Sidwell and Huffman (Appl. Microbiol. 22: 797-801, 1971).

UPDATED:11/30/87:ADB

SHIPMENT NO. 19 (Filename AVS1.19)

AVS NO.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
2471	PT	0.7	0.23	297.9	Vero	10.0	0.03	04/20/87
	YFV	0	0	--	Vero	320.0	--	04/20/87
	JE	0.2	0.07	--	Vero	320.0	--	05/22/87
	SF	0.55	0.18	300.3	Vero	320.0	1.07	04/20/87
	VV	0	0	--	Vero	100.0	--	03/12/87
	Ad	0	0	--	HEp-2	320.0	--	03/12/87
	VSV	0	0	--	L929	100.0	--	03/17/87
2472	PT	0.89	0.30	--	Vero	100.0	--	04/20/87
	YFV	0	0	--	Vero	320.0	--	04/20/87
	JE	0	0	--	Vero	320.0	--	05/22/87
	SF	0	0	--	Vero	320.0	--	04/20/87
	VV	0.45	0.15	--	Vero	320.0	--	03/12/87
	Ad	0.2	0.07	--	HEp-2	320.0	--	03/12/87
	VSV	0	0	--	L929	100.0	--	03/17/87
2473	PT	0.64	0.21	--	Vero	100.0	--	04/20/87
	YFV	0.1	0.03	--	Vero	320.0	--	04/20/87
	JE	0	0	--	Vero	320.0	--	05/22/87
	SF	0	0	--	Vero	320.0	--	04/20/87
	VV	0	0	--	Vero	320.0	--	03/12/87
	Ad	0	0	--	HEp-2	320.0	--	03/12/87
	VSV	0	0	--	L929	320.0	--	03/17/87
2474	PT	0.32	0.11	--	Vero	10.0	--	04/20/87
	YFV	0	0	--	Vero	100.0	--	04/20/87
	JE	0	0	--	Vero	32.0	--	05/22/87
	SF	0.1	0.03	--	Vero	100.0	--	04/20/87
	VV	0	0	--	Vero	3.2	--	03/12/87
	Ad	0	0	--	HEp-2	10.0	--	03/12/87
	VSV	0	0	--	L929	32.0	--	03/17/87
2475	PT	1.03	0.34	3.99	Vero	10.0	2.5	04/24/87
	YFV	0.33	0.11	--	Vero	10.0	--	04/21/87
	JE	0	0	--	Vero	10.0	--	05/26/87
	SF	0.8	0.27	3.15	Vero	3.2	1.02	04/21/87
	VV	0.2	0.07	--	Vero	32.0	--	03/12/87
	Ad	0	0	--	HEp-2	32.0	--	03/12/87
	VSV	0	0	--	L929	32.0	--	03/17/87
2476	PT	0.05	0.02	--	Vero	100.0	--	04/24/87
	YFV	0	0	--	Vero	32.0	--	04/21/87
	JE	0	0	--	Vero	100.0	--	05/26/87
	SF	0.6	0.2	297.9	Vero	32.0	0.11	04/21/87
	VV	0.45	0.15	320.0	Vero	100.0	0.31	03/12/87
	Ad	0	0	--	HEp-2	100.0	--	03/12/87
	VSV	0	0	--	L929	100.0	--	03/17/87
2477	PT	0.1	0.03	--	Vero	100.0	--	04/27/87
	YFV	0.3	0.1	--	Vero	320.0	--	04/21/87
	JE	0	0	--	Vero	320.0	--	05/26/87
	SF	0	0	--	Vero	320.0	--	04/21/87
	VV	0	0	--	Vero	100.0	--	03/12/87
	Ad	0	0	--	HEp-2	320.0	--	03/12/87

	VSV	0	0	--	L929	32.0	--	03/17/87
2478	PT	0.225	0.075	--	Vera	10.0	--	04/27/87
	VEE	0.12	0.04	--	Vera	320.0	--	05/05/87
	YFV	0	0	--	Vera	<10.0	--	04/21/87
	JE	0	0	--	Vera	32.0	--	05/26/87
	SF	0	0	--	Vera	<10.0	--	04/21/87
	VV	0.4	0.13	100.0	Vera	32.0	0.32	03/12/87
	Ad	0.2	0.07	--	HEP-2	100.0	--	03/12/87
	VSV	0	0	--	L929	100.0	--	03/17/87
2479	PT	0.15	0.05	--	Vera	3.2	--	04/27/87
	YFV	1.05	0.35	29.8	Vera	3.2	0.11	04/21/87
	JE	1.15	0.38	30.0	Vera	32.0	1.07	05/26/87
	SF	1.05	0.35	29.8	Vera	32.0	1.07	04/21/87
	VV	0	0	--	Vera	10.0	--	03/12/87
	Ad	0.15	0.05	--	HEP-2	32.0	--	03/12/87
	VSV	0	0	--	L929	32.0	--	03/17/87
2480	PT	0.65	0.22	8.3	Vera	10.0	1.2	04/27/87
	YFV	0.9	0.3	3.2	Vera	3.2	1.0	04/28/87
	JE	0	0	--	Vera	<32.0	--	05/26/87
	SF							
	VV	0.5	0.17	--	Vera	10.0	--	03/12/87
	Ad	0.2	0.07	--	HEP-2	32.0	--	03/12/87
	VSV	0.05	0.02	--	L929	10.0	--	03/17/87
2481	PT	0.5	0.17	--	Vera	<100.0	--	04/27/87
	YFV	0	0	--	Vera	100.0	--	04/22/87
	JE	0	0	--	Vera	320.0	--	05/26/87
	SF	0.15	0.05	--	Vera	100.0	--	04/22/87
	VV	1.05	0.35	320.0	Vera	100.0	0.31	03/12/87
	Ad	>0.1	>0.03	--	HEP-2	>320.0	--	03/12/87
	VSV	0	0	--	L929	100.0	--	03/17/87
2482	PT	0.05	0.017	--	Vera	100.0	--	04/28/87
	YFV	0	0	--	Vera	100.0	--	04/22/87
	JE	0	0	--	Vera	<320.0	--	05/26/87
	SF	0.45	0.15	95.8	Vera	32.0	0.3	04/22/87
	VV	0.2	0.07	--	Vera	32.0	--	03/12/87
	Ad	0	0	--	HEP-2	100.0	--	03/12/87
	VSV	0	0	--	L929	100.0	--	03/17/87
2483	PT	>0.1	>0.03	--	Vera	>100.0	--	04/28/87
	YFV	0	0	--	Vera	10.0	--	04/22/87
	JE	0	0	--	Vera	320.0	--	05/26/87
	SF	0	0	--	Vera	320.0	--	04/22/87
	VV	0	0	--	Vera	100.0	--	03/12/87
	Ad	0	0	--	HEP-2	>100.0	--	03/12/87
	VSV	0	0	--	L929	32.0	--	03/17/87
2484	PT	0.05	0.017	--	Vera	320.0	--	04/28/87
	YFV	0.1	0.03	--	Vera	100.0	--	04/22/87
	SF	0	0	--	Vera	320.0	--	04/22/87
	VV	>0.3	>0.1	--	Vera	>320.0	--	03/12/87
	Ad	0	0	--	HEP-2	>320.0	--	03/12/87
	VSV	0	0	--	L929	32.0	--	03/17/87
2485	PT	0.83	0.28	--	Vera	320.0	--	04/21/87
	YFV	0	0	--	Vera	32.0	--	04/22/87

	SF	0	0	--	Vero	320.0	--	04/22/87
	JE	0	0	--	Vero	100.0	--	04/06/87
	VV	0	0	--	Vero	320.0	--	05/07/87
	Ad	0.3	0.1	320.0	HEp-2	320.0	1.0	05/07/87
	VSV	0	0	--	L929	320.0	--	05/01/87
2486	PT	0.35	0.12	31.5	Vero	10.0	0.32	04/21/87
	YFV	0.55	0.18	--	Vero	10.0	--	04/23/87
	SF	0.05	0.017	--	Vero	3.2	--	04/23/87
	JE	0.2	0.07	--	Vero	3.2	--	04/06/87
	VV	0.5	0.17	72.09	Vero	32.0	0.44	05/07/87
	Ad	0	0	--	HEp-2	100.0	--	05/07/87
	VSV	0	0	--	L929	32.0	--	05/01/87
2487	PT	0	0	--	Vero	100.0	--	04/21/87
	VEE	0.97	0.32	123.9	Vero	320.0	2.6	05/05/87
	YFV	0	0	--	Vero	100.0	--	04/23/87
	SF	0.75	0.25	210.0	Vero	100.0	0.48	04/23/87
	JE	0.3	0.1	--	Vero	320.0	--	04/06/87
	VV	0.1	0.03	--	Vero	320.0	--	05/07/87
	Ad	0.35	0.12	--	HEp-2	320.0	--	05/07/87
	VSV	0	0	--	L929	320.0	--	05/01/87
2488	PT	0.1	0.03	--	Vero	320.0	--	04/21/87
	YFV	0.05	0.017	--	Vero	3.2	--	04/23/87
	SF	0	0	--	Vero	1.0	--	04/23/87
	JE	0	0	--	Vero	320.0	--	04/06/87
	VV	0	0	--	Vero	>320.0	--	05/07/87
	Ad	0	0	--	HEp-2	320.0	--	05/07/87
	VSV	0	0	--	L929	>320.0	--	05/01/87
2489	PT	0	0	--	Vero	10.32	--	04/21/87
	YFV	0	0	--	Vero	10.32	--	04/23/87
	SF	0	0	--	Vero	10.32	--	04/23/87
	VV	1.45	0.48	3.98	Vero	1.00	0.25	05/07/87
	Ad	0	0	--	HEp-2	1.00	--	05/07/87
	VSV	0	0	--	L929	10.32	--	05/01/87
2490	PT	0.1	0.03	--	Vero	320.0	--	04/22/87
	YFV	0	0	--	Vero	320.0	--	04/23/87
	SF	0	0	--	Vero	10.0	--	04/23/87
	JE	0.2	0.07	--	Vero	100.0	--	04/06/87
	VV	>0.7	>0.23	--	Vero	>320.0	--	05/07/87
	Ad	0.15	0.05	--	HEp-2	320.0	--	05/07/87
	VSV	0	0	--	L929	100.0	--	05/01/87
2491	PT	0.4	0.13	--	Vero	100.0	--	04/22/87
	YFV	0	0	--	Vero	100.0	--	04/24/87
	SF	0	0	--	Vero	10.0	--	04/24/87
	JE	0.1	0.03	--	Vero	32.0	--	04/07/87
	VV	0.6	0.2	--	Vero	100.0	--	05/07/87
	Ad	0	0	--	HEp-2	100.0	--	05/07/87
	VSV	0	0	--	L929	100.0	--	05/01/87
2492	PT	1.15	0.38	248.9	Vero	100.0	0.4	04/22/87
	YFV	0	0	--	Vero	100.0	--	04/24/87
	SF	0.05	0.017	--	Vero	100.0	--	04/24/87
	JE	0	0	--	Vero	100.0	--	04/07/87
	VV	0.5	0.17	219.77	Vero	100.0	0.46	05/07/87
	Ad	0.3	0.1	320.0	HEp-2	320.0	1.0	05/07/87

	VSV	0	0	--	L929	100.0	--	05/01/87
2493	PT	0.475	0.16	--	Vero	320.0	--	04/22/87
	YFV	0.05	0.017	--	Vero	100.0	--	04/24/87
	SF	0	0	--	Vero	100.0	--	04/24/87
	JE	0	0	--	Vero	320.0	--	04/07/87
	VV	>0.2	>0.07	--	Vero	>320.0	--	05/07/87
	Ad	0	0	--	HEp-2	>320.0	--	05/07/87
	VSV	0	0	--	L929	>320.0	--	05/01/87
2494	PT	0.275	0.092	--	Vero	320.0	--	04/22/87
	YFV	0	0	--	Vero	100.0	--	04/24/87
	SF	0.2	0.07	--	Vero	32.0	--	04/24/87
	JE	0.1	0.03	--	Vero	100.0	--	04/07/87
	VV	0.2	0.07	--	Vero	320.0	--	05/07/87
	Ad	0	0	--	HEp-2	100.0	--	05/07/87
	VSV	0.15	0.05	--	L929	100.0	--	05/01/87
2495	PT	0.08	0.03	--	Vero	10.0	--	04/23/87
	YFV	0	0	--	Vero	3.2	--	04/24/87
	SF	0	0	--	Vero	10.0	--	04/24/87
	JE	0.45	0.15	--	Vero	32.0	--	04/07/87
	VV	0	0	--	Vero	320.0	--	05/07/87
	Ad	0	0	--	HEp-2	10.0	--	05/07/87
	VSV	0	0	--	L929	32.0	--	05/01/87
2496	PT	0.46	0.15	96.7	Vero	100.0	1.03	04/23/87
	YFV	0	0	--	Vero	100.0	--	04/27/87
	JE	0.1	0.03	--	Vero	32.0	--	04/07/87
	VV	0	0	--	Vero	320.0	--	05/07/87
	Ad	0	0	--	HEp-2	>320.0	--	05/07/87
	VSV	0	0	--	L929	32.0	--	05/01/87
2497	PT	0.3	0.1	--	Vero	100.0	--	04/23/87
	YFV	0	0	--	Vero	100.0	--	04/27/87
	JE	0	0	--	Vero	100.0	--	04/08/87
	VV	0	0	--	Vero	>320.0	--	05/07/87
	Ad	>0.3	>0.1	--	HEp-2	>320.0	--	05/07/87
	VSV	0.2	0.07	--	L929	320.0	--	05/01/87
2498	PT	0.48	0.16	--	Vero	100.0	--	04/23/87
	YFV	0	0	--	Vero	32.0	--	04/27/87
	JE	0	0	--	Vero	32.0	--	04/08/87
	VV	0	0	--	Vero	<320.0	--	05/07/87
	Ad	0	0	--	HEp-2	100.0	--	05/07/87
	VSV	0	0	--	L929	100.0	--	05/01/87
2499	PT	0.36	0.12	--	Vero	100.0	--	04/23/87
	YFV	0.2	0.07	--	Vero	320.0	--	04/27/87
	JE	0	0	--	Vero	100.0	--	04/08/87
	VV	0	0	--	Vero	>320.0	--	05/07/87
	Ad	0.1	0.03	--	HEp-2	320.0	--	05/07/87
	VSV	0	0	--	L929	320.0	--	05/01/87
2500	PT	0.05	0.017	--	Vero	320.0	--	04/24/87
	YFV	0	0	--	Vero	100.0	--	04/27/87
	JE	0.1	0.03	--	Vero	320.0	--	04/08/87
	VV	0.2	0.07	--	Vero	320.0	--	05/14/87
	Ad	>0.3	>0.1	--	HEp2	>320.0	--	05/14/87
	VSV	0.1	0.03	--	L929	320.0	--	05/01/87

2501	PT	0	0	--	Vero	320.0	--	04/24/87
	YFV	0	0	--	Vero	320.0	--	04/28/87
	JE	0.55	0.18	--	Vero	320.0	--	04/08/87
	VV	0	0	--	Vero	>320.0	--	05/14/87
	Ad	0	0	--	HEp2	100.0	--	05/14/87
	VSV	0	0	--	L929	32.0	--	05/01/87
2502	PT	0.35	0.12	--	Vero	100.0	--	04/24/87
	YFV	0.2	0.07	--	Vero	320.0	--	04/28/87
	JE	0	0	--	Vero	320.0	--	04/08/87
	VV	0	0	--	Vero	>320.0	--	05/14/87
	Ad	>0.4	>0.13	--	HEp2	>320.0	--	05/14/87
	VSV	0	0	--	L929	320.0	--	05/01/87
2570	PT	0.7	0.23	--	Vero	<100.0	--	05/18/87
	YFV	0	0	--	Vero	10.0	--	05/18/87
	VEE	0	0	--	Vero	100.0	--	05/18/87
	JE	0	0	--	Vero	100.0	--	05/18/87
	SF	1.05	0.35	8.02	Vero	32.0	3.99	05/18/87
	VV	0.15	0.05	--	Vero	32.0	--	06/04/87
	Ad	0	0	--	HEp-2	100.0	--	06/04/87
	VSV	0	0	--	L929	10.0	--	06/05/87
2571	PT	1.82	0.61	24.85	Vero	32.0	1.29	04/06/87
	VEE	1.0	0.3	188.5	Vero	100.0	0.53	05/12/87
	YFV	1.70	0.57	30.34	Vero	3.2	0.11	04/06/87
	JE	0.50	0.17	303.41	Vero	320.0	1.05	04/06/87
	SF	0.30	0.10	320.0	Vero	3.2	0.01	04/06/87
	VV	0.8	0.27	178.89	Vero	320.0	1.79	06/04/87
	Ad	0	0	--	HEp-2	32.0	--	06/04/87
	VSV	0.15	0.05	--	L929	10.0	--	06/05/87
2572	PT	1.40	0.47	54.19	Vero	<320.0	5.91	04/06/87
	VEE	1.15	0.38	128.5	Vero	100.0	0.78	05/05/87
	YFV	1.05	0.35	30.65	Vero	32.0	1.04	04/06/87
	JE	0	0	--	Vero	32.0	--	04/06/87
	SF	0	0	--	Vero	32.0	--	04/06/87
	VV	0.3	0.1	--	Vero	<320.0	--	06/04/87
	Ad	0	0	--	HEp-2	100.0	--	06/04/87
	VSV	0	0	--	L929	32.0	--	06/05/87
2573	PT	>2.4	>0.8	33.51	Vero	>320.0	9.55	04/06/87
	VEE	1.35	0.45	313.5	Vero	100.0	0.32	05/05/87
	YFV	1.15	0.38	93.92	Vero	100.0	1.06	04/06/87
	JE	0.75	0.25	119.97	Vero	100.0	0.83	04/06/87
	SF	0.45	0.15	306.53	Vero	32.0	0.10	04/06/87
	VV	0.5	0.17	197.09	Vero	100.0	0.5	06/04/87
	Ad	0	0	--	HEp-2	100.0	--	06/04/87
	VSV	0	0	--	L929	10.0	--	06/05/87
2574	PT	0.07	0.0247	--	Vero	32.0	--	04/06/87
	VEE	0	0	--	Vero	10.32	--	05/05/87
	YFV	0.65	0.22	66.4	Vero	32.0	0.48	04/06/87
	YFV	0.79	0.26	--	Vero	100.0	--	07/07/87
	JE	0	0	--	Vero	100.0	--	04/06/87
	SF	0	0	--	Vero	32.0	--	04/06/87
	VV	0	0	--	Vero	<100.0	--	06/04/87
	Ad	0	0	--	HEp-2	100.0	--	06/04/87
VSV	0	0	--	L929	10.0	--	06/05/87	

2575	PT	0.75	0.25	98.41	Vero	32.0	0.33	04/06/87
	VEE	>1.6	>0.53	113.07	Vero	>320.0	2.8	05/05/87
	YFV	1.6	0.53	31.01	Vero	32.0	1.03	04/06/87
	JE	0.65	0.22	178.9	Vero	320.0	1.79	04/06/87
	SF	0.6	0.2	297.9	Vero	1.0	0.003	04/06/87
	VV	0	0	--	Vero	100.0	--	06/04/87
	Ad	0	0	--	HEp-2	10.0	--	06/04/87
	VSV	0	0	--	L929	32.0	--	06/05/87
2576	PT	1.4	0.47	150.7	Vero	10.0	0.07	04/07/87
	VEE	1.5	0.5	78.16	Vero	320.0	4.09	05/05/87
	YFV	2.3	0.97	2.54	Vero	10.0	3.94	04/07/87
	JE	0.33	0.11	309.6	Vero	32.0	0.1	04/07/87
	SF	0.6	0.2	297.9	Vero	10.0	0.03	04/07/87
	VV	0	0	--	Vero	100.0	--	06/04/87
	Ad	0	0	--	HEp-2	32.0	--	06/04/87
	VSV	0	0	--	L929	32.0	--	06/05/87
2577	PT	1.25	0.42	7.9	Vero	10.0	1.27	04/07/87
	VEE	0.75	0.25	100.0	Vero	10.0	0.1	05/05/87
	YFV	0.6	0.2	--	Vero	10.0	--	04/07/87
	JE	0.05	0.02	--	Vero	<32.0	--	04/07/87
	SF	0	0	--	Vero	3.2	--	04/07/87
	VV	0	0	--	Vero	32.0	--	06/04/87
	Ad	0	0	--	HEp-2	<320.0	--	06/04/87
	VSV	0	0	--	L929	10.0	--	06/05/87
2578	PT	>0.95	>0.32	--	Vero	>320.0	--	04/07/87
	VEE	0.3	0.1	--	Vero	100.0	--	05/05/87
	JE	>0.1	>0.03	--	Vero	>320.0	--	04/07/87
	SF	0	0	--	Vero	320.0	--	04/07/87
	VV	0	0	--	Vero	>320.0	--	06/04/87
	Ad	>0.3	>0.1	--	HEp-2	>320.0	--	06/04/87
	VSV	0	0	--	L929	>320.0	--	06/05/87
	2579	PT	>0.7	>0.23	--	Vero	>320.0	--	05/18/87
VEE		0	0	--	Vero	100.0	--	05/18/87
YFV		0	0	--	Vero	>320.0	--	05/18/87
JE		0	0	--	Vero	>320.0	--	05/18/87
SF		>2.05	>0.68	26.67	Vero	>320.0	12.0	05/18/87
VV		0	0	--	Vero	>320.0	--	06/04/87
Ad		>0.6	>0.2	320.0	HEp-2	>320.0	1.0	06/04/87
VSV		0	0	--	L929	320.0	--	06/05/87
2580	PT	1.6	0.53	2.2	Vero	10.0	4.53	04/07/87
	VEE	1.95	0.65	1.76	Vero	3.2	1.8	05/05/87
	JE	0	0	--	Vero	10.0	--	04/07/87
	SF	0.35	0.12	9.8	Vero	3.2	0.33	04/07/87
	VV	1.3	0.43	56.14	Vero	32.0	0.57	06/04/87
	Ad	0.35	0.12	--	HEp-2	100.0	--	06/04/87
	VSV	0	0	--	L929	100.0	--	06/05/87
	2581	PT	1.08	0.36	29.7	Vero	32.0	1.08	04/07/87
VEE		0.45	0.15	--	Vero	100.0	--	05/05/87
JE		0.65	0.22	297.9	Vero	320.0	1.07	04/07/87
SF		0.6	0.2	297.9	Vero	10.0	0.03	04/07/87
VV		0	0	--	Vero	10.0	--	06/04/87
Ad		0	0	--	HEp-2	<100.0	--	06/04/87
VSV		0	0	--	L929	32.0	--	06/05/87

2582	PT	1.32	0.44	29.69	Vera	100.0	3.37	04/08/87
	YFV	1.8	0.6	44.29	Vera	10.0	0.23	04/08/87
	JE	0.4	0.13	307.4	Vera	320.0	1.04	04/08/87
	SF	0.45	0.15	306.5	Vera	3.2	0.01	04/08/87
	VV	0.1	0.03	--	Vera	32.0	--	06/04/87
	Ad	0	0	--	HEp-2	32.0	--	06/04/87
	VSV	0	0	--	L929	100.0	--	06/05/87
2583	PT	0.85	0.28	31.55	Vera	32.0	1.01	04/08/87
	YFV	1.7	0.57	30.34	Vera	32.0	1.05	04/08/87
	JE	0.6	0.2	260.5	Vera	320.0	1.23	04/08/87
	SF	0.6	0.2	297.9	Vera	32.0	0.11	04/08/87
	VV	0	0	--	Vera	320.0	--	06/04/87
	Ad	0	0	--	HEp-2	100.0	--	06/04/87
	VSV	0	0	--	L929	32.0	--	06/05/87
2584	PT	0	0	--	Vera	32.0	--	04/08/87
	YFV	0.1	0.03	--	Vera	32.0	--	04/08/87
	JE	0	0	--	Vera	32.0	--	04/08/87
	SF	0	0	--	Vera	32.0	--	04/08/87
	VV	0	0	--	Vera	100.0	--	06/04/87
	Ad	0.15	0.05	--	HEp-2	100.0	--	06/04/87
	VSV	0.2	0.07	--	L929	10.0	--	06/05/87
2585	PT	1.27	0.42	94.23	Vera	320.0	3.4	04/08/87
	YFV	1.75	0.58	30.03	Vera	32.0	1.07	04/08/87
	JE	>1.59	>0.53	98.97	Vera	>320.0	>3.2	04/08/87
	SF	0.6	0.2	297.9	Vera	3.2	0.01	04/08/87
	VV	0.25	0.08	--	Vera	100.0	--	06/04/87
	Ad	0	0	--	HEp-2	100.0	--	06/04/87
	VSV	0.05	0.017	--	L929	100.0	--	06/05/87
2586	PT	>0.048	>0.016	--	Vera	>320.0	--	04/08/87
	YFV	1.6	0.53	71.84	Vera	320.0	4.45	04/08/87
	JE	0	0	--	Vera	>320.0	--	04/08/87
	SF	0	0	--	Vera	>320.0	--	04/08/87
	VV	0	0	--	Vera	320.0	--	06/04/87
	Ad	>0.2	>0.07	--	HEp-2	>320.0	--	06/04/87
	VSV	0	0	--	L929	320.0	--	06/05/87
2587	PT	1.3	0.43	28.56	Vera	32.0	1.12	04/09/87
	YFV	1.95	0.65	7.3	Vera	3.2	0.44	04/09/87
	JE	0	0	--	Vera	10.0	--	04/09/87
	SF	1.5	0.5	9.69	Vera	10.0	1.03	04/09/87
	VV	1.7	0.57	55.1	Vera	100.0	1.8	06/04/87
	Ad	0.3	0.1	--	HEp-2	320.0	--	06/04/87
	VSV	0	0	--	L929	100.0	--	06/05/87
2588	PT	>2.9	>0.97	42.84	Vera	>320.0	7.47	04/09/87
	YFV	1.6	0.53	31.01	Vera	32.0	1.03	04/09/87
	JE	0.52	0.17	203.6	Vera	320.0	1.57	04/09/87
	SF	0.9	0.3	297.9	Vera	10.0	0.03	04/09/87
	VV	0.7	0.23	--	Vera	<320.0	--	06/04/87
	Ad	0	0	--	HEp-2	32.0	--	06/04/87
	VSV	0	0	--	L929	32.0	--	06/05/87
2589	PT	1.18	0.39	80.35	Vera	100.0	1.24	04/09/87
	YFV	1.4	0.47	37.2	Vera	10.0	0.27	04/09/87
	JE	0.25	0.08	--	Vera	320.0	--	04/09/87

	SF	0	0	--	Vera	32.0	--	04/09/87
	VV	0	0	--	Vera	320.0	--	06/11/87
	Ad	0.6	0.2	306.72	HEp-2	320.0	1.04	06/11/87
	VSV	0.15	0.05	--	L929	32.0	--	06/12/87
2590	PT	2.3	0.77	21.6	Vera	<320.0	14.8	04/09/87
	PT	0.9	0.3	132.1	Vera	100.0	0.76	08/21/87
	YFV	1.55	0.52	31.5	Vera	32.0	1.02	04/09/87
	JE	1.2	0.4	100.0	Vera	320.0	3.2	04/09/87
	SF	0.05	0.02	--	Vera	32.0	--	04/09/87
	VV	>0.5	>0.17	--	Vera	>320.0	--	06/11/87
	Ad	0.3	0.1	--	HEp-2	<320.0	--	06/11/87
	VSV	0.25	0.08	--	L929	100.0	--	06/12/87

(Filename AVS1.19)

Shipment No. 19 continued:

(Filename AVS2.19)

AVS No.

2591	PT	1.58	0.53	30.42	Vera	10.0	0.33	04/09/87
	YFV	1.9	0.63	29.8	Vera	32.0	1.07	04/09/87
	JE	>2.0	>0.67	96.9	Vera	>320.0	>3.3	04/09/87
	SF	1.2	0.4	93.2	Vera	10.0	0.11	04/09/87
	VV	0.05	0.017	--	Vera	320.0	--	06/11/87
	Ad	0	0	--	HEP-2	100.0	--	06/11/87
	VSV	0	0	--	L929	32.0	--	06/12/87
2592	PT	1.4	0.47	202.3	Vera	100.0	0.49	04/10/87
	YFV	2.25	0.75	29.2	Vera	32.0	1.1	04/10/87
	JE	0	0	--	Vera	>320.0	--	04/10/87
	SF	0.15	0.05	--	Vera	32.0	--	04/10/87
	VV	0.2	0.07	--	Vera	320.0	--	06/11/87
	Ad	0.4	0.13	319.79	HEP-2	320.0	1.0	06/11/87
	VSV	0	0	--	L929	100.0	--	06/12/87
2593	PT	>0.5	>0.17	--	Vera	>320.0	--	04/10/87
	YFV	0	0	--	Vera	>320.0	--	04/10/87
	JE	0	0	--	Vera	>320.0	--	04/10/87
	SF	0	0	--	Vera	320.0	--	04/10/87
	VV	0	0	--	Vera	>320.0	--	06/11/87
	Ad	0	0	--	HEP-2	>320.0	--	06/11/87
	VSV	0	0	--	L929	320.0	--	06/12/87
2594	PT	>0.44	>0.147	--	Vera	>320.0	--	04/10/87
	YFV	>0.2	>0.07	--	Vera	>320.0	--	04/10/87
	JE	0	0	--	Vera	>320.0	--	04/10/87
	SF	0	0	--	Vera	>320.0	--	04/10/87
	VV	0	0	--	Vera	>320.0	--	06/11/87
	Ad	0	0	--	HEP-2	>320.0	--	06/11/87
	VSV	0	0	--	L929	>320.0	--	06/12/87
2595	PT	0.5	0.17	--	Vera	100.0	--	05/18/87
	YFV	0	0	--	Vera	32.0	--	05/18/87
	VEE	0	0	--	Vera	320.0	--	05/18/87
	JE	0	0	--	Vera	100.0	--	05/18/87
	SF	0	0	--	Vera	32.0	--	05/18/87
	VV	0	0	--	Vera	<100.0	--	06/11/87
	Ad	0	0	--	HEP-2	1.0	--	06/11/87
	VSV	0	0	--	L929	1.0	--	06/12/87
2596	PT	0.35	0.12	--	Vera	100.0	--	05/18/87
	YFV	0	0	--	Vera	32.0	--	05/18/87
	VEE	0	0	--	Vera	320.0	--	05/18/87
	JE	0	0	--	Vera	100.0	--	05/18/87
	SF	0	0	--	Vera	32.0	--	05/18/87
	VV	0	0	--	Vera	100.0	--	06/11/87
	Ad	0	0	--	HEP-2	<32.0	--	06/11/87
	VSV	0	0	--	L929	10.0	--	06/12/87
2597	PT	0.9	0.3	--	Vera	320.0	--	05/18/87
	YFV	0	0	--	Vera	32.0	--	05/18/87
	VEE	1.25	0.42	73.4	Vera	320.0	4.36	05/18/87
	JE	0	0	--	Vera	>320.0	--	05/18/87

	SF	1.25	0.42	103.47	Vero	100.0	0.97	05/18/87
	VV	0	0	--	Vero	320.0	--	06/11/87
	Ad	0.15	0.05	--	HEp-2	100.0	--	06/11/87
	VSV	0	0	--	L929	100.0	--	06/12/87
2598	PT	0	0	--	Vero	320.0	--	05/19/87
	YFV	0.1	0.03	--	Vero	32.0	--	05/19/87
	VEE	0	0	--	Vero	320.0	--	05/19/87
	JE	0	0	--	Vero	320.0	--	05/19/87
	SF	0.95	0.32	133.3	Vero	32.0	0.24	08/11/87
	VV	0	0	--	Vero	(320.0	--	06/11/87
	Ad	0.5	0.17	--	HEp-2	(320.0	--	06/11/87
	VSV	0	0	--	L929	100.0	--	06/12/87
2599	PT	0	0	--	Vero	10.0	--	05/19/87
	YFV	0	0	--	Vero	10.0	--	05/19/87
	VEE	0	0	--	Vero	32.0	--	05/19/87
	JE	0	0	--	Vero	10.0	--	05/19/87
	SF	0	0	--	Vero	10.0	--	08/11/87
	VV	0	0	--	Vero	32.0	--	06/11/87
	Ad	0	0	--	HEp-2	(10.0	--	06/11/87
	VSV	0	0	--	L929	3.2	--	06/12/87
2600	PT	1.09	0.36	98.41	Vero	10.0	0.10	04/10/87
	YFV	1.9	0.63	30.3	Vero	10.0	0.3	04/10/87
	JE	0.35	0.12	314.9	Vero	100.0	0.32	04/10/87
	SF	0.6	0.2	297.9	Vero	32.0	0.11	04/10/87
	VV	0.3	0.1	320.0	Vero	320.0	1.0	06/11/87
	Ad	0	0	--	HEp-2	(100.0	--	06/11/87
	VSV	0	0	--	L929	100.0	--	06/12/87
2601	PT	0.22	0.075	--	Vero	320.0	--	05/19/87
	YFV	0	0	--	Vero	320.0	--	05/19/87
	VEE	0.15	0.05	--	Vero	100.0	--	05/19/87
	JE	0	0	--	Vero	320.0	--	05/19/87
	SF	1.1	0.37	118.1	Vero	320.0	2.71	08/11/87
	VV	>0.5	>0.17	--	Vero	>320.0	--	06/11/87
	Ad	0.75	0.25	178.5	HEp-2	320.0	1.79	06/11/87
	VSV	0	0	--	L929	>320.0	--	06/12/87
2602	PT	0.25	0.08	--	Vero	32.0	--	05/19/87
	YFV	0.75	0.25	210.0	Vero	32.0	0.15	05/19/87
	VEE	>0.6	>0.2	--	Vero	>320.0	--	05/19/87
	JE	0	0	--	Vero	320.0	--	05/19/87
	SF	0.1	0.03	--	Vero	32.0	--	08/11/87
	VV	0.1	0.03	--	Vero	(320.0	--	06/11/87
	Ad	0	0	--	HEp-2	(320.0	--	06/11/87
	VSV	0	0	--	L929	100.0	--	06/12/87
2603	PT	0.54	0.18	--	Vero	100.0	--	04/10/87
	YFV	0	0	--	Vero	32.0	--	04/10/87
	JE	0	0	--	Vero	32.0	--	04/10/87
	SF	0	0	--	Vero	(320.0	--	04/10/87
	VV	0.4	0.13	--	Vero	(320.0	--	06/11/87
	Ad	0.7	0.23	178.7	HEp-2	320.0	1.79	06/11/87
	VSV	0	0	--	L929	(320.0	--	06/12/87
2604	PT							
	VEE	0.3	0.1	32.0	Vero	32.0	1.0	04/28/87
	YFV							

	JE	0	0	--	Vero	10.0	--	04/13/87
	SF	0.25	0.08	--	Vero	32.0	--	04/13/87
	VV	0.55	0.18	--	Vero	100.0	--	06/11/87
	Ad	1.15	0.38	129.4	HEp-2	320.0	2.5	06/11/87
	VSV	0	0	--	L929	100.0	--	06/12/87
2605	PT							
	VEE	0	0	--	Vero	320.0	--	04/28/87
	YFV							
	JE	0	0	--	Vero	100.0	--	04/13/87
	SF	1.2	0.4	320.0	Vero	320.0	1.0	04/13/87
	VV	0.15	0.05	--	Vero	320.0	--	06/11/87
	Ad	0.55	0.18	221.96	HEp-2	320.0	1.44	06/11/87
	VSV	0	0	--	L929	320.0	--	05/19/87
2606	PT							
	VEE	0	0	--	Vero	32.0	--	04/28/87
	YFV							
	JE	0	0	--	Vero	10.0	--	04/13/87
	SF	0.85	0.28	14.37	Vero	32.0	2.23	04/13/87
	VV	0.6	0.2	320.0	Vero	320.0	1.0	06/11/87
	Ad	0.6	0.2	178.78	HEp-2	320.0	1.79	06/11/87
	VSV	0	0	--	L929	100.0	--	05/19/87
2607	PT							
	VEE	0	0	--	Vero	32.0	--	05/19/87
	YFV	0	0	--	Vero	100.0	--	05/19/87
	JE	0	0	--	Vero	32.0	--	05/19/87
	SF	0	0	--	Vero	(100.0)	--	05/19/87
	VV	0	0	--	Vero	3.2	--	08/11/87
	VV	0	0	--	Vero	100.0	--	06/11/87
	Ad	0.3	0.1	--	HEp-2	(3.2)	--	06/11/87
	VSV	0	0	--	L929	10.0	--	05/19/87
2608	PT							
	VEE	0	0	--	Vero	320.0	--	04/28/87
	YFV							
	JE	0	0	--	Vero	320.0	--	04/13/87
	SF	0.45	0.15	--	Vero	320.0	--	04/13/87
	VV	0	0	--	Vero	(320.0)	--	06/11/87
	Ad	0.7	0.23	169.7	HEp-2	320.0	1.89	06/11/87
	VSV	0	0	--	L929	100.0	--	05/19/87
2609	PT							
	VEE	0	0	--	Vero	320.0	--	04/28/87
	YFV							
	JE	0	0	--	Vero	100.0	--	04/13/87
	SF	0.45	0.15	320.0	Vero	100.0	3.2	04/13/87
	VV	0.2	0.07	--	Vero	320.0	--	06/11/87
	Ad	0.2	0.07	--	HEp-2	(320.0)	--	06/11/87
	VSV	0	0	--	L929	320.0	--	05/19/87
2610	PT							
	VEE	1.12	0.37	--	Vero	100.0	--	04/14/87
	YFV	0.15	0.05	--	Vero	320.0	--	04/28/87
	YFV	0.25	0.08	--	Vero	100.0	--	04/14/87
	JE	0	0	--	Vero	320.0	--	04/14/87
	SF	0.7	0.23	320.0	Vero	320.0	1.0	04/14/87
	VV	0	0	--	Vero	320.0	--	06/11/87
	Ad	0.7	0.23	169.7	HEp-2	320.0	1.89	06/11/87
	VSV	0	0	--	L929	100.0	--	05/19/87

2611	PT	0.75	0.25	75.24	Vero	10.0	0.13	04/14/87
	VEE	0	0	--	Vero	100.0	--	04/28/87
	YFV	0.2	0.07	--	Vero	100.0	--	04/14/87
	JE	0	0	--	Vero	320.0	--	04/14/87
	SF	0.25	0.08	--	Vero	100.0	--	04/14/87
	VV	0.4	0.13	99.88	Vero	100.0	1.0	06/11/87
	Ad	0	0	--	HEP-2	32.0	--	06/11/87
	VSV	0	0	--	L929	32.0	--	05/19/87
2612	PT	1.6	0.53	9.8	Vero	100.0	10.2	04/14/87
	PT	0.20	0.07	--	Vero	100.0	--	08/21/87
	VEE	0	0	--	Vero	320.0	--	04/28/87
	YFV	0.9	0.3	210.0	Vero	320.0	1.5	04/14/87
	JE	0.05	0.017	--	Vero	320.0	--	04/14/87
	SF	1.6	0.53	71.84	Vero	320.0	4.45	04/14/87
	VV	0.25	0.08	--	Vero	100.0	--	06/11/87
	Ad	0.8	0.27	64.04	HEP-2	100.0	1.56	06/11/87
	VSV	0	0	--	L929	32.0	--	05/19/87
2613	PT	0.85	0.28	--	Vero	320.0	--	04/14/87
	VEE	0.95	0.32	59.09	Vero	100.0	1.69	04/29/87
	YFV	0	0	--	Vero	320.0	--	04/14/87
	JE	0	0	--	Vero	320.0	--	04/14/87
	SF	0	0	--	Vero	320.0	--	04/14/87
	VV	0.2	0.07	--	Vero	320.0	--	06/11/87
	Ad	0.35	0.12	--	HEP-2	100.0	--	06/11/87
	VSV	0	0	--	L929	320.0	--	05/19/87
2614	PT	1.4	0.47	67.66	Vero	10.0	0.15	04/14/87
	VEE	0.75	0.25	233.9	Vero	32.0	0.14	04/29/87
	YFV	1.2	0.4	93.18	Vero	32.0	0.34	04/14/87
	JE	0	0	--	Vero	320.0	--	04/14/87
	SF	0.6	0.2	297.9	Vero	100.0	0.34	04/14/87
	VV	0.4	0.13	--	Vero	320.0	--	06/18/87
	Ad	0.25	0.08	--	HEP-2	320.0	--	06/18/87
	VSV	0	0	--	L929	10.0	--	05/19/87
2615	PT	0.7	0.23	98.78	Vero	32.0	0.32	04/15/87
	VEE	0.25	0.08	--	Vero	320.0	--	04/29/87
	YFV	1.2	0.4	93.18	Vero	32.0	0.34	04/15/87
	JE	0	0	--	Vero	320.0	--	04/15/87
	SF	0.6	0.2	297.9	Vero	100.0	0.34	04/14/87
	VV	1.1	0.37	295.8	Vero	320.0	1.08	06/18/87
	Ad	0.15	0.05	--	HEP-2	320.0	--	06/18/87
	VSV	0.15	0.05	--	L929	32.0	--	05/19/87
2616	PT	0.6	0.2	--	Vero	320.0	--	04/15/87
	VEE	0.6	0.2	--	Vero	320.0	--	04/29/87
	YFV	0.15	0.05	--	Vero	320.0	--	04/15/87
	JE	0	0	--	Vero	320.0	--	04/15/87
	SF	0.25	0.08	--	Vero	100.0	--	04/15/87
	VV	0	0	--	Vero	320.0	--	06/18/87
	Ad	0.6	0.2	178.8	HEP-2	320.0	1.79	06/18/87
	VSV	0	0	--	L929	100.0	--	05/19/87
2617	PT	0.45	0.15	--	Vero	32.0	--	04/15/87
	VEE	0.45	0.15	91.8	Vero	32.0	0.35	04/29/87
	YFV	1.3	0.43	144.2	Vero	320.0	2.2	04/15/87
	JE	0.35	0.12	314.9	Vero	320.0	1.02	04/15/87
	SF	0.05	0.017	--	Vero	100.0	--	04/15/87

	VV	0.3	0.1	--	Vero	320.0	--	06/18/87
	Ad	0.25	0.08	--	HEP-2	100.0	--	06/18/87
	VSV	0	0	--	L929	100.0	--	05/19/87
2618	PT	0.3	0.1	--	Vero	10.0	--	04/15/87
	VEE	0	0	--	Vero	32.0	--	04/29/87
	YFV	1.1	0.37	85.49	Vero	32.0	0.37	04/15/87
	JE	0.15	0.05	--	Vero	100.0	--	04/15/87
	SF	0	0	--	Vero	32.0	--	04/15/87
	VV	0.35	0.12	--	Vero	320.0	--	06/18/87
	Ad	0.3	0.1	--	HEP-2	320.0	--	06/18/87
	VSV	0.15	0.05	--	L929	100.0	--	05/19/87
2619	PT	1.1	0.37	92.89	Vero	100.0	1.08	04/15/87
	VEE	0.15	0.05	--	Vero	320.0	--	04/29/87
	YFV	1.1	0.37	98.5	Vero	100.0	1.02	04/15/87
	JE	0.5	0.02	--	Vero	100.0	--	04/15/87
	SF	0.7	0.23	217.0	Vero	100.0	0.46	04/15/87
	VV	0.15	0.05	--	Vero	100.0	--	06/18/87
	Ad	0.1	0.03	--	HEP-2	100.0	--	06/18/87
	VSV	0	0	--	L929	32.0	--	05/19/87
2620	PT	0.73	0.24	82.8	Vero	100.0	1.2	04/16/87
	VEE	0.25	0.08	--	Vero	100.0	--	04/29/87
	YFV							
	JE	0	0	--	Vero	100.0	--	04/16/87
	SF	0.3	0.1	--	Vero	100.0	--	04/16/87
	VV	0.25	0.08	--	Vero	100.0	--	06/18/87
	Ad	0	0	--	HEP-2	100.0	--	06/18/87
	VSV	0	0	--	L929	32.0	--	05/19/87
2621	PT	0.45	0.15	--	Vero	32.0	--	04/16/87
	VEE	0.92	0.3	151.1	Vero	320.0	2.12	05/12/87
	YFV							
	JE	0	0	--	Vero	320.0	--	04/16/87
	SF	0	0	--	Vero	100.0	--	04/16/87
	VV	0.35	0.12	--	Vero	320.0	--	06/18/87
	Ad	0	0	--	HEP-2	320.0	--	06/18/87
	VSV	0	0	--	L929	320.0	--	05/19/87
2622	PT	0.28	0.09	--	Vero	320.0	--	04/16/87
	VEE	0.55	0.18	--	Vero	100.0	--	05/12/87
	YFV							
	JE	0.3	0.1	--	Vero	320.0	--	04/16/87
	SF	0.7	0.23	178.7	Vero	320.0	1.79	04/16/87
	VV	0	0	--	Vero	320.0	--	06/18/87
	Ad	0.6	0.2	178.8	HEP-2	320.0	1.79	06/18/87
	VSV	0	0	--	L929	100.0	--	05/19/87
2623	PT	0.4	0.13	--	Vero	320.0	--	04/16/87
	VEE	0	0	--	Vero	10.32	--	05/12/87
	YFV							
	JE	0.1	0.03	--	Vero	320.0	--	04/16/87
	SF	0.5	0.17	303.4	Vero	100.0	0.33	04/16/87
	VV	0	0	--	Vero	320.0	--	06/18/87
	Ad	0.1	0.03	--	HEP-2	320.0	--	06/18/87
	VSV	0	0	--	L929	100.0	--	05/19/87
2624	PT	0.55	0.18	--	Vero	320.0	--	04/16/87
	VEE	1.2	0.4	256.8	Vero	100.0	0.39	05/12/87

B-120

	YFV							
	JE	0	0	--	Vero	320.0	--	04/16/87
	SF	0.55	0.18	300.3	Vero	320.0	1.07	04/16/87
	VV	0.45	0.15	--	Vero	320.0	--	06/18/87
	Ad	0.65	0.22	200.0	HEP-2	320.0	1.6	06/18/87
	VSV	0	0	--	L929	320.0	--	05/19/87
2625	PT	1.0	0.33	64.0	Vero	32.0	0.5	04/17/87
	VEE	0.1	0.03	--	Vero	320.0	--	05/12/87
	YFV	1.0	0.33	31.0	Vero	10.0	0.32	04/17/87
	JE	0.95	0.32	31.6	Vero	320.0	10.1	05/11/87
	JE	0	0	--	Vero	100.0	--	07/28/87
	VV	0.75	0.25	178.5	Vero	320.0	1.8	06/18/87
	Ad	>1.3	>0.4	178.6	HEP-2	>320.0	1.8	06/18/87
	VSV	0	0	--	L929	32.0	--	05/19/87
2626	PT	1.34	0.45	--	Vero	320.0	--	05/20/87
	YFV	0	0	--	Vero	>320.0	--	05/20/87
	VEE	0	0	--	Vero	320.0	--	05/20/87
	JE	0	0	--	Vero	>320.0	--	05/20/87
	SF	0	0	--	Vero	>320.0	--	05/20/87
	VV	0	0	--	Vero	320.0	--	06/18/87
	Ad	0.45	0.15	217.0	HEP-2	320.0	1.47	06/18/87
	VSV	0	0	--	L929	100.0	--	05/19/87
2627	PT	0.8	0.27	--	Vero	<320.0	--	04/17/87
	YFV	0.1	0.03	--	Vero	100.0	--	04/17/87
	JE	0	0	--	Vero	<320.0	--	05/11/87
	VV	0	0	--	Vero	320.0	--	06/18/87
	Ad	0.45	0.15	217.0	HEP-2	320.0	1.47	06/18/87
	VSV	0	0	--	L929	320.0	--	05/19/87
2628	PT	1.3	0.43	--	Vero	<320.0	--	04/17/87
	VEE	1.85	0.62	--	Vero	320.0	--	05/12/87
	YFV	0	0	--	Vero	<320.0	--	04/17/87
	JE	0.3	0.1	--	Vero	100.0	--	05/11/87
	VV	0	0	--	Vero	<320.0	--	06/18/87
	Ad	0	0	--	HEP-2	<320.0	--	06/18/87
	VSV	0	0	--	L929	32.0	--	05/19/87
2629	PT	1.6	0.53	--	Vero	100.0	--	04/17/87
	VEE	1.2	0.4	--	Vero	100.0	--	05/12/87
	YFV	1.0	0.33	196.4	Vero	3.2	0.02	04/17/87
	JE	0	0	--	Vero	32.0	--	05/11/87
	VV	0.3	0.1	--	Vero	100.0	--	06/18/87
	Ad	0	0	--	HEP-2	32.0	--	06/18/87
	VSV	0	0	--	L929	32.0	--	05/19/87
2630	PT	0.95	0.32	86.8	Vero	100.0	1.15	04/17/87
	VEE	0.75	0.25	100.0	Vero	10.32	0.003	05/12/87
	YFV	3.75	1.25	6.43	Vero	320.0	49.8	04/17/87
	YFV	3.79	1.26	2.61	Vero	100.0	38.34	07/29/87
	JE	0.65	0.22	219.3	Vero	100.0	0.46	05/11/87
	VV	0.55	0.18	--	Vero	320.0	--	06/18/87
	Ad	0.6	0.2	--	HEP-2	<320.0	--	06/18/87
	VSV	0.9	0.3	210.0	L929	320.0	1.52	05/19/87
2631	PT	1.8	0.6	48.2	Vero	100.0	2.08	04/20/87
	VEE	1.8	0.6	56.7	Vero	320.0	5.6	05/12/87
	YFV	2.8	0.93	16.5	Vero	100.0	6.1	04/20/87

	JE	2.3	0.77	104.2	Vera	320.0	3.07	04/20/87
	SF	1.0	0.33	96.9	Vera	100.0	1.03	04/20/87
	VV	1.05	0.35	--	Vera	320.0	--	06/18/87
	Ad	0	0	--	HEP-2	320.0	--	06/18/87
	VSV	0.75	0.25	210.0	L929	100.0	0.48	05/19/87
2632	PT	1.09	0.36	--	Vera	32.0	--	05/20/87
	YFV	0	0	--	Vera	10.0	--	05/20/87
	VEE	0	0	--	Vera	10.32	--	05/20/87
	JE	0	0	--	Vera	100.0	--	05/20/87
	SF	0.25	0.083	--	Vera	32.0	--	05/20/87
	VV	0.1	0.03	--	Vera	32.0	--	06/18/87
	Ad	0.3	0.1	--	HEP-2	100.0	--	06/18/87
	VSV	0	0	--	L929	32.0	--	05/19/87
2633	PT	0.92	0.31	--	Vera	32.0	--	05/20/87
	YFV	0	0	--	Vera	3.2	--	05/20/87
	VEE	0	0	--	Vera	32.0	--	05/20/87
	JE	0	0	--	Vera	100.0	--	05/20/87
	SF	0.2	0.07	--	Vera	32.0	--	05/20/87
	VV	0.3	0.1	--	Vera	100.0	--	06/18/87
	Ad	0.75	0.25	56.33	HEP-2	100.0	1.8	06/18/87
	VSV	0	0	--	L929	100.0	--	05/19/87
2634	PT	0.26	0.09	--	Vera	32.0	--	05/20/87
	YFV	0	0	--	Vera	10.0	--	05/20/87
	VEE	0.6	0.2	93.18	Vera	10.32	10.003	05/20/87
	JE	0	0	--	Vera	32.0	--	05/20/87
	SF	0.5	0.17	100.0	Vera	32.0	0.32	05/20/87
	VV	0	0	--	Vera	10.0	--	06/18/87
	Ad	0	0	--	HEP-2	10.0	--	06/18/87
	VSV	0	0	--	L929	32.0	--	05/19/87
2635	PT	0.52	0.17	--	Vera	10.0	--	05/20/87
	YFV	0	0	--	Vera	32.0	--	05/20/87
	VEE	0.5	0.17	88.01	Vera	32.0	0.36	05/20/87
	JE	0	0	--	Vera	100.0	--	05/20/87
	SF	0.3	0.1	32.0	Vera	32.0	1.0	05/20/87
	VV	0.6	0.2	17.9	Vera	32.0	1.8	06/18/87
	Ad	0	0	--	HEP-2	32.0	--	06/18/87
	VSV	0	0	--	L929	32.0	--	05/19/87
2636	PT	0.15	0.05	--	Vera	10.0	--	05/21/87
	YFV	0	0	--	Vera	10.0	--	05/21/87
	VEE	0.65	0.22	22.7	Vera	10.0	0.44	05/21/87
	JE	0	0	--	Vera	10.0	--	05/21/87
	SF	0.65	0.22	21.1	Vera	10.0	0.47	05/21/87
	VV	0	0	--	Vera	10.0	--	06/18/87
	Ad	0	0	--	HEP-2	10.0	--	06/18/87
	VSV	0	0	--	L929	32.0	--	05/19/87
2637	PT	0.45	0.15	--	Vera	10.0	--	05/21/87
	YFV	0	0	--	Vera	10.0	--	05/21/87
	VEE	0	0	--	Vera	10.32	--	05/21/87
	JE	0	0	--	Vera	10.0	--	05/21/87
	SF	0.75	0.25	66.0	Vera	10.0	0.15	05/21/87
	VV	0.4	0.13	7.52	Vera	10.0	1.33	06/18/87
	Ad	0	0	--	HEP-2	10.0	--	06/18/87
	VSV	0	0	--	L929	10.0	--	05/19/87

2638	PT	0.1	0.03	--	Vero	10.0	--	05/21/87	
	YFV	0	0	--	Vero	10.0	--	05/21/87	
	VEE	0.6	0.2	25.12	Vero	32.0	1.27	05/21/87	
	JE	0	0	--	Vero	32.0	--	05/21/87	
	SF	0.5	0.17	30.34	Vero	10.0	0.33	05/21/87	
	VV	0	0	--	Vero	10.0	--	06/18/87	
	Ad	0.3	0.1	10.0	HEP-2	10.0	1.0	06/18/87	
	VSV	0	0	--	L929	10.0	--	05/19/87	
Ara-A	VV	3.2	1.1	2.6	Vero	32.0	12.3	03/12/87	
	VV	3.7	1.23	1.26	Vero	32.0	25.4	05/07/87	
	VV	3.0	1.0	1.79	Vero	10.0	5.59	05/14/87	
	VV	3.0	1.0	1.0	Vero	10.0	10.0	06/04/87	
	VV	3.95	1.32	1.07	Vero	32.0	29.9	06/11/87	
	VV	3.25	1.08	1.13	Vero	10.0	8.8	06/18/87	
C-3-Deaza- ADD	VSV	2.0	0.67	5.59	L929	10.0	1.8	03/17/87	
	VSV	3.2	1.05	2.43	L929	10.0	4.1	05/01/87	
	VSV	2.65	0.88	2.54	L929	10.0	3.9	05/19/87	
	VSV	3.55	1.18	1.46	L929	10.0	6.87	06/05/87	
	VSV	3.2	1.07	2.46	L929	10.0	4.07	06/12/87	
Ribavirin	PT	2.95	0.98	12.5	Vero	100.0	7.98	04/20/87	
	PT	2.72	0.91	11.4	Vero	100.0	8.76	04/21/87	
	PT	2.59	0.86	16.5	Vero	100.0	6.08	04/22/87	
	PT	2.01	0.67	13.5	Vero	100.0	7.4	04/23/87	
	PT	2.03	0.68	18.7	Vero	100.0	5.35	04/24/87	
	PT	1.43	0.48	19.5	Vero	100.0	5.13	04/27/87	
	PT	1.7	0.57	20.1	Vero	100.0	4.97	04/28/87	
	PT	1.7	0.57	23.1	Vero	100.0	4.3	05/19/87	
	PT	2.25	0.75	10.9	Vero	100.0	9.2	05/18/87	
	PT	2.94	0.98	8.5	Vero	100.0	11.8	05/20/87	
	PT	2.65	0.88	5.3	Vero	100.0	18.8	05/21/87	
	PT	1.2	0.4	31.72	Vero	100.0	3.15	08/21/87	
	**	PT	N/A	N/A	6.33	Vero	100.0	15.8	04/29/87
		VEE	3.45	1.15	0.26	Vero	1.0	3.8	04/29/87
		VEE	1.95	0.65	7.5	Vero	3.2	0.4	05/05/87
		VEE	2.2	0.73	4.5	Vero	10.0	2.2	05/12/87
		VEE	2.5	0.83	5.8	Vero	32.0	5.5	05/18/87
		VEE	2.5	0.83	11.25	Vero	100.0	8.9	05/19/87
		VEE	1.5	0.5	19.9	Vero	32.0	1.6	05/20/87
		VEE	2.15	0.72	8.8	Vero	32.0	3.6	05/21/87
	YFV	0.7	0.23	81.3	Vero	100.0	1.23	05/18/87	
	YFV	0.6	0.2	93.18	Vero	100.0	1.07	05/19/87	
	JE	1.5	0.5	26.4	Vero	100.0	3.8	05/18/87	
	JE	2.5	0.83	20.4	Vero	100.0	4.9	05/19/87	
	JE	0.6	0.2	57.9	Vero	100.0	1.7	05/20/87	
	SF	2.95	0.98	4.15	Vero	32.0	7.7	05/18/87	
	SF	3.5	1.17	3.2	Vero	100.0	31.15	08/11/87	
	Ad	1.65	0.55	37.7	HEP-2	100.0	2.7	03/12/87	
	Ad	1.7	0.57	64.55	HEP-2	320.0	4.96	05/07/87	
	Ad	1.55	0.52	20.66	HEP-2	100.0	4.84	05/14/87	

	Ad	1.45	0.48	47.7	HEP-2	100.0	2.1	06/04/87	
	Ad	1.8	0.6	29.6	HEP-2	100.0	3.38	06/11/87	
	Ad	2.0	0.67	16.9	HEP-2	100.0	5.91	06/18/87	
Selenazole	PT	1.43	0.48	13.4	Vero	10.0	0.75	04/06/87	
	PT	2.3	0.77	1.8	Vero	3.2	1.8	04/07/87	
	PT	1.27	0.42	23.43	Vero	3.2	0.14	04/08/87	
	PT	1.52	0.51	9.6	Vero	3.2	0.33	04/09/87	
	PT	2.15	0.72	2.3	Vero	3.2	1.38	04/10/87	
	PT	1.32	0.44	21.09	Vero	10.0	0.47	04/14/87	
	PT	1.45	0.48	6.28	Vero	3.2	0.5	04/15/87	
	PT	1.3	0.43	23.35	Vero	3.2	0.14	04/16/87	
	PT	1.35	0.45	30.46	Vero	3.2	0.11	04/17/87	
		VEE	2.8	0.93	0.3	Vero	0.32	1.05	04/28/87
		YFV	2.25	0.75	3.07	Vero	1.0	0.33	04/06/87
		YFV	2.25	0.75	1.02	Vero	3.2	3.14	04/07/87
	YFV	2.65	0.88	1.5	Vero	3.2	2.1	04/08/87	
	YFV	3.2	1.1	0.97	Vero	3.2	3.3	04/09/87	
	YFV	3.5	1.2	0.75	Vero	3.2	4.3	04/10/87	
	YFV	2.75	0.92	1.48	Vero	3.2	2.16	04/14/87	
	YFV	3.15	1.05	0.56	Vero	1.0	1.8	04/15/87	
	YFV	2.4	0.8	2.55	Vero	1.0	0.4	04/17/87	
	YFV	3.2	1.1	0.97	Vero	3.2	3.3	04/20/87	
	YFV	2.2	0.73	2.98	Vero	3.2	1.1	04/21/87	
	YFV	2.35	0.78	3.00	Vero	1.0	0.33	04/22/87	
	YFV	2.4	0.8	2.98	Vero	3.2	1.1	04/23/87	
	YFV	2.4	0.8	2.98	Vero	3.2	1.1	04/24/87	
	YFV	1.2	0.4	0.87	Vero	1.0	1.15	04/27/87	
	YFV	2.75	0.92	0.96	Vero	1.0	1.04	04/28/87	
	YFV	2.45	0.82	0.57	Vero	1.0	1.77	05/20/87	
	YFV	2.35	0.78	0.56	Vero	1.0	1.8	05/21/87	
	YFV	2.44	0.81	4.09	Vero	3.2	0.78	07/07/87	
	YFV	2.39	0.8	1.57	Vero	3.2	2.03	07/29/87	
	JE	3.0	1.0	1.8	Vero	10.0	5.57	04/06/87	
	JE	2.1	0.71	2.2	Vero	10.0	4.5	04/07/87	
	JE	2.7	0.9	1.6	Vero	10.0	6.2	04/08/87	
	JE	3.77	1.26	0.6	Vero	10.0	16.5	04/09/87	
	JE	4.5	1.5	0.43	Vero	10.0	23.2	04/10/87	
	JE	3.0	1.0	0.94	Vero	10.0	10.7	04/13/87	
	JE	3.37	1.12	0.95	Vero	10.0	10.6	04/14/87	
	JE	3.3	1.1	1.2	Vero	10.0	8.2	04/15/87	
	JE	3.44	1.15	0.83	Vero	10.0	12.0	04/16/87	
	JE	2.8	0.83	1.07	Vero	3.2	2.98	04/20/87	
	JE	1.95	0.65	1.88	Vero	3.2	1.7	05/11/87	
	JE	2.25	0.75	2.56	Vero	3.2	1.3	05/21/87	
	JE	3.9	1.3	0.39	Vero	3.2	8.3	05/26/87	
	JE	2.7	0.9	1.5	Vero	3.2	2.09	07/28/87	
	SF	1.45	0.48	18.25	Vero	1.0	0.05	04/06/87	
	SF	1.15	0.38	24.97	Vero	1.0	0.04	04/07/87	
	SF	1.2	0.4	23.77	Vero	1.0	0.04	04/08/87	
	SF	1.95	0.65	6.6	Vero	3.2	0.5	04/09/87	
	SF	2.25	0.75	3.07	Vero	3.2	1.04	04/10/87	
	SF	2.4	0.8	2.98	Vero	1.0	0.34	04/13/87	
	SF	1.8	0.6	9.3	Vero	3.2	0.34	04/14/87	
	SF	2.15	0.72	3.15	Vero	1.0	0.32	04/15/87	
	SF	1.95	0.65	6.6	Vero	1.0	0.15	04/16/87	

SF	1.8	0.6	8.98	Vero	3.2	0.36	04/20/87
SF	2.05	0.68	4.57	Vero	3.2	0.7	04/21/87
SF	1.65	0.55	7.76	Vero	3.2	0.4	04/22/87
SF	1.8	0.6	7.4	Vero	1.0	0.14	04/23/87
SF	1.3	0.43	--	Vero	1.0	--	04/24/87
SF	1.55	0.52	32.0	Vero	1.0	0.03	05/20/87
SF	1.75	0.58	2.8	Vero	1.0	0.36	05/21/87
VV	2.55	0.85	10.5	Vero	10.0	0.95	03/12/87
VV	3.05	1.02	2.78	Vero	10.0	3.59	05/07/87
VV	1.85	0.62	9.19	Vero	10.0	1.09	05/14/87
VV	2.2	0.73	7.8	Vero	10.0	1.28	06/04/87
VV	1.8	0.6	10.24	Vero	3.2	0.31	06/11/87
VV	2.0	0.67	10.07	Vero	10.0	1.0	06/18/87
Ad	1.1	0.37	32.2	HEp-2	32.0	0.995	03/12/87
Ad	1.35	0.45	33.3	HEp-2	32.0	0.96	05/07/87
Ad	2.05	0.68	14.95	HEp-2	32.0	2.14	05/14/87
Ad	0.95	0.32	56.17	HEp-2	100.0	1.78	06/04/87
Ad	1.4	0.47	17.4	HEp-2	32.0	1.83	06/11/87
Ad	1.5	0.5	19.7	HEP-2	32.0	1.62	06/18/87

 VR*= Virus Rating calculated according to the method of Sidwell and
 Huffman (Appl. Microbiol. 22: 797-801, 1971).

**--PLAQUE REDUCTION ASSAY

UPDATED 08/31/87:ADB
 (Filename AVS2.19)

SHIPMENT NO. 20

AVS NO.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
2043	PT	0.05	0.02	--	Vero	3.2	--	06/10/87
	YFV	0.25	0.08	--	Vero	1.0	--	06/10/87
	JE	0	0	--	Vero	3.2	--	06/10/87
	SF	0	0	--	Vero	1.0	--	06/10/87
2044	PT	0.27	0.09	--	Vero	10.0	--	06/10/87
	YFV	0.4	0.13	--	Vero	32.0	--	06/10/87
	JE	0	0	--	Vero	320.0	--	06/10/87
	SF	0.3	0.1	100.0	Vero	100.0	1.0	06/10/87
2045	PT	0.9	0.3	--	Vero	320.0	--	06/10/87
	YFV	0	0	--	Vero	>100.0	--	06/10/87
	JE	>0.05	>0.02	--	Vero	>320.0	--	06/10/87
	SF	0	0	--	Vero	>100.0	--	06/10/87
2046	PT	0.5	0.17	--	Vero	3.2	--	06/10/87
	YFV	0	0	--	Vero	10.0	--	06/10/87
	JE	0.05	0.02	--	Vero	100.0	--	06/10/87
	SF	0	0	--	Vero	32.0	--	06/10/87
2047	PT	0.5	0.17	--	Vero	10.0	--	06/10/87
	YFV	0	0	--	Vero	100.0	--	06/10/87
	JE	0.05	0.02	--	Vero	100.0	--	06/10/87
	SF	0	0	--	Vero	32.0	--	06/10/87
2048	PT	0.15	0.05	--	Vero	10.0	--	06/10/87
	YFV	0	0	--	Vero	10.0	--	06/10/87
	JE	0	0	--	Vero	<100.0	--	06/10/87
	SF	0.2	0.07	--	Vero	10.0	--	06/10/87
2049	PT	0	0	--	Vero	320.0	--	06/10/87
	YFV	0.15	0.05	--	Vero	32.0	--	06/10/87
	JE	0	0	--	Vero	320.0	--	06/10/87
	SF	0	0	--	Vero	>100.0	--	06/10/87
2050	PT	0.3	0.10	--	Vero	32.0	--	06/10/87
	YFV	0.5	0.17	--	Vero	32.0	--	06/10/87
	JE	0	0	--	Vero	320.0	--	06/10/87
	SF	0.6	0.2	178.78	Vero	100.0	0.56	06/10/87
2051	PT	0	0	--	Vero	10.0	--	06/11/87
	YFV	0.65	0.22	23.4	Vero	3.2	0.14	06/11/87
	JE	0	0	--	Vero	10.0	--	06/11/87
	SF	0	0	--	Vero	3.2	--	06/11/87
2052	PT	0.05	0.02	--	Vero	3.2	--	06/11/87
	YFV	1.0	0.33	33.2	Vero	3.2	0.097	06/11/87
	JE	0	0	--	Vero	10.0	--	06/11/87
	SF	0.07	0.025	--	Vero	3.2	--	06/11/87
2053	PT	0.05	0.02	--	Vero	3.2	--	06/11/87
	YFV	0.08	0.03	--	Vero	<32.0	--	06/11/87
	JE	0	0	--	Vero	<32.0	--	06/11/87

	SF	0.2	0.07	--	Vero	3.2	--	06/11/87
2054	PT	0.45	0.15	284.8	Vero	100.0	0.35	06/11/87
	YFV	0.94	0.31	281.71	Vero	320.0	1.14	06/11/87
	JE	0	0	--	Vero	>320.0	--	06/11/87
	SF	0.85	0.28	118.08	Vero	100.0	0.85	06/11/87
2055	PT	0.1	0.03	--	Vero	100.0	--	06/11/87
	YFV	0	0	--	Vero	100.0	--	06/11/87
	JE	0	0	--	Vero	100.0	--	06/11/87
	SF	0.95	0.32	94.47	Vero	100.0	1.06	06/11/87
2056	PT	0.25	0.08	--	Vero	10.0	--	06/11/87
	YFV	0.3	0.1	--	Vero	32.0	--	06/11/87
	JE	0	0	--	Vero	10.0	--	06/11/87
	SF	0.55	0.18	18.85	Vero	32.0	1.7	06/11/87
2057	PT	0.5	0.17	--	Vero	100.0	--	06/11/87
	YFV	1.54	0.51	295.95	Vero	100.0	0.34	06/11/87
	JE	0	0	--	Vero	100.0	--	06/11/87
	SF	0.6	0.2	178.78	Vero	100.0	0.56	06/11/87
2058	PT	0.4	0.13	--	Vero	<10.0	--	06/11/87
	YFV	0.29	0.098	--	Vero	10.0	--	06/11/87
	JE	0	0	--	Vero	10.0	--	06/11/87
	SF	0.25	0.08	--	Vero	10.0	--	06/11/87
2059	PT	0.25	0.08	--	Vero	10.0	--	06/16/87
	JE	0	0	--	Vero	3.2	--	06/16/87
	SF	0.2	0.07	--	Vero	10.0	--	06/16/87
2060	PT	0.098	0.033	--	Vero	<10.0	--	06/16/87
	JE	0	0	--	Vero	<10.0	--	06/16/87
	SF	0	0	--	Vero	<10.0	--	06/16/87
2061	PT	0.5	0.17	--	Vero	<320.0	--	06/16/87
	JE	0	0	--	Vero	100.0	--	06/16/87
	SF	0.6	0.2	178.5	Vero	32.0	0.18	06/16/87
2062	PT	0.6	0.2	--	Vero	320.0	--	06/16/87
	JE	0	0	--	Vero	>320.0	--	06/16/87
	SF	0	0	--	Vero	100.0	--	06/16/87
2063	PT	0.55	0.18	--	Vero	32.0	--	06/16/87
	JE	0	0	--	Vero	32.0	--	06/16/87
	SF	0.3	0.1	32.0	Vero	10.0	0.31	06/16/87
2064	PT	0.09	0.03	--	Vero	3.2	--	06/16/87
	JE	0	0	--	Vero	100.0	--	06/16/87
	SF	0.6	0.2	178.8	Vero	32.0	0.18	06/16/87
2065	PT	0	0	--	Vero	10.32	--	06/16/87
	JE	0	0	--	Vero	10.0	--	06/16/87
	SF	0	0	--	Vero	1.0	--	06/16/87
2066	PT	0	0	--	Vero	3.2	--	06/16/87
	JE	0	0	--	Vero	<10.0	--	06/16/87
	SF	0	0	--	Vero	<10.0	--	06/16/87
2067	PT	0.175	0.058	--	Vero	100.0	--	06/16/87

	JE	0	0	--	Vera	100.0	--	06/16/87
	SF	0.65	0.22	169.67	Vera	32.0	0.19	06/16/87
2507	PT	>0.82	>0.27	--	Vera	>320.0	--	05/29/87
	YFV	0	0	--	Vera	>320.0	--	05/29/87
	JE	0	0	--	Vera	>320.0	--	05/29/87
	SF	0	0	--	Vera	320.0	--	05/29/87
	VV	>0.2	>0.07	--	Vera	>320.0	--	04/24/87
	VV	0	0	--	Vera	>320.0	--	05/14/87
	Ad	>0.2	>0.07	--	HEp-2	>320.0	--	04/24/87
	Ad	>0.3	>0.1	--	HEp-2	>320.0	--	05/14/87
	VSV	>0.1	>0.03	--	L929	>320.0	--	04/10/87
2508	PT	>1.5	>0.5	--	Vera	>320.0	--	06/01/87
	YFV	0	0	--	Vera	>320.0	--	06/01/87
	JE	0	0	--	Vera	>320.0	--	06/01/87
	SF	>0.5	>0.17	--	Vera	>320.0	--	06/01/87
	VV	0	0	--	Vera	>32.0	--	04/10/87
	Ad	0	0	--	HEp-2	>32.0	--	04/10/87
	VSV	0	0	--	L929	>32.0	--	04/10/87
2509	PT	0	0	--	Vera	<0.32	--	06/01/87
	YFV	0	0	--	Vera	<0.32	--	06/01/87
	JE	0	0	--	Vera	<0.32	--	06/01/87
	SF	0	0	--	Vera	<0.32	--	06/01/87
	VV	--	--	--	Vera	<0.1	--	04/10/87
	VV	0	0	--	Vera	0.032	--	05/28/87
	Ad	0	0	--	HEp-2	<0.1	--	04/10/87
	VSV	2.15	0.72	0.95	L929	0.32	0.34	04/10/87
2510	PT	0.65	0.22	--	Vera	32.0	--	06/01/87
	YFV	0	0	--	Vera	100.0	--	06/01/87
	JE	0.8	0.27	--	Vera	100.0	--	06/01/87
	SF	0	0	--	Vera	100.0	--	06/01/87
	VV	0	0	--	Vera	10.0	--	04/10/87
	Ad	0	0	--	HEp-2	>32.0	--	04/10/87
	VSV	>0.1	>0.03	--	L929	>32.0	--	04/10/87
2511	PT	0.45	0.15	--	Vera	10.0	--	06/01/87
	YFV	0	0	--	Vera	3.2	--	06/01/87
	JE	0	0	--	Vera	<32.0	--	06/01/87
	SF	0.85	0.28	12.9	Vera	3.2	0.25	06/01/87
	VV	0.85	0.28	11.2	Vera	3.2	0.29	04/10/87
	Ad	0	0	--	HEp-2	<3.2	--	04/10/87
	VSV	0	0	--	L929	3.2	--	04/10/87
2512	PT	0.7	0.23	--	Vera	320.0	--	06/01/87
	YFV	0	0	--	Vera	320.0	--	06/01/87
	JE	0	0	--	Vera	320.0	--	06/01/87
	SF	0.6	0.2	178.78	Vera	320.0	1.79	06/01/87
	VV	>2.1	>0.7	8.7	Vera	>32.0	3.7	04/10/87
	Ad	0	0	--	HEp-2	>32.0	--	04/10/87
	VSV	0	0	--	L929	>32.0	--	04/10/87
2513	PT	0.46	0.154	--	Vera	1.0	--	06/02/87
	YFV	0.15	0.05	--	Vera	1.0	--	06/02/87
	SF	0	0	--	Vera	<0.32	--	06/02/87
	VV	0	0	--	Vera	0.1	--	04/10/87
	Ad	0.8	0.27	--	HEp-2	0.32	--	04/10/87
	VSV	0.4	0.13	31.01	L929	10.0	0.32	04/10/87

2514	PT	0.66	0.22	109.8	Vero	3.2	0.03	06/02/87
	YFV	0.1	0.03	--	Vero	1.0	--	06/02/87
	SF	0.15	0.05	--	Vero	3.2	--	06/02/87
	VV	0.75	0.25	10.0	Vero	3.2	0.32	04/10/87
	Ad	>1.2	>0.4	--	HEp-2	>32.0	--	04/10/87
	VSV	0.4	0.13	31.01	L929	10.0	0.32	04/10/87
2515	PT	0.48	0.16	--	Vero	100.0	--	06/02/87
	YFV	0.45	0.15	--	Vero	100.0	--	06/02/87
	SF	0	0	--	Vero	100.0	--	06/02/87
	VV	>0.1	>0.03	--	Vero	>32.0	--	04/10/87
	Ad	0	0	--	HEp-2	>32.0	--	04/10/87
	VSV	0	0	--	L929	>32.0	--	04/10/87
2516	PT	0.52	0.17	--	Vero	100.0	--	06/02/87
	YFV	0.1	0.03	--	Vero	100.0	--	06/02/87
	SF	0	0	--	Vero	320.0	--	06/02/87
	VV	0	0	--	Vero	>32.0	--	04/10/87
	Ad	0	0	--	HEp-2	32.0	--	04/10/87
	VSV	0	0	--	L929	>32.0	--	04/10/87
2517	PT	0.16	0.053	--	Vero	<10.0	--	06/02/87
	YFV	0.8	0.27	--	Vero	3.2	--	06/02/87
	SF	1.05	0.35	3.5	Vero	10.0	2.8	06/02/87
	VV	0.15	0.05	--	Vero	3.2	--	04/10/87
	Ad	0.2	0.07	--	HEp-2	<10.0	--	04/10/87
	VSV	0.2	0.07	--	L929	3.2	--	04/10/87
2518	PT	0.45	0.15	6.84	Vero	10.0	1.46	06/26/87
	YFV	0.2	0.07	--	Vero	10.0	--	06/03/87
	SF	1.1	0.37	2.39	Vero	10.0	4.18	06/03/87
	VV	0.4	0.13	--	Vero	10.0	--	04/10/87
	Ad	0.3	0.1	--	HEp-2	<32.0	--	04/10/87
	VSV	0	0	--	L929	<10.0	--	04/10/87
2519	PT	0	0	--	Vero	1.0	--	06/26/87
	YFV	0.85	0.28	0.5	Vero	1.0	--	06/03/87
	SF	0	0	--	Vero	1.0	--	06/03/87
	VV	0.1	0.03	--	Vero	1.0	--	04/10/87
	Ad	0.1	0.03	--	HEp-2	1.0	--	04/10/87
	VSV	0	0	--	L929	<3.2	--	04/10/87
2520	PT	0.05	0.02	--	Vero	1.0	--	06/26/87
	YFV	0.15	0.05	--	Vero	10.0	--	06/03/87
	SF	1.05	0.35	2.6	Vero	3.2	1.2	06/03/87
	VV	0.7	0.23	9.7	Vero	10.0	--	04/10/87
	Ad	0	0	--	HEp-2	10.0	--	04/10/87
	VSV	0	0	--	L929	32.0	--	04/10/87
2521	PT	0	0	--	Vero	1.0	--	06/26/87
	YFV	0	0	--	Vero	1.0	--	06/03/87
	SF	0	0	--	Vero	1.0	--	06/03/87
	VV	0	0	--	Vero	1.0	--	04/10/87
	Ad	0	0	--	HEp-2	<0.1	--	04/10/87
	VSV	0	0	--	L929	0.1	--	04/10/87
2522	PT	0.099	0.033	--	Vero	1.0	--	06/26/87
	YFV	0.45	0.15	2.17	Vero	1.0	0.46	06/03/87

	SF	0.4	0.13	--	Vero	1.0	--	06/03/87
	VV	0	0	--	Vero	0.32	--	04/10/87
	Ad	0.4	0.13	--	HEp-2	<3.2	--	04/10/87
	VSV	0	0	--	L929	<3.2	--	04/10/87
2523	PT	>0.1	>0.03	--	Vero	>320.0	--	06/04/87
	YFV	0	0	--	Vero	>320.0	--	06/04/87
	SF	0	0	--	Vero	>320.0	--	06/04/87
	VV	0	0	--	Vero	>32.0	--	04/10/87
	Ad	0	0	--	HEp-2	>32.0	--	04/10/87
	VSV	0	0	--	L929	>32.0	--	04/10/87
2524	PT	0.12	0.04	--	Vero	32.0	--	06/04/87
	YFV	0	0	--	Vero	32.0	--	06/04/87
	SF	0	0	--	Vero	<100.0	--	06/04/87
	VV	0.6	0.2	6.60	Vero	10.0	1.52	04/10/87
	Ad	0	0	--	HEp-2	<10.0	--	04/10/87
	VSV	0	0	--	L929	10.0	--	04/10/87
2525	PT	0.33	0.11	--	Vero	100.0	--	06/04/87
	YFV	0	0	--	Vero	320.0	--	06/04/87
	SF	0	0	--	Vero	320.0	--	06/04/87
	VV	0	0	--	Vero	32.0	--	04/10/87
	Ad	0	0	--	HEp-2	>32.0	--	04/10/87
	VSV	0	0	--	L929	>32.0	--	04/10/87
2526	PT	0.2	0.17	--	Vero	320.0	--	06/04/87
	YFV	0	0	--	Vero	>320.0	--	06/04/87
	SF	0	0	--	Vero	>320.0	--	06/04/87
	VV	>0.9	>0.3	--	Vero	>32.0	--	04/24/87
	Ad	0	0	--	HEp-2	>32.0	--	04/24/87
	VSV	0	0	--	L929	>32.0	--	04/24/87
2527	PT	0.83	0.28	--	Vero	320.0	--	06/04/87
	VEE	1.4	0.47	36.9	Vero	320.0	3.3	05/12/87
	YFV	0	0	--	Vero	320.0	--	06/04/87
	SF	0	0	--	Vero	320.0	--	06/04/87
	VV	0	0	--	Vero	>32.0	--	04/24/87
	Ad	0	0	--	HEp-2	>32.0	--	04/24/87
	VSV	0	0	--	L929	>32.0	--	04/24/87
2528	PT	0.78	0.26	--	Vero	100.0	--	06/05/87
	YFV	0.6	0.2	56.5	Vero	32.0	0.57	06/05/87
	SF	0.6	0.2	56.5	Vero	32.0	0.57	06/05/87
	VV	0.25	0.08	--	Vero	32.0	--	04/24/87
	Ad	0	0	--	HEp-2	32.0	--	04/24/87
	VSV	>0.4	>0.13	--	L929	>32.0	--	04/24/87
2529	PT	--	--	--	Vero	<0.32	--	06/05/87
	YFV	--	--	--	Vero	<0.32	--	06/05/87
	SF	--	--	--	Vero	<0.32	--	06/05/87
	VV	--	--	--	Vero	<0.32	--	04/24/87
	Ad	>1.4	>0.47	<0.032	HEp-2	0.1	>3.1	04/24/87
	VSV	1.65	0.55	0.093	L929	<0.032	0.3	04/24/87
2530	PT	0.09	0.03	--	Vero	100.0	--	06/05/87
	YFV	0.2	0.07	--	Vero	<320.0	--	06/05/87
	SF	0.1	0.03	--	Vero	<320.0	--	06/05/87
	VV	0	0	--	Vero	>32.0	--	04/24/87
	Ad	0	0	--	HEp-2	>32.0	--	04/24/87

	VSV	0	0	--	L929	>32.0	--	04/24/87
2531	PT	0.48	0.16	--	Vero	3.2	--	06/05/87
	YFV	0.6	0.2	17.88	Vero	10.0	0.56	06/05/87
	SF	1.35	0.45	4.86	Vero	10.0	2.06	06/05/87
	VV	0.8	0.27	--	Vero	32.0	--	04/24/87
	Ad	0	0	--	HEp-2	<3.2	--	04/24/87
	VSV	0.1	0.03	--	L929	3.2	--	04/24/87
2532	PT	0	0	--	Vero	1.0	--	06/05/87
	YFV	0	0	--	Vero	3.2	--	06/05/87
	SF	0	0	--	Vero	3.2	--	06/05/87
	VV	0.15	0.05	--	Vero	1.0	--	04/24/87
	Ad	0.3	0.1	--	HEp-2	1.0	--	04/24/87
	VSV	0.1	0.03	--	L929	<10.0	--	04/24/87
2533	PT	(TOXIC)		--	Vero	<0.32	--	06/08/87
	YFV	(TOXIC)		--	Vero	<0.32	--	06/08/87
	JE	(TOXIC)		--	Vero	<0.32	--	06/08/87
	SF	(TOXIC)		--	Vero	<0.32	--	06/08/87
	VV	(Toxic. QNS for retest until additional compd. is rec'd.)						
	Ad	0	0	--	HEp-2	<0.1	--	04/24/87
	VSV	1.35	0.45	3.07	L929	0.1	0.03	04/24/87
2534	PT	0.2	0.07	--	Vero	<0.32	--	06/08/87
	YFV	0.4	0.13	--	Vero	3.2	--	06/08/87
	JE	0	0	--	Vero	<1.0	--	06/08/87
	SF	0.05	0.017	--	Vero	3.2	--	06/08/87
	VV	1.3	0.43	1.82	Vero	0.32	0.18	04/24/87
	Ad	0.55	0.18	3.16	HEp-2	0.32	0.1	04/24/87
	VSV	0.1	0.03	--	L929	1.0	--	04/24/87
2535	PT	>1.35	>0.45	--	Vero	>320.0	--	06/08/87
	YFV	>0.9	>0.3	--	Vero	>320.0	--	06/08/87
	JE	0	0	--	Vero	>320.0	--	06/08/87
	SF	0	0	--	Vero	>320.0	--	06/08/87
	VV	0	0	--	Vero	>32.0	--	04/24/87
	Ad	0	0	--	HEp-2	>32.0	--	04/24/87
	VSV	0	0	--	L929	>32.0	--	04/24/87
2536	PT	>1.6	>0.53	--	Vero	>320.0	--	06/08/87
	YFV	0	0	--	Vero	>320.0	--	06/08/87
	JE	0	0	--	Vero	>320.0	--	06/08/87
	SF	0	0	--	Vero	>320.0	--	06/08/87
	VV	0	0	--	Vero	>32.0	--	04/24/87
	Ad	0	0	--	HEp-2	>32.0	--	04/24/87
	VSV	0	0	--	L929	>32.0	--	04/24/87
2537	PT	0.48	0.16	--	Vero	32.0	--	06/08/87
	YFV	0.2	0.17	--	Vero	32.0	--	06/08/87
	JE	0	0	--	Vero	<100.0	--	06/08/87
	SF	0.4	0.13	100.0	Vero	32.0	0.32	05/08/87
	VV	0	0	--	Vero	32.0	--	04/24/87
	Ad	0	0	--	HEp-2	>32.0	--	04/24/87
	VSV	>0.2	>0.07	--	L929	>32.0	--	04/24/87
2538	PT	0.05	0.02	--	Vero	100.0	--	06/18/87
	YFV	>1.39	>0.46	--	Vero	>320.0	--	07/07/87
	JE	0	0	--	Vero	320.0	--	06/18/87
	SF	0.57	0.19	--	Vero	320.0	--	07/07/87

	VV	0	0	--	Vero	>320.0	--	04/24/87
	Ad	0	0	--	HEp-2	>320.0	--	04/24/87
	VSV	0	0	--	L929	>320.0	--	04/10/87
2540	PT	0.05	0.02	--	Vero	320.0	--	07/07/87
	YFV	>0.79	>0.26	--	Vero	>320.0	--	07/07/87
	JE	0.124	0.041	--	Vero	320.0	--	06/18/87
	SF	>0.35	>0.12	--	Vero	>320.0	--	07/07/87
	VV	0	0	--	Vero	>320.0	--	04/24/87
	Ad	0	0	--	HEp-2	>320.0	--	04/24/87
	VSV	0	0	--	L929	>320.0	--	04/10/87
2541	PT	0.8	0.27	116.2	Vero	10.0	0.09	06/18/87
	YFV	0.1	0.03	--	Vero	10.0	--	07/07/87
	JE	0	0	--	Vero	10.32	--	06/18/87
	SF	0	0	--	Vero	3.2	--	07/07/87
	VV	0.1	0.03	--	Vero	10.0	--	04/24/87
	Ad	(Toxic--Retest at (0.32 ug/ml)						
	VSV	0	0	--	L929	3.2	--	04/10/87
2542	PT	0.098	0.033	--	Vero	1.0	--	06/18/87
	YFV	0.1	0.03	--	Vero	1.0	--	07/07/87
	JE	0.6	0.2	0.61	Vero	10.32	0.53	06/18/87
	SF	0	0	--	Vero	3.2	--	07/07/87
	VV	0.9	0.3	6.37	Vero	10.0	1.57	04/24/87
	Ad	0	0	--	HEp-2	10.0	--	04/24/87
	VSV	0.3	0.1	--	L929	32.0	--	04/10/87
2544	PT							
	VV	0	0	--	Vero	<10.0	--	04/24/87
	Ad	0	0	--	HEp-2	<3.2	--	04/24/87
	VSV	0	0	--	L929	3.2	--	04/24/87
2564	PT							
	VV	(Toxic. QNS for retest until additional compd. is rec'd.)						
	Ad	(Toxic. QNS for retest until additional compd. is rec'd.)						
	VSV	0	0	--	L929	>32.0	--	04/24/87
2860	PT	0.05	0.017	--	Vero	10.0	--	05/28/87
	VEE	0.8	0.27	--	Vero	32.0	--	05/28/87
	JE	0.53	0.18	--	Vero	32.0	--	05/28/87
	YFV	0.15	0.05	--	Vero	3.2	--	05/28/87
	VV	2.45	0.82	3.2	Vero	32.0	10.0	05/07/87
	Ad	0.7	0.23	9.6	HEp-2	10.0	1.04	05/07/87
	VSV	0.05	0.02	--	L929	32.0	--	05/01/87
2861	PT	0.15	0.05	--	Vero	32.0	--	05/28/87
	VEE	0.1	0.03	--	Vero	100.0	--	05/28/87
	JE	1.63	0.54	94.1	Vero	100.0	1.06	05/28/87
	YFV	0.05	0.017	--	Vero	3.2	--	05/28/87
	VV	0	0	--	Vero	>320.0	--	05/07/87
	Ad	0.45	0.15	--	HEp-2	320.0	--	05/07/87
	VSV	0	0	--	L929	32.0	--	05/01/87
2862	PT	0.04	0.013	--	Vero	3.2	--	05/28/87
	VEE	0	0	--	Vero	100.0	--	05/28/87
	JE	0	0	--	Vero	3.2	--	05/28/87
	YFV	0	0	--	Vero	3.2	--	05/28/87
	VV	0.55	0.18	58.13	Vero	100.0	1.72	05/07/87
	Ad	0.6	0.2	2.24	HEp-2	3.2	1.43	05/07/87

	VSV	0	0	--	L929	3.2	--	05/01/87
2863	PT	0.16	0.05	--	Vero	1.0	--	05/28/87
	VEE	0.2	0.07	--	Vero	32.0	--	05/28/87
	JE	0	0	--	Vero	3.2	--	05/29/87
	YFV	0	0	--	Vero	1.0	--	05/28/87
	VV	0.1	0.03	--	Vero	3.2	--	05/07/87
	Ad	0.25	0.08	--	HEp-2	1.0	--	05/07/87
	VSV	0	0	--	L929	3.2	--	05/01/87
2864	PT	0.36	0.12	--	Vero	100.0	--	05/28/87
	VEE	>0.3	>0.1	--	Vero	>320.0	--	05/28/87
	JE	0.25	0.08	--	Vero	320.0	--	05/28/87
	YFV	0.15	0.05	--	Vero	32.0	--	05/28/87
	VV	>0.1	>0.03	--	Vero	>320.0	--	05/07/87
	Ad	0.3	0.1	100.0	HEp-2	100.0	1.0	05/07/87
	VSV	0	0	--	L929	100.0	--	05/01/87
2865	PT	0.48	0.16	--	Vero	32.0	--	05/29/87
	YFV	0	0	--	Vero	10.0	--	05/29/87
	JE	0	0	--	Vero	100.0	--	05/29/87
	SF	0	0	--	Vero	10.0	--	05/29/87
	VV	0.05	0.017	--	Vero	320.0	--	05/07/87
	Ad	0.55	0.18	--	HEp-2	100.0	--	05/07/87
	VSV	0	0	--	L929	320.0	--	05/01/87
2866	PT	0.4	0.13	--	Vero	320.0	--	05/29/87
	YFV	0.1	0.03	--	Vero	100.0	--	05/29/87
	JE	0	0	--	Vero	>320.0	--	05/29/87
	SF	0	0	--	Vero	100.0	--	05/29/87
	VV	>1.8	>0.6	100.4	Vero	>320.0	3.19	05/07/87
	Ad	0.15	0.05	--	HEp-2	100.0	--	05/07/87
	VSV	0	0	--	L929	320.0	--	05/01/87
2867	PT	0.06	0.02	--	Vero	<10.32	--	05/29/87
	YFV	0	0	--	Vero	<10.32	--	05/29/87
	JE	0	0	--	Vero	<10.0	--	05/29/87
	SF	0	0	--	Vero	<10.32	--	05/29/87
	VV	0	0	--	Vero	3.2	--	05/07/87
	Ad	0.15	0.05	--	HEp-2	1.0	--	05/07/87
	VSV	0	0	--	L929	1.0	--	05/01/87
2868	PT	0.14	0.047	--	Vero	3.2	--	05/29/87
	YFV	0	0	--	Vero	1.0	--	05/29/87
	JE	0	0	--	Vero	<10.0	--	05/29/87
	SF	0	0	--	Vero	1.0	--	05/29/87
	VV	0	0	--	Vero	<10.0	--	05/07/87
	Ad	0.3	0.1	--	HEp-2	<3.2	--	05/07/87
	VSV	0	0	--	L929	10.0	--	05/01/87
Ara-A	VV	3.2	1.07	1.35	Vero	10.0	7.4	04/10/87
	VV	3.15	1.05	0.98	Vero	3.2	3.3	04/24/87
	VV	3.7	1.23	1.26	Vero	32.0	25.4	05/07/87
	VV	3.0	1.0	1.79	Vero	10.0	5.59	05/14/87
	VV	3.85	1.28	1.09	Vero	32.0	29.46	05/28/87
C-3-Deaza-								
Adc	VSV	4.25	1.42	0.63	L929	10.0	15.9	04/10/87
	VSV	3.1	1.03	2.54	L929	10.0	3.9	04/24/87
	VSV	3.2	1.05	2.43	L929	10.0	4.1	05/01/87

Ribavirin	PT	2.09	0.7	15.06	Vero	32.0	2.12	05/28/87
	PT	1.54	0.51	11.54	Vero	32.0	2.77	05/29/87
	PT	2.6	0.87	3.69	Vero	32.0	8.67	06/01/87
	PT	1.35	0.45	27.37	Vero	32.0	1.17	06/02/87
	PT	>1.54	>0.51	29.30	Vero	>100.0	3.41	06/04/87
	PT	2.10	0.70	12.97	Vero	100.0	7.71	06/11/87
	PT	2.34	0.78	9.01	Vero	100.0	11.09	06/16/87
	PT	2.725	0.091	11.6	Vero	100.0	8.64	06/05/87
	PT	2.3	0.77	10.3	Vero	32.0	3.10	06/08/87
	PT	2.2	0.73	9.7	Vero	32.0	3.3	06/10/87
	PT	1.25	0.42	17.6	Vero	32.0	1.82	06/18/87
	PT	2.3	0.77	10.98	Vero	100.0	3.1	06/19/87
	PT	1.5	0.5	8.96	Vero	3.2	0.36	06/26/87
	VEE	2.2	0.73	4.5	Vero	10.0	2.2	05/12/87
	VEE	>2.9	>0.97	11.8	Vero	>100.0	8.5	05/28/87
	JE	1.55	0.52	12.6	Vero	100.0	7.9	06/01/87
	SF	3.0	1.0	3.98	Vero	32.0	8.05	06/01/87
	SF	2.3	0.77	3.77	Vero	32.0	8.5	06/02/87
	SF	2.3	0.77	3.82	Vero	10.0	2.6	06/03/87
	SF	>2.6	>0.87	15.9	Vero	>100.0	6.28	06/04/87
	SF	2.8	0.93	4.25	Vero	32.0	7.5	06/05/87
	SF	3.0	1.0	5.65	Vero	100.0	17.69	06/08/87
	SF	3.0	1.0	5.66	Vero	100.0	17.68	06/10/87
	SF	>3.5	>1.17	5.13	Vero	>100.0	19.5	06/11/87
	SF	1.4	0.47	13.4	Vero	3.2	0.24	06/16/87
	SF	3.19	1.06	2.9	Vero	32.0	10.99	07/07/87
	Ad	1.55	0.52	35.9	HEp-2	100.0	2.8	04/10/87
	Ad	1.75	0.58	33.0	HEp-2	100.0	3.0	04/24/87
	Ad	1.7	0.57	64.55	HEp-2	320.0	4.96	05/07/87
	Ad	1.55	0.52	20.66	HEp-2	100.0	4.84	05/14/87
Selenazole	PT							
	YFV	1.4	0.47	0.73	Vero	1.0	1.36	05/28/87
	YFV	2.6	0.87	1.6	Vero	3.2	2.0	05/29/87
	YFV	3.0	1.0	1.01	Vero	3.2	3.18	06/01/87
	YFV	0.85	0.28	0.17	Vero	0.32	1.9	06/02/87
	YFV	1.3	0.43	1.59	Vero	1.0	0.63	06/03/87
	YFV	2.1	0.7	3.29	Vero	3.2	0.97	06/04/87
	YFV	2.4	0.8	5.65	Vero	10.0	1.77	06/05/87
	YFV	1.9	0.63	1.59	Vero	1.0	0.63	06/08/87
	YFV	1.95	0.65	5.31	Vero	3.2	0.60	06/10/87
	YFV	3.2	1.07	1.08	Vero	3.2	2.95	06/11/87
	YFV	2.44	0.81	4.09	Vero	3.2	0.78	07/07/87
	JE	3.02	1.0	0.45	Vero	3.2	7.2	05/28/87
	JE	3.54	1.2	0.70	Vero	10.0	14.3	05/29/87
	JE	0.65	0.22	48.07	Vero	100.0	2.08	06/08/87
	JE	3.09	1.03	0.78	Vero	3.2	4.09	06/10/87
	JE	1.65	0.55	2.79	Vero	3.2	1.15	06/11/87
	JE	1.85	0.62	1.51	Vero	3.2	2.12	06/16/87
	JE	2.3	0.77	2.05	Vero	3.2	1.56	06/18/87
	SF	1.9	0.63	7.34	Vero	3.2	0.44	05/29/87

VV	1.85	0.62	15.83	Vero	10.0	0.63	04/10/87
VV	2.6	0.87	5.0	Vero	10.0	2.0	04/24/87
VV	3.05	1.02	2.8	Vero	10.0	3.59	05/07/87
VV	1.85	0.62	9.19	Vero	10.0	1.09	05/14/87
VV	2.3	0.77	9.48	Vero	10.0	1.06	05/28/87
Ad	1.15	0.38	30.83	HEp-2	32.0	1.04	04/10/87
Ad	1.4	0.47	20.3	HEp-2	32.0	1.6	04/24/87
Ad	1.35	0.45	33.3	HEp-2	32.0	0.96	05/07/87
Ad	2.05	0.68	14.95	HEp-2	32.0	2.14	05/14/87

VR*= Virus rating calculated according to the method of Sidwell and
Huffman (Appl. Microbiol. 22: 797-801, 1971).

UPDATED 08/10/87:ADB

SHIPMENT NO. 21

AVS NO.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
2503	PT	2.17	0.72	1.46	Vero	3.2	2.2	07/09/87
	YFV	3.6	1.2	0.57	Vero	1.0	1.77	07/16/87
	JE	3.6	1.2	0.19	Vero	1.0	5.14	06/19/87
	SF	4.1	1.37	0.38	Vero	1.0	2.66	07/16/87
	VV	2.85	0.95	1.31	Vero	3.2	2.44	05/14/87
	Ad	0.75	0.25	--	HEp-2	1.0	--	05/14/87
	Ad	0.75	0.25	--	HEp-2	1.0	--	05/28/87
	VSV	4.1	1.37	2.17	L929	100.0	46.1	05/05/87
	VSV	4.75	1.58	1.33	L929	100.0	75.36	06/12/87
**VSV	N/A	N/A	7.37	L929	100.0	13.6	10/28/87	
2504	PT	0.05	0.02	--	Vero	10.32	--	07/09/87
	YFV	0	0	--	Vero	1.0	--	07/16/87
	JE	0	0	--	Vero	10.32	--	06/19/87
	SF	0.05	0.02	--	Vero	1.0	--	07/16/87
	VV	0	0	--	Vero	1.0	--	05/14/87
	Ad	0	0	--	HEp-2	0.1	--	05/28/87
	VSV	0.5	0.17	--	L929	10.32	--	05/05/87
2505	PT	0.69	0.23	--	Vero	100.0	--	07/09/87
	YFV	0	0	--	Vero	32.0	--	07/16/87
	JE	0	0	--	Vero	320.0	--	06/19/87
	SF	0.6	0.2	178.8	Vero	32.0	0.18	07/16/87
	VV	0	0	--	Vero	320.0	--	05/14/87
	Ad	0.3	0.1	--	HEp-2	320.0	--	05/14/87
	VSV	0	0	--	L929	320.0	--	05/05/87
2506	PT	2.64	0.88	3.7	Vero	3.2	0.87	07/09/87
	YFV	2.1	0.7	10.07	Vero	10.0	0.99	07/16/87
	JE	2.05	0.68	12.9	Vero	32.0	2.49	06/19/87
	SF	3.15	1.05	2.9	Vero	3.2	1.1	07/16/87
	VV	1.75	0.58	16.6	Vero	10.0	0.6	05/14/87
	Ad	1.35	0.45	1.0	HEp-2	3.2	0.31	05/14/87
	VSV	0	0	--	L929	100.0	--	05/05/87
2543	PT	0.85	0.28	59.8	Vero	100.0	1.67	07/10/87
	YFV	0.05	0.02	--	Vero	32.0	--	07/16/87
	JE	0	0	--	Vero	32.0	--	06/19/87
	SF	1.5	0.5	10.34	Vero	32.0	3.09	07/16/87
	VV	0	0	--	Vero	32.0	--	05/14/87
	Ad	0.4	0.13	--	HEp-2	32.0	--	05/14/87
	VSV	0.4	0.13	31.01	L929	32.0	--	05/05/87
2545	PT	0.8	0.27	3.13	Vero	3.2	1.02	06/24/87
	YFV	0.1	0.03	--	Vero	1.0	--	06/24/87
	JE	0	0	--	Vero	10.0	--	06/24/87
	SF	0.85	0.28	1.53	Vero	3.2	2.09	06/24/87
2546	PT	0.3	0.1	--	Vero	1.0	--	06/24/87
	YFV	0.45	0.15	--	Vero	3.2	--	06/24/87
	JE	0	0	--	Vero	3.2	--	06/24/87
	SF	0	0	--	Vero	10.32	--	06/24/87

2547	PT JE	0.72 0	0.24 0	13.5 --	Vero Vero	1.0 1.0	0.07 --	06/24/87 06/24/87
2548	PT YFV JE SF	0 0 0 0	0 0 0 0	-- -- -- --	Vero Vero Vero Vero	1.0 1.0 3.2 1.0	-- -- -- --	06/24/87 06/24/87 06/24/87 06/24/87
2549	PT YFV JE SF	0 0 0 0	0 0 0 0	-- -- -- --	Vero Vero Vero Vero	3.2 3.2 10.0 1.0	-- -- -- --	06/24/87 06/24/87 06/24/87 06/24/87
2550	PT YFV JE SF	(TOXIC) (TOXIC) 0 (TOXIC)	 0 	-- -- -- --	Vero Vero Vero Vero	(0.32) (0.32) 10.32 (0.32)	-- -- -- --	06/24/87 06/24/87 06/24/87 06/24/87
2551	PT JE	0.075 0	0.025 0	-- --	Vero Vero	1.0 10.32	-- --	06/24/87 06/24/87
2552	PT YFV JE	0 0.35 0	0 0.12 0	-- -- --	Vero Vero Vero	10.32 10.32 10.32	-- -- --	06/24/87 06/24/87 06/24/87
2553	PT YFV JE	(TOXIC) 0 0	 0 0	-- -- --	Vero Vero Vero	(0.32) 10.32 10.32	-- -- --	06/24/87 06/24/87 06/24/87
2554	PT YFV JE SF	0.2 0.25 0 0	0.07 0.08 0 0	-- -- -- --	Vero Vero Vero Vero	3.2 10.0 10.0 1.0	-- -- -- --	06/24/87 06/25/87 06/25/87 06/25/87
2555	PT YFV JE	0 0 0	0 0 0	-- -- --	Vero Vero Vero	3.2 3.2 10.32	-- -- --	06/25/87 06/25/87 06/25/87
2556	PT YFV JE SF	0 0 0 0	0 0 0 0	-- -- -- --	Vero Vero Vero Vero	10.32 10.32 10.32 10.32	-- -- -- --	06/25/87 06/25/87 06/25/87 06/25/87
2557	PT YFV JE SF	0 0.15 0 0	0 0.05 0 0	-- -- -- --	Vero Vero Vero Vero	10.32 10.32 3.2 10.32	-- -- -- --	06/25/87 06/25/87 06/25/87 06/25/87
2558	PT YFV JE	0 0 0	0 0 0	-- -- --	Vero Vero Vero	10.32 10.32 10.32	-- -- --	06/25/87 06/25/87 06/25/87
2559	PT YFV JE	0 0 0	0 0 0	-- -- --	Vero Vero Vero	10.32 10.32 10.32	-- -- --	06/25/87 06/25/87 06/25/87
2560	PT YFV JE SF	0.6 0.55 0 0.1	0.2 0.18 0 0.03	5.64 6.37 -- --	Vero Vero Vero Vero	10.32 1.0 10.0 10.32	0.06 0.16 -- --	06/25/87 06/25/87 06/25/87 06/25/87

2561	PT	0	0	--	Vero	10.32	--	06/25/87
	YFV	(TOXIC)		--	Vero	10.32	--	06/25/87
	JE	0	0	--	Vero	10.32	--	06/25/87
	SF	0	0	--	Vero	10.32	--	06/25/87
2562	PT	0	0	--	Vero	32.0	--	06/25/87
	YFV	0	0	--	Vero	10.0	--	06/25/87
	JE							
2563	PT	1.25	0.42	0.44	Vero	1.0	2.3	06/25/87
	YFV	2.30	0.77	10.32	Vero	3.2	10.0	06/25/87
	JE	1.0	0.33	0.64	Vero	3.2	5.0	06/25/87
	VV	0.50	0.17	6.34	Vero	3.2	0.51	11/05/87
2565	PT	0.7	0.23	--	Vero	<100.0	--	07/10/87
	YFV	0.2	0.07	--	Vero	100.0	--	07/17/87
	JE	0	0	--	Vero	32.0	--	06/19/87
	SF	2.1	0.7	30.14	Vero	100.0	3.32	07/17/87
	VV	0	0	--	Vero	100.0	--	05/14/87
	Ad	0.3	0.1	--	HEp-2	<320.0	--	05/14/87
	VSV	0	0	--	L929	>320.0	--	05/05/87
2566	PT	0.05	0.02	--	Vero	320.0	--	07/10/87
	YFV	0	0	--	Vero	100.0	--	07/17/87
	JE	0.74	0.25	177.2	Vero	320.0	--	07/10/87
	SF	1.3	0.43	32.0	Vero	32.0	1.0	07/17/87
	VV	>0.1	>0.03	--	Vero	>320.0	--	05/14/87
	Ad	0	0	--	HEp-2	>320.0	--	05/14/87
	VSV	0	0	--	L929	>320.0	--	05/05/87
2567	PT	0.25	0.08	--	Vero	320.0	--	07/10/87
	YFV	0	0	--	Vero	320.0	--	07/17/87
	JE	0	0	--	Vero	>320.0	--	07/10/87
	SF	>0.25	>0.08	--	Vero	>320.0	--	07/17/87
	VV	0	0	--	Vero	>320.0	--	05/14/87
	Ad	0	0	--	HEp-2	>320.0	--	05/14/87
	VSV	0	0	--	L929	320.0	--	05/05/87
2568	PT	0.05	0.02	--	Vero	100.0	--	07/10/87
	YFV	0.85	0.28	--	Vero	32.0	--	07/17/87
	JE	0.35	0.12	229.5	Vero	320.0	1.39	07/10/87
	SF	0	0	--	Vero	32.0	--	07/17/87
	VV	1.85	0.62	37.6	Vero	320.0	8.5	05/14/87
	Ad	0	0	--	HEp-2	320.0	--	05/14/87
	VSV	0.85	0.28	98.4	L929	100.0	--	05/05/87
2569	PT							
	YFV	0	0	--	Vero	10.0	--	07/17/87
	JE	0.3	0.1	263.7	Vero	100.0	0.38	07/10/87
	SF	0.57	0.19	59.69	Vero	100.0	1.68	07/17/87
	VV	0	0	--	Vero	<320.0	--	05/28/87
	Ad	0	0	--	HEp-2	<320.0	--	05/28/87
VSV	0	0	--	L929	100.0	--	05/05/87	
2640	PT	0.75	0.25	--	Vero	100.0	--	06/23/87
	YFV	0.55	0.18	--	Vero	100.0	--	07/10/87
	JE	0.05	0.02	--	Vero	320.0	--	07/13/87
	SF	0	0	--	Vero	320.0	--	06/23/87
	VV	0	0	--	Vero	>320.0	--	05/28/87

	Ad	0	0	--	HEp-2	>320.0	--	05/28/87
	VSV	0	0	--	L929	>320.0	--	05/05/87
2641	PT	0.5	0.17	--	Vera	320.0	--	06/23/87
	YFV	0	0	--	Vera	>320.0	--	07/10/87
	JE	0	0	--	Vera	>320.0	--	07/13/87
	SF	0	0	--	Vera	320.0	--	06/23/87
	VV	0	0	--	Vera	>320.0	--	05/14/87
	Ad	0	0	--	HEp-2	>320.0	--	05/14/87
	VSV	0	0	--	L929	>320.0	--	05/05/87
2642	PT	>0.1	>0.03	--	Vera	>320.0	--	06/23/87
	YFV	0	0	--	Vera	>320.0	--	07/10/87
	JE	0	0	--	Vera	>320.0	--	07/13/87
	SF	0	0	--	Vera	>320.0	--	06/23/87
	VV	0	0	--	Vera	>320.0	--	05/14/87
	Ad	0	0	--	HEp-2	>320.0	--	05/14/87
	VSV	0	0	--	L929	>320.0	--	05/05/87
2643	PT	>0.39	>0.13	--	Vera	>320.0	--	06/23/87
	YFV	0	0	--	Vera	>320.0	--	07/10/87
	JE	0	0	--	Vera	>320.0	--	07/13/87
	SF	0	0	--	Vera	>320.0	--	06/23/87
	VV	0	0	--	Vera	>320.0	--	05/14/87
	Ad	0	0	--	HEp-2	320.0	--	05/14/87
	VSV	0	0	--	L929	>320.0	--	05/05/87
2644	PT	>0.14	>0.05	--	Vera	>320.0	--	06/23/87
	YFV	0	0	--	Vera	>320.0	--	07/10/87
	JE	0	0	--	Vera	>320.0	--	07/13/87
	SF	0	0	--	Vera	>320.0	--	06/23/87
	VV	>0.3	>0.1	--	Vera	>320.0	--	05/21/87
	Ad	>0.1	>0.03	--	HEp-2	>320.0	--	05/21/87
	VSV	0	0	--	L929	>320.0	--	05/05/87
2645	PT	>0.5	>0.17	--	Vera	>320.0	--	08/07/87
	YFV	0	0	--	Vera	100.0	--	07/20/87
	JE	0	0	--	Vera	>320.0	--	07/14/87
	SF	0	0	--	Vera	320.0	--	07/20/87
	VV	0	0	--	Vera	>320.0	--	05/21/87
	Ad	0	0	--	HEp-2	>320.0	--	05/21/87
	VSV	0	0	--	L929	>320.0	--	05/05/87
2646	PT	>0.4	>0.13	--	Vera	>320.0	--	08/07/87
	YFV	0	0	--	Vera	32.0	--	07/20/87
	JE	0	0	--	Vera	>320.0	--	07/14/87
	SF	0	0	--	Vera	>320.0	--	07/20/87
	VV	0	0	--	Vera	>320.0	--	05/21/87
	Ad	>0.4	>0.13	--	HEp-2	>320.0	--	05/21/87
	VSV	0	0	--	L929	>320.0	--	05/05/87
2647	PT	0.4	0.13	--	Vera	320.0	--	08/07/87
	YFV	0	0	--	Vera	>320.0	--	07/20/87
	JE	0	0	--	Vera	>320.0	--	07/14/87
	SF	>0.1	>0.03	--	Vera	>320.0	--	07/20/87
	VV	0	0	--	Vera	>320.0	--	05/21/87
	Ad	0	0	--	HEp-2	>320.0	--	05/21/87
	VSV	0	0	--	L929	>320.0	--	05/05/87
2648	PT	>0.5	>0.17	--	Vera	>320.0	--	08/07/87

	YFV	0	0	--	Vero	>320.0	--	07/20/87
	JE	0	0	--	Vero	>320.0	--	07/14/87
	SF	0.02	0.01	--	Vero	10.0	--	07/20/87
	VV	>0.1	>0.03	--	Vero	>320.0	--	05/21/87
	Ad	>0.2	>0.07	--	HEp-2	>320.0	--	05/21/87
	VSV	0	0	--	L929	>320.0	--	05/05/87
2649	PT	0.2	0.07	--	Vero	10.0	--	08/07/87
	YFV	0	0	--	Vero	10.0	--	07/20/87
	JE	0	0	--	Vero	<320.0	--	07/14/87
	SF	0.17	0.06	--	Vero	3.2	--	07/20/87
	VV	0.05	0.02	--	Vero	320.0	--	05/28/87
	Ad	>0.3	>0.1	--	HEp-2	>320.0	--	05/28/87
	VSV	0	0	--	L929	320.0	--	05/05/87
2650	PT	0.65	0.22	--	Vero	320.0	--	08/11/87
	YFV	0	0	--	Vero	100.0	--	07/21/87
	JE	0.02	0.007	--	Vero	100.0	--	07/15/87
	SF	0	0	--	Vero	>320.0	--	07/21/87
	VV	0	0	--	Vero	>320.0	--	05/28/87
	Ad	0	0	--	HEp-2	>320.0	--	05/28/87
	VSV	0	0	--	L929	320.0	--	05/05/87
2651	PT	0.4	0.13	--	Vero	100.0	--	08/11/87
	YFV	0.1	0.03	--	Vero	10.0	--	07/21/87
	JE	0	0	--	Vero	>320.0	--	07/15/87
	SF	0.15	0.05	--	Vero	10.0	--	07/21/87
	VV	0	0	--	Vero	>320.0	--	05/28/87
	Ad	0	0	--	HEp-2	>320.0	--	05/28/87
	VSV	0	0	--	L929	320.0	--	05/05/87
2652	PT	>0.25	>0.08	--	Vero	>320.0	--	08/11/87
	YFV	0	0	--	Vero	100.0	--	07/21/87
	JE	1.45	0.48	68.65	Vero	320.0	4.66	07/15/87
	SF	0	0	--	Vero	>320.0	--	07/21/87
	VV	0	0	--	Vero	>320.0	--	05/21/87
	Ad	>0.1	>0.03	--	HEp-2	>320.0	--	05/21/87
	VSV	0	0	--	L929	>320.0	--	05/05/87
2653	PT	>0.74	>0.25	--	Vero	>320.0	--	08/11/87
	YFV	0	0	--	Vero	>320.0	--	07/21/87
	JE	>0.2	>0.07	--	Vero	>320.0	--	07/15/87
	SF	0	0	--	Vero	>320.0	--	07/21/87
	VV	>0.1	>0.03	--	Vero	>320.0	--	05/21/87
	Ad	0	0	--	HEp-2	>320.0	--	05/21/87
	VSV	0	0	--	L929	>320.0	--	05/05/87
2654	PT	>0.44	>0.15	--	Vero	>320.0	--	08/11/87
	YFV	0	0	--	Vero	320.0	--	07/21/87
	JE	0	0	--	Vero	>320.0	--	07/15/87
	SF	0	0	--	Vero	>320.0	--	07/21/87
	VV	0	0	--	Vero	>320.0	--	05/21/87
	Ad	>0.2	>0.07	--	HEp-2	>320.0	--	05/21/87
	VSV	0	0	--	L929	320.0	--	05/05/87
2655	PT	0	0	--	Vero	320.0	--	08/12/87
	YFV	0.2	0.07	--	Vero	320.0	--	07/22/87
	JE	>0.4	>0.13	--	Vero	>320.0	--	07/16/87
	SF	0.2	0.07	--	Vero	100.0	--	07/22/87
	VV	>0.3	>0.1	--	Vero	>320.0	--	05/21/87

	Ad	>0.2	>0.07	--	HEp-2	>320.0	--	05/21/87
	VSV	0	0	--	L929	>320.0	--	05/05/87
2656	PT	0	0	--	Vera	>320.0	--	08/12/87
	YFV	0.2	0.07	--	Vera	100.0	--	07/22/87
	JE	1.1	0.37	118.1	Vera	320.0	2.71	07/16/87
	SF	0.15	0.05	--	Vera	100.0	--	07/22/87
	VV	0	0	--	Vera	>320.0	--	05/21/87
	Ad	0	0	--	HEp-2	>320.0	--	05/21/87
	VSV	0	0	--	L929	>320.0	--	05/05/87
2657	PT	0.35	0.12	--	Vera	320.0	--	08/12/87
	YFV	0.05	0.02	--	Vera	320.0	--	07/22/87
	JE	0	0	--	Vera	>320.0	--	07/16/87
	SF	0.2	0.07	--	Vera	320.0	--	07/22/87
	VV	0	0	--	Vera	>320.0	--	05/21/87
	Ad	>0.3	>0.1	--	HEp-2	>320.0	--	05/21/87
	VSV	0	0	--	L929	>320.0	--	05/05/87
2658	PT	0	0	--	Vera	320.0	--	08/12/87
	YFV	0.15	0.05	--	Vera	100.0	--	07/22/87
	JE	0	0	--	Vera	>320.0	--	07/16/87
	SF	0.1	0.03	--	Vera	32.0	--	07/22/87
	VV	0	0	--	Vera	>320.0	--	05/28/87
	Ad	0	0	--	HEp-2	>320.0	--	05/28/87
	VSV	0	0	--	L929	>320.0	--	05/08/87
2659	PT	0.1	0.03	--	Vera	320.0	--	08/12/87
	YFV	0.25	0.08	--	Vera	10.0	--	07/22/87
	JE	0	0	--	Vera	>320.0	--	07/16/87
	SF	0	0	--	Vera	100.0	--	07/22/87
	VV	0	0	--	Vera	>320.0	--	05/21/87
	Ad	0	0	--	HEp-2	>320.0	--	05/21/87
	VSV	0	0	--	L929	>320.0	--	05/08/87
2660	PT	0	0	--	Vera	>320.0	--	08/17/87
	YFV	0.45	0.15	--	Vera	32.0	--	07/23/87
	JE	0	0	--	Vera	>320.0	--	07/17/87
	SF	1.0	0.33	88.13	Vera	32.0	0.36	07/23/87
	VV	0	0	--	Vera	>320.0	--	05/21/87
	Ad	0	0	--	HEp-2	>320.0	--	05/21/87
	VSV	0	0	--	L929	>320.0	--	05/08/87
2661	PT	>0.1	>0.03	--	Vera	>320.0	--	08/17/87
	YFV	0.2	0.07	--	Vera	320.0	--	07/23/87
	JE	0	0	--	Vera	>320.0	--	07/17/87
	SF	0	0	--	Vera	320.0	--	07/23/87
	VV	>0.4	>0.13	--	Vera	>320.0	--	05/21/87
	Ad	>0.2	>0.07	--	HEp-2	>320.0	--	05/21/87
	VSV	0	0	--	L929	>320.0	--	05/08/87
2662	PT	0	0	--	Vera	>320.0	--	08/17/87
	YFV	0.25	0.08	--	Vera	320.0	--	07/23/87
	JE	0	0	--	Vera	>320.0	--	07/17/87
	SF	0	0	--	Vera	>320.0	--	07/23/87
	VV	0	0	--	Vera	>320.0	--	05/21/87
	Ad	0	0	--	HEp-2	>320.0	--	05/21/87
	VSV	0	0	--	L929	>320.0	--	05/08/87
2663	PT	0	0	--	Vera	100.0	--	08/17/87

	YFV	0.22	0.07	--	Vera	32.0	--	07/23/87
	JE	0	0	--	Vera	>320.0	--	07/17/87
	SF	0	0	--	Vera	320.0	--	07/23/87
	VV	0	0	--	Vera	>320.0	--	05/28/87
	Ad	0	0	--	HEp-2	>320.0	--	05/28/87
	VSV	0	0	--	L929	32.0	--	05/08/87
2664	PT	0	0	--	Vera	>320.0	--	08/17/87
	YFV	0.1	0.03	--	Vera	100.0	--	07/23/87
	JE	0	0	--	Vera	>320.0	--	07/17/87
	SF	0	0	--	Vera	100.0	--	07/23/87
	VV	>0.2	>0.07	--	Vera	>320.0	--	05/21/87
	Ad	0	0	--	HEp-2	>320.0	--	05/21/87
	VSV	0	0	--	L929	>320.0	--	05/08/87
2665	PT	0	0	--	Vera	>320.0	--	08/18/87
	JE	0	0	--	Vera	>320.0	--	07/20/87
	VV	0	0	--	Vera	>320.0	--	05/21/87
	Ad	0	0	--	HEp-2	>320.0	--	05/21/87
	VSV	0	0	--	L929	320.0	--	05/08/87
2666	PT	0	0	--	Vera	>320.0	--	08/18/87
	JE	0	0	--	Vera	>320.0	--	07/20/87
	VV	0	0	--	Vera	>320.0	--	05/21/87
	Ad	0	0	--	HEp-2	>320.0	--	05/21/87
	VSV	0	0	--	L929	>320.0	--	05/08/87
2667	PT	0	0	--	Vera	>320.0	--	08/18/87
	JE	0	0	--	Vera	>320.0	--	07/20/87
	VV	>0.1	>0.03	--	Vera	>320.0	--	05/28/87
	Ad	0	0	--	HEp-2	>320.0	--	05/28/87
	VSV	0	0	--	L929	>320.0	--	05/08/87
2668	PT	0	0	--	Vera	320.0	--	08/18/87
	JE	>0.2	>0.07	--	Vera	>320.0	--	07/20/87
	VV	0	0	--	Vera	>320.0	--	05/28/87
	Ad	0	0	--	HEp-2	>320.0	--	05/28/87
	VSV	0	0	--	L929	>320.0	--	05/08/87
2669	PT	0	0	--	Vera	>320.0	--	08/18/87
	JE	0	0	--	Vera	>320.0	--	07/20/87
	VV	0	0	--	Vera	>320.0	--	05/28/87
	Ad	0	0	--	HEp-2	>320.0	--	05/28/87
	VSV	0	0	--	L929	>320.0	--	05/08/87
2670	PT	0	0	--	Vera	100.0	--	08/19/87
	JE	0.05	0.02	--	Vera	32.0	--	07/20/87
	VV	0	0	--	Vera	>320.0	--	05/28/87
	Ad	0	0	--	HEp-2	>320.0	--	05/28/87
	VSV	0	0	--	L929	>320.0	--	05/08/87
2671	PT	0	0	--	Vera	100.0	--	08/19/87
	JE	0	0	--	Vera	320.0	--	07/20/87
	VV	0	0	--	Vera	>320.0	--	05/28/87
	Ad	0	0	--	HEp-2	>320.0	--	05/28/87
	VSV	0	0	--	L929	>320.0	--	05/08/87
2672	PT	0	0	--	Vera	>320.0	--	08/19/87
	JE	1.0	0.33	100.1	Vera	320.0	3.2	07/20/87
	VV	0	0	--	Vera	>320.0	--	05/28/87

	Ad	0	0	--	HEp-2	>320.0	--	05/28/87
	VSV	0	0	--	L929	>320.0	--	05/08/87
2673	PT	0	0	--	Vero	>320.0	--	08/19/87
	JE	0.3	0.1	263.7	Vero	320.0	1.21	07/20/87
	VV	0	0	--	Vero	>320.0	--	05/28/87
	Ad	0	0	--	HEp-2	>320.0	--	05/28/87
	VSV	0	0	--	L929	320.0	--	05/08/87
2674	PT	0	0	--	Vero	320.0	-	08/19/87
	JE	0.5	0.17	200.7	Vero	320.0	1.59	07/20/87
	VV	0	0	--	Vero	>320.0	--	05/28/87
	Ad	0	0	--	HEp-2	>320.0	--	05/28/87
	VSV	0	0	--	L929	320.0	--	05/08/87
2675	PT	0	0	--	Vero	>320.0	--	08/20/87
	JE	>0.4	>0.13	--	Vero	>320.0	--	07/22/87
	VV	0	0	--	Vero	>320.0	--	05/28/87
	Ad	0	0	--	HEp-2	>320.0	--	05/28/87
	VSV	0	0	--	L929	320.0	--	05/08/87
2676	PT	0	0	--	Vero	>320.0	--	08/20/87
	JE	>0.05	>0.02	--	Vero	>320.0	--	07/22/87
	VV	0	0	--	Vero	>320.0	--	05/28/87
	Ad	0	0	--	HEp-2	>320.0	--	05/28/87
	VSV	0	0	--	L929	>320.0	--	05/08/87
2677	PT	0	0	--	Vero	>320.0	--	08/20/87
	JE	0	0	--	Vero	>320.0	--	07/22/87
	VV	0	0	--	Vero	>320.0	--	06/04/87
	Ad	0	0	--	HEp-2	>320.0	--	06/04/87
	VSV	0	0	--	L929	320.0	--	05/08/87
2678	PT	0	0	--	Vero	>320.0	--	08/20/87
	JE	1.35	0.45	84.59	Vero	320.0	3.78	07/22/87
	VV	0	0	--	Vero	>320.0	--	06/04/87
	Ad	0	0	--	HEp-2	>320.0	--	06/04/87
	VSV	0	0	--	L929	>320.0	--	05/08/87
2679	PT	0	0	--	Vero	>320.0	--	08/20/87
	JE	0	0	--	Vero	>320.0	--	07/22/87
	VV	0	0	--	Vero	>320.0	--	06/04/87
	Ad	0	0	--	HEp-2	>320.0	--	06/04/87
	VSV	0	0	--	L929	320.0	--	05/08/87
2680	PT	0	0	--	Vero	>320.0	--	07/23/87
	JE	1.7	0.57	28.95	Vero	100.0	3.45	07/23/87
	VV	0	0	--	Vero	>320.0	--	06/04/87
	Ad	0	0	--	HEp-2	>320.0	--	06/04/87
	VSV	0	0	--	L929	10.0	--	05/08/87
2681	PT	0	0	--	Vero	320.0	--	07/23/87
	JE	0.38	0.13	225.6	Vero	320.0	1.42	07/23/87
	VV	0	0	--	Vero	>320.0	--	06/04/87
	Ad	0	0	--	HEp-2	>320.0	--	06/04/87
	VSV	0	0	--	L929	>320.0	--	05/08/87
2682	PT	0	0	--	Vero	320.0	--	07/23/87
	JE	>0.7	>0.23	229.5	Vero	>320.0	>1.4	07/23/87
	VV	0	0	--	Vero	320.0	--	06/04/87

	Ad	0.15	0.05	--	HEp-2	320.0	--	06/04/87
	VSV	0	0	--	L929	>320.0	--	05/08/87
2683	PT	0	0	--	Vero	>320.0	--	07/23/87
	JE	0	0	--	Vero	>320.0	--	07/23/87
	VV	0	0	--	Vero	>320.0	--	06/04/87
	Ad	0	0	--	HEp-2	>320.0	--	06/04/87
	VSV	0	0	--	L929	>320.0	--	05/08/87
2684	PT	0	0	--	Vero	>320.0	--	07/23/87
	JE	>0.1	>0.03	--	Vero	>320.0	--	07/23/87
	VV	0	0	--	Vero	>320.0	--	06/04/87
	Ad	0	0	--	Vero	>320.0	--	06/04/87
	VSV	0	0	--	L929	>320.0	--	05/08/87
2707	PT	0.43	0.14	--	Vero	100.0	--	07/24/87
	JE	0	0	--	Vero	320.0	--	07/24/87
	VV	0	0	--	Vero	>320.0	--	05/28/87
	Ad	0	0	--	HEp-2	>320.0	--	05/28/87
	VSV	0	0	--	L929	>320.0	--	05/08/87
Ara-A	PT							
	VV	3.0	1.0	1.79	Vero	10.0	5.6	05/14/87
	VV	4.1	1.37	1.06	Vero	26.8	25.2	05/21/87
	VV	3.85	1.28	1.09	Vero	32.0	29.5	05/28/87
	VV	3.0	1.0	1.0	Vero	10.0	10.0	06/04/87
	VV	2.90	0.97	3.02	Vero	32.0	10.59	11/05/87
C-3-deaza- Ado	PT							
	VSV	1.9	0.63	8.68	L929	10.0	1.15	05/05/87
	VSV	2.35	0.78	8.9	L929	32.0	3.59	05/08/87
	VSV	3.2	1.07	2.46	L929	10.0	4.07	06/12/87
	** VSV	N/A	N/A	1.58	L929	>3.2	2.03	10/28/87
Ribavirin	PT	2.1	0.7	9.68	Vero	100.0	10.33	06/23/87
	PT	2.4	0.80	9.44	Vero	100.0	10.6	06/24/87
	PT	2.14	0.71	20.2	Vero	100.0	4.95	06/24/87
	PT	2.07	0.69	9.97	Vero	100.0	10.03	07/09/87
	PT	2.90	0.97	9.24	Vero	100.0	10.82	07/10/87
	PT	1.4	0.47	28.16	Vero	100.0	3.55	07/23/87
	PT	2.43	0.81	6.7	Vero	100.0	14.9	07/24/87
	PT	1.89	0.63	16.4	Vero	100.0	6.1	08/07/87
	PT	2.27	0.76	22.24	Vero	100.0	4.5	08/11/87
	PT	2.5	0.83	10.07	Vero	100.0	9.93	08/12/87
	PT	1.3	0.43	29.76	Vero	100.0	3.36	08/17/87
	PT	>0.9	>0.3	68.36	Vero	>100.0	>1.46	08/18/87
	PT	1.2	0.4	31.72	Vero	100.0	3.15	08/19/87
	PT	1.2	0.4	31.72	Vero	100.0	3.15	08/20/87
	SF	>2.9	>0.97	11.81	Vero	>100.0	>8.47	06/23/87
	SF	1.9	0.63	5.37	Vero	10.0	1.86	06/24/87
	SF	1.9	0.63	16.97	Vero	100.0	5.89	06/25/87
	SF	3.4	1.13	2.33	Vero	32.0	13.75	07/16/87
	SF	3.2	1.07	5.91	Vero	100.0	16.93	07/17/87
	SF	2.69	0.9	3.76	Vero	32.0	8.51	07/20/87
	SF	3.37	1.12	4.4	Vero	100.0	22.67	07/21/87
	SF	3.2	1.07	15.92	Vero	320.0	20.10	07/22/87
	SF	2.35	0.78	3.2	Vero	10.0	3.12	07/23/87

	Ad	1.55	0.52	20.7	HEp-2	100.0	4.8	05/14/87
	Ad	2.0	0.67	25.6	HEp-2	100.0	3.9	05/21/87
	Ad	1.35	0.45	31.1	HEp-2	100.0	3.2	05/28/87
	Ad	1.45	0.48	47.7	HEp-2	100.0	2.1	06/04/87
Selenazole	YFV	3.2	1.07	0.54	Vero	1.0	1.86	06/24/87
	YFV	3.7	1.23	0.51	Vero	3.2	6.33	06/25/87
	YFV	2.45	0.82	1.7	Vero	1.0	0.59	07/10/87
	YFV	2.5	0.83	1.7	Vero	3.2	1.89	07/16/87
	YFV	2.55	0.85	5.9	Vero	10.0	1.69	07/17/87
	YFV	2.2	0.73	1.79	Vero	3.2	1.79	07/20/87
	YFV	1.9	0.63	1.7	Vero	3.2	1.89	07/21/87
	YFV	2.45	0.82	1.1	Vero	1.0	0.91	07/22/87
	YFV	2.4	0.8	1.79	Vero	1.0	0.56	07/23/87
	JE	2.3	0.77	2.05	Vero	3.2	1.56	06/18/87
	JE	2.54	0.85	1.19	Vero	3.2	2.68	06/19/87
	JE	1.7	0.57	2.56	Vero	3.2	1.25	06/24/87
	JE	1.95	0.65	2.69	Vero	3.2	1.19	06/25/87
	JE	3.49	1.16	0.49	Vero	3.2	6.56	07/10/87
	JE	2.45	0.82	1.34	Vero	3.2	2.39	07/13/87
	JE	2.05	0.68	3.77	Vero	3.2	0.85	07/14/87
	JE	2.1	0.7	1.92	Vero	3.2	1.66	07/15/87
	JE	2.7	0.9	1.4	Vero	3.2	2.27	07/16/87
	JE	2.15	0.72	2.98	Vero	3.2	1.08	07/17/87
	JE	2.5	0.83	1.79	Vero	3.2	1.79	07/20/87
	JE	2.25	0.75	1.33	Vero	3.2	2.41	07/20/87
	JE	3.0	1.0	0.63	Vero	3.2	5.08	07/22/87
	JE	2.8	0.93	0.84	Vero	3.2	3.82	07/23/87
	JE	2.6	0.87	1.6	Vero	3.2	2.0	07/24/87
	VV	1.85	0.62	9.19	Vero	10.0	1.09	05/14/87
	VV	2.8	0.93	8.0	Vero	32.0	4.0	05/21/87
	VV	2.3	0.77	9.48	Vero	10.0	1.06	05/28/87
	VV	2.2	0.73	7.8	Vero	10.0	1.28	06/04/87
	VV	2.45	0.82	6.41	Vero	10.0	1.56	11/05/87
	Ad	2.05	0.68	15.0	HEp-2	32.0	2.1	05/14/87
	Ad	1.45	0.48	38.35	HEp-2	32.0	0.83	05/21/87
	Ad	1.35	0.45	18.47	HEp-2	32.0	1.7	05/28/87
	Ad	0.95	0.32	56.17	HEp-2	100.0	1.78	06/04/87

VR* - Virus Rating calculated according to the method of Sidwell and Huffman (Appl. Microbiol. 22: 797-801, 1971).

**--PLAQUE REDUCTION ASSAY

UPDATED: 11/16/87:ADE

SHIPMENT NO. 22

AVS NO.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
52	PIC	(IN VIVO ONLY)						
79	PIC	(IN VIVO ONLY)						
111	PIC	(IN VIVO ONLY)						
148	PIC	(IN VIVO ONLY)						
167	PIC	(IN VIVO ONLY)						
272	PIC	(IN VIVO ONLY)						
332	PIC	(IN VIVO ONLY)						
360	PIC	(IN VIVO ONLY)						
1046	PIC	(IN VIVO ONLY)						
1250	PIC	(IN VIVO ONLY)						
1764	PT	0.2	0.07	--	Vero	100.0	--	06/19/87
	JE	0.04	0.01	--	Vero	320.0	--	06/30/87
	SF	0	0	--	Vero	320.0	--	06/19/87
	VV	0.3	0.1	320.0	Vero	320.0	1.0	06/25/87
	Ad	>0.2	>0.07	--	HEP-2	>320.0	--	06/25/87
	VSV	0	0	--	L929	>320.0	--	06/02/87
1777	PT	0	0	--	Vero	0.00010	--	06/19/87
	YFV	0.3	0.1	--	Vero	0.00010	--	07/09/87
	JE	0	0	--	Vero	0.001	--	07/24/87
	SF	0	0	--	Vero	0.00032	--	06/19/87
	VV	0	0	--	Vero	0.0032	--	07/09/87
	Ad	0	0	--	HEP-2	0.0032	--	07/09/87
	VSV	0	0	--	L929	0.1	--	06/09/87
1795	PT	0	0	--	Vero	32.0	--	06/19/87
	YFV	0.6	0.2	56.5	Vero	3.2	0.06	07/09/87
	JE	0	0	--	Vero	32.0	--	06/30/87
	SF	0	0	--	Vero	>320.0	--	06/19/87
	VV	0.15	0.05	--	Vero	100.0	--	06/25/87
	Ad	0.3	0.1	--	HEP-2	<100.0	--	06/25/87
	VSV	0	0	--	L929	32.0	--	06/02/87
1796	PT	0.05	0.02	--	Vero	32.0	--	06/19/87
	YFV	0	0	--	Vero	10.0	--	07/09/87
	JE	0	0	--	Vero	32.0	--	06/30/87
	SF	0	0	--	Vero	>320.0	--	06/19/87
	VV	1.3	0.43	65.2	Vero	100.0	1.53	06/25/87
	Ad	0	0	--	HEP-2	<320.0	--	06/25/87
	VSV	0	0	--	L929	320.0	--	06/02/87
2685	PT	0	0	--	Vero	100.0	--	06/19/87
	YFV	0.15	0.05	--	Vero	100.0	--	07/09/87

	JE	0.1	0.03	--	Vero	32.0	--	06/30/87
	SF	0	0	--	Vero	>320.0	--	06/19/87
	VV	0.5	0.17	317.2	Vero	320.0	1.0	06/25/87
	Ad	0	0	--	HEP-2	320.0	--	06/25/87
	VSV	0	0	--	L929	>320.0	--	06/02/87
2686	PT	>0.3	>0.1	--	Vero	>320.0	--	06/19/87
	YFV	0	0	--	Vero	>320.0	--	07/09/87
	JE	0	0	--	Vero	320.0	--	07/01/87
	SF	0	0	--	Vero	>320.0	--	06/19/87
	VV	0.6	0.2	306.7	Vero	320.0	1.04	06/25/87
	Ad	>0.3	>0.1	--	HEP-2	>320.0	--	06/25/87
	VSV	0	0	--	L929	>320.0	--	06/02/87
2687	PT	>0.1	>0.03	--	Vero	>320.0	--	06/19/87
	YFV	0	0	--	Vero	>320.0	--	07/09/87
	JE	>0.2	>0.07	--	Vero	>320.0	--	07/01/87
	SF	0	0	--	Vero	>320.0	--	06/19/87
	VV	0	0	--	Vero	>320.0	--	06/25/87
	Ad	>0.5	>0.17	--	HEP-2	>320.0	--	06/25/87
	VSV	0	0	--	L929	320.0	--	06/02/87
2688	PT	0.098	0.033	--	Vero	10.0	--	06/29/87
	YFV	0.20	0.07	--	Vero	1.0	--	06/29/87
	JE	0	0	--	Vero	32.0	--	06/29/87
	SF	0	0	--	Vero	3.2	--	06/29/87
	VV	1.35	0.45	3.05	Vero	10.0	3.28	06/25/87
	Ad	0	0	--	HEP-2	1.0	--	06/25/87
	VSV	0	0	--	L929	10.0	--	06/23/87
2689	PT	0	0	--	Vero	32.0	--	06/29/87
	YFV	0.20	0.07	--	Vero	10.0	--	06/29/87
	JE	0	0	--	Vero	100.0	--	06/29/87
	SF	0	0	--	Vero	32.0	--	06/29/87
	VV	1.5	0.5	57.9	Vero	<320.0	5.53	06/25/87
	Ad	0.15	0.05	--	HEP-2	10.0	--	06/25/87
	VSV	0	0	--	L929	100.0	--	06/23/87
2690	PT	0	0	--	Vero	10.0	--	06/29/87
	YFV	0	0	--	Vero	10.0	--	06/29/87
	JE	0	0	--	Vero	32.0	--	06/29/87
	SF	0	0	--	Vero	10.0	--	06/29/87
	VV	1.3	0.4	60.6	Vero	100.0	1.65	06/25/87
	Ad	0	0	--	HEP-2	<32.0	--	06/25/87
	VSV	0	0	--	L929	10.0	--	06/23/87
2691	PT	0.05	0.02	--	Vero	32.0	--	06/29/87
	YFV	0.37	0.12	--	Vero	3.2	--	06/29/87
	JE	1.65	0.55	9.996	Vero	32.0	3.2	06/29/87
	SF	0.1	0.03	--	Vero	10.0	--	06/29/87
	VV	0.4	0.13	99.88	Vero	100.0	1.0	06/25/87
	Ad	0.05	0.02	--	HEP-2	3.2	--	06/25/87
	VSV	0	0	--	L929	10.0	--	06/23/87
2692	PT	0.2	0.07	--	Vero	100.0	--	06/29/87
	YFV	0.12	0.04	--	Vero	32.0	--	06/29/87
	JE	0.15	0.05	--	Vero	100.0	--	06/29/87
	SF	0	0	--	Vero	100.0	--	06/29/87
	VV	0	0	--	Vero	32.0	--	06/25/87
	Ad	0	0	--	HEP-2	<10.0	--	06/25/87

	VSV	0	0	--	L929	32.0	--	06/23/87
2693	PT	0	0	--	Vero	100.0	--	06/29/87
	YFV	0.20	0.07	--	Vero	32.0	--	06/29/87
	JE	0.05	0.02	--	Vero	100.0	--	06/29/87
	SF	0	0	--	Vero	100.0	--	06/29/87
	VV	0	0	--	Vero	32.0	--	06/25/87
	Ad	0	0	--	HEP-2	<10.0	--	06/25/87
	VSV	0	0	--	L929	32.0	--	06/23/87
2694	PT	0	0	--	Vero	320.0	--	06/19/87
	JE	0	0	--	Vero	<1.0	--	07/01/87
	SF	0	0	--	Vero	>320.0	--	06/19/87
	VV	0	0	--	Vero	>320.0	--	06/25/87
	Ad	>0.3	>0.1	--	HEP-2	>320.0	--	06/25/87
	VSV	0	0	--	L929	320.0	--	06/02/87
2695	PT	0.05	0.02	--	Vero	<3.2	--	06/30/87
	YFV	0	0	--	Vero	32.0	--	07/14/87
	JE	0	0	--	Vero	10.0	--	07/01/87
	SF	0	0	--	Vero	>320.0	--	07/14/87
	VV	0	0	--	Vero	>320.0	--	06/25/87
	Ad	>0.3	>0.1	--	HEP-2	>320.0	--	06/25/87
	VSV	0	0	--	L929	>320.0	--	06/02/87
2696	PT	0	0	--	Vero	<1.0	--	06/30/87
	YFV	0	0	--	Vero	<1.0	--	07/14/87
	JE	0	0	--	Vero	<1.0	--	07/01/87
	SF	0	0	--	Vero	1.0	--	07/14/87
	VV	0.55	0.18	7.21	Vero	3.2	0.44	06/25/87
	Ad	0.6	0.2	3.2	HEP-2	3.2	1.0	06/25/87
	VSV	0	0	--	L929	<10.0	--	06/02/87
2697	PT	0.85	0.28	--	Vero	<100.0	--	06/30/87
	YFV	0.1	0.03	--	Vero	10.0	--	07/14/87
	JE	0	0	--	Vero	10.0	--	07/02/87
	SF	0.1	0.03	--	Vero	32.0	--	07/14/87
	VV	0.1	0.03	--	Vero	<100.0	--	06/25/87
	Ad	0	0	--	HEP-2	<100.0	--	06/25/87
	VSV	0.25	0.08	--	L929	320.0	--	06/02/87
2698	PT	0.3	0.1	--	Vero	100.0	--	06/30/87
	YFV	0.22	0.07	--	Vero	32.0	--	07/14/87
	JE	0	0	--	Vero	32.0	--	07/02/87
	SF	0.55	0.18	--	Vero	10.0	--	07/14/87
	VV	0	0	--	Vero	<100.0	--	06/25/87
	Ad	0	0	--	HEP-2	100.0	--	06/25/87
	VSV	0	0	--	L929	32.0	--	06/02/87
2699	PT	0.15	0.05	--	Vero	320.0	--	06/30/87
	YFV	0	0	--	Vero	320.0	--	07/14/87
	JE	>0.1	>0.03	--	Vero	>320.0	--	07/02/87
	SF	0	0	--	Vero	100.0	--	07/14/87
	VV	0.75	0.25	--	Vero	100.0	--	06/25/87
	Ad	0	0	--	HEP-2	100.0	--	06/25/87
	VSV	0	0	--	L929	>320.0	--	06/02/87
2700	PT	0.79	0.26	--	Vero	3.2	--	06/30/87
	YFV	2.65	0.88	3.77	Vero	3.2	0.85	07/15/87
	JE	2.99	1.0	3.39	Vero	10.0	2.95	07/02/87

	SF	2.1	0.7	7.9	Vero	1.0	0.13	07/15/87
	VV	3.25	1.08	1.06	Vero	3.2	3.03	06/25/87
	VV	3.6	1.2	1.77	Vero	10.0	5.65	08/27/87
	Ad	2.7	0.9	0.32	HEP-2	1.0	3.13	06/25/87
	Ad	3.7	1.23	0.21	HEP-2	3.2	15.2	07/09/87
	Ad	3.6	1.2	0.45	HEP-2	10.0	22.26	09/04/87
	Ad	1.8	0.6	0.45	HEP-2	1.0	2.23	09/24/87
	VSV	0	0	--	L929	10.0	--	06/02/87
2701	PT	0.1	0.03	--	Vero	10.0	--	06/30/87
	YFV	0	0	--	Vero	32.0	--	07/15/87
	JE	0	0	--	Vero	32.0	--	07/02/87
	SF	0.05	0.02	--	Vero	100.0	--	07/15/87
	VV	0	0	--	Vero	100.0	--	06/25/87
	Ad	0	0	--	HEP-2	<320.0	--	06/25/87
	VSV	0	0	--	L929	320.0	--	06/02/87
2702	PT	0.29	0.1	--	Vero	10.0	--	06/30/87
	YFV	0	0	--	Vero	3.2	--	07/15/87
	JE	0	0	--	Vero	320.0	--	07/06/87
	SF	0.35	0.12	319.8	Vero	10.0	0.03	07/15/87
	VV	0	0	--	Vero	320.0	--	06/25/87
	Ad	0	0	--	HEP-2	<100.0	--	06/25/87
	Ad	0.2	0.07	--	HEP-2	32.0	--	10/29/87
	VSV	0	0	--	L929	320.0	--	06/02/87
2703	PT	0.44	0.15	--	Vero	320.0	--	07/01/87
	YFV	0	0	--	Vero	32.0	--	07/15/87
	JE	0	0	--	Vero	>320.0	--	07/06/87
	SF	0.85	0.28	118.1	Vero	100.0	0.85	07/15/87
	VV	0.1	0.03	--	Vero	320.0	--	07/02/87
	Ad	0.8	0.27	100.0	HEP-2	320.0	3.2	07/02/87
	VSV	0	0	--	L929	320.0	--	06/02/87
2705	PT	>0.2	>0.07	--	Vero	>320.0	--	07/01/87
	YFV	0	0	--	Vero	320.0	--	07/15/87
	JE	0	0	--	Vero	>320.0	--	07/06/87
	SF	0	0	--	Vero	320.0	--	07/15/87
	VV	>0.1	>0.03	--	Vero	>320.0	--	07/02/87
	Ad	0	0	--	HEP-2	>320.0	--	07/02/87
	VSV	0	0	--	L929	>320.0	--	06/02/87
2709	PT	>0.3	>0.1	--	Vero	>320.0	--	07/01/87
	YFV	0	0	--	Vero	>320.0	--	07/15/87
	JE	0	0	--	Vero	320.0	--	07/06/87
	SF	0	0	--	Vero	>320.0	--	07/15/87
	VV	>0.2	>0.07	--	Vero	>320.0	--	07/02/87
	Ad	>0.3	>0.1	--	HEP-2	>320.0	--	07/02/87
	VSV	0	0	--	L929	>320.0	--	06/02/87
2710	PT	>0.4	>0.13	--	Vero	>320.0	--	07/01/87
	YFV	0	0	--	Vero	>320.0	--	07/15/87
	JE	0	0	--	Vero	>320.0	--	07/06/87
	SF	0	0	--	Vero	320.0	--	07/15/87
	VV	>0.5	>0.17	--	Vero	>320.0	--	07/02/87
	Ad	>0.7	>0.23	319.8	HEP-2	>320.0	1.0	07/02/87
	VSV	0	0	--	L929	>320.0	--	06/02/87
2711	PT	0	0	--	Vero	>320.0	--	07/01/87
	YFV	0	0	--	Vero	>320.0	--	07/15/87

	JE	>2.2	>0.73	50.45	Vero	>320.0	>6.34	07/07/87
	SF	0	0	--	Vero	>320.0	--	07/13/87
	VV	0	0	--	Vero	>320.0	--	07/02/87
	Ad	>0.5	>0.17	--	HEP-2	>320.0	--	07/02/87
	VSV	0	0	--	L929	320.0	--	06/02/87
2712	PT	2.32	0.77	0.05	Vero	1.0	19.4	08/14/87
	VEE	0	0	--	Vero	0.32	--	11/11/87
	YFV	0	0	--	Vero	>1.0	--	08/14/87
	JE	0	0	--	Vero	>1.0	--	08/14/87
	SF	0	0	--	Vero	>1.0	--	08/14/87
2713	PT	>1.84	>0.61	--	Vero	>1.0	--	08/14/87
	VEE	0	0	--	Vero	1.0	--	11/11/87
	YFV	0	0	--	Vero	>1.0	--	08/14/87
	JE	0	0	--	Vero	>1.0	--	08/14/87
	SF	0	0	--	Vero	>1.0	--	08/14/87
2714	PT	1.3	0.43	0.58	Vero	3.2	--	07/01/87
	YFV	0.65	0.22	5.5	Vero	3.2	0.58	07/06/87
	JE	0	0	--	Vero	>320.0	--	07/07/87
	SF	1.65	0.55	0.49	Vero	1.0	2.04	07/06/87
	VV	1.05	0.35	15.64	Vero	32.0	2.05	07/02/87
	Ad	0.3	0.1	--	HEP-2	<32.0	--	07/02/87
	VSV	0	0	--	L929	32.0	--	06/26/87
2715	PT	1.34	0.65	--	Vero	0.001	--	08/14/87
	VEE	0	0	--	Vero	0.00003	--	11/11/87
	YFV	0	0	--	Vero	0.001	--	08/14/87
	JE	0	0	--	Vero	0.001	--	08/14/87
	SF	0	0	--	Vero	0.001	--	08/14/87
2716	PT	2.0	0.67	2.7	Vero	10.0	3.7	05/27/87
	VEE	>1.75	>0.58	3.0	Vero	10.32	10.1	05/27/87
	YFV	1.15	0.38	7.69	Vero	10.0	1.3	05/27/87
	JE	1.64	0.55	3.17	Vero	10.0	3.16	05/27/87
	VV	1.6	0.53	13.05	Vero	<100.0	7.66	05/28/87
	Ad	1.1	0.37	12.6	HEP2	32.0	2.54	05/28/87
	VSV	0	0	--	L929	32.0	--	06/02/87
2717	PT	0.2	0.07	--	Vero	100.0	--	05/27/87
	VEE	0	0	--	Vero	320.0	--	05/27/87
	YFV	0	0	--	Vero	>320.0	--	05/27/87
	JE	0	0	--	Vero	320.0	--	05/27/87
	VV	>0.1	>0.03	--	Vero	>320.0	--	05/28/87
	Ad	>0.6	>0.2	--	HEP2	>320.0	--	05/28/87
	VSV	0	0	--	L929	320.0	--	06/02/87
2718	PT	0.05	0.02	--	Vero	100.0	--	05/27/87
	VEE	0	0	--	Vero	320.0	--	05/27/87
	YFV	0	0	--	Vero	320.0	--	05/27/87
	JE	0	0	--	Vero	320.0	--	05/27/87
	VV	>0.8	>0.27	37.18	Vero	>320.0	1.01	05/28/87
	Ad	0	0	--	HEP2	<320.0	--	05/28/87
	VSV	0	0	--	L929	100.0	--	06/02/87
2720	PT							
	VV	0	0	--	Vero	>320.0	--	05/28/87
	Ad	>0.3	>0.1	--	HEP2	>320.0	--	05/28/87
	VSV	0	0	--	L929	>320.0	--	06/02/87

2721	PT							
	VV	0	0	--	Verc	>320.0	--	05/28/87
	Ad	>0.3	>0.1	--	HEP2	>320.0	--	05/28/87
	VSV	0	0	--	L929	>320.0	--	06/02/87
2722	PT							
	VV	0.1	0.03	--	Verc	320.0	--	05/28/87
	Ad	0.15	0.05	--	HEP2	320.0	--	05/28/87
	VSV	0	0	--	L929	320.0	--	06/02/87
2723	PT	0	0	--	Verc	>320.0	--	05/27/87
	VEE							
	YFV	0	0	--	Verc	>320.0	--	05/27/87
	JE	0	0	--	Verc	>320.0	--	05/27/87
	VV	0	0	--	Verc	>320.0	--	05/28/87
	Ad	0	0	--	HEP2	>320.0	--	05/28/87
	VSV	0	0	--	L929	>320.0	--	06/02/87
2739	PT	0.58	0.19	--	Verc	32.0	--	07/07/87
	YFV	0	0	--	Verc	100.0	--	07/06/87
	JE	0	0	--	Verc	>320.0	--	07/07/87
	SF	1.15	0.38	64.41	Verc	100.0	1.55	07/06/87
	VV	0	0	--	Verc	100.0	--	07/02/87
	Ad	0	0	--	HEP-2	32.0	--	07/02/87
	VSV	0.25	0.08	--	L929	100.0	--	06/26/87
2740	PT	0.2	0.07	--	Verc	100.0	--	07/07/87
	YFV	0	0	--	Verc	320.0	--	07/06/87
	JE	0	0	--	Verc	>320.0	--	07/07/87
	SF	0	0	--	Verc	100.0	--	07/06/87
	VV	0	0	--	Verc	>320.0	--	07/02/87
	Ad	>0.2	>0.07	--	HEP-2	>320.0	--	07/02/87
	VSV	>0.1	>0.03	--	L929	>320.0	--	06/26/87
2744	PT	>0.74	>0.25	--	Verc	>320.0	--	07/07/87
	YFV	0	0	--	Verc	>100.0	--	07/06/87
	JE	0	0	--	Verc	>320.0	--	07/07/87
	SF	0.2	0.07	--	Verc	>100.0	--	07/06/87
	VV	>0.7	>0.23	--	Verc	>320.0	--	07/02/87
	Ad	>0.4	>0.13	--	HEP-2	>320.0	--	07/02/87
	VSV	>0.1	>0.03	--	L929	>320.0	--	06/26/87
2745	PT	0.77	0.26	--	Verc	320.0	--	07/07/87
	YFV	0	0	--	Verc	>100.0	--	07/06/87
	JE	>0.2	>0.07	--	Verc	>320.0	--	07/08/87
	SF	0	0	--	Verc	>100.0	--	07/06/87
	VV	>0.1	>0.03	--	Verc	>320.0	--	07/02/87
	Ad	0	0	--	HEP-2	>320.0	--	07/02/87
	VSV	>0.4	>0.13	--	L929	>320.0	--	06/26/87
2765	PT	0	0	--	Verc	<100.0	--	05/27/87
	VEE	0	0	--	Verc	100.0	--	05/27/87
	YFV	0	0	--	Verc	32.0	--	05/27/87
	JE	0	0	--	Verc	<320.0	--	05/27/87
	VV	1.65	0.55	47.69	Verc	100.0	2.1	05/28/87
	Ad	0.9	0.3	93.95	HEP2	<320.0	3.4	05/28/87
	VSV	0.25	0.08	--	L929	100.0	--	06/02/87
2770	PT	0	0	--	Verc	3.2	--	07/08/87

	YFV	0.12	0.04	--	Vero	10.0	--	07/06/87
	JE	0	0	--	Vero	3.2	--	07/08/87
	SF	0.05	0.02	--	Vero	10.0	--	07/06/87
	VV	0	0	--	Vero	100.0	--	07/09/87
	Ad	1.15	0.38	32.0	HEP-2	32.0	1.0	07/09/87
	VSV	0	0	--	L929	10.0	--	06/26/87
2771	PT	0.05	0.02	--	Vero	10.0	--	07/08/87
	YFV	0	0	--	Vero	3.2	--	07/06/87
	JE	0	0	--	Vero	10.0	--	07/08/87
	SF	0.15	0.05	--	Vero	3.2	--	07/06/87
	VV	0	0	--	Vero	32.0	--	07/09/87
	Ad	0.3	0.1	--	HEP-2	100.0	--	07/09/87
	VSV	0	0	--	L929	32.0	--	06/26/87
2772	PT	0	0	--	Vero	10.0	--	07/08/87
	YFV	0.25	0.08	--	Vero	3.2	--	07/07/87
	JE	0	0	--	Vero	10.0	--	07/08/87
	SF	0	0	--	Vero	10.0	--	07/07/87
	VV	0	0	--	Vero	>320.0	--	07/09/87
	Ad	>0.5	>0.17	--	HEP-2	>320.0	--	07/09/87
	VSV	0.1	0.03	--	L929	320.0	--	06/26/87
2773	PT	0	0	--	Vero	10.0	--	07/08/87
	YFV	0.7	0.23	--	Vero	10.0	--	07/07/87
	JE	0	0	--	Vero	32.0	--	07/08/87
	SF	0	0	--	Vero	10.0	--	07/07/87
	VV	0.2	0.07	--	Vero	320.0	--	07/09/87
	Ad	>0.5	>0.17	--	HEP-2	>320.0	--	07/09/87
	VSV	>0.6	>0.2	320.0	L929	>320.0	--	06/26/87
2774	PT	0	0	--	Vero	320.0	--	07/08/87
	JE	0	0	--	Vero	100.0	--	07/09/87
	SF	1.35	0.45	83.86	Vero	32.0	0.38	07/07/87
	VV	0	0	--	Vero	320.0	--	07/09/87
	Ad	0	0	--	HEP-2	<100.0	--	07/09/87
	VSV	0	0	--	L929	320.0	--	06/26/87
2775	PT	0.17	0.06	--	Vero	100.0	--	07/09/87
	YFV	0.35	0.12	--	Vero	32.0	--	07/07/87
	JE	0	0	--	Vero	320.0	--	07/09/87
	SF	0	0	--	Vero	100.0	--	07/07/87
	VV	0.1	0.03	--	Vero	320.0	--	07/09/87
	Ad	0	0	--	HEP-2	>320.0	--	07/09/87
	VSV	0	0	--	L929	>320.0	--	06/26/87
Ara-A	VV	3.85	1.28	1.09	Vero	32.0	29.46	05/28/87
	VV	2.75	0.92	1.14	Vero	10.0	8.8	06/25/87
	VV	3.25	1.08	0.97	Vero	8.5	8.72	07/02/87
	VV	2.7	0.9	0.67	Vero	3.2	4.81	07/09/87
	VV	3.2	1.07	1.35	Vero	10.0	7.38	08/27/87
C-3-Deaza-								
Ado	VSV	3.05	1.02	2.79	L929	10.0	3.58	06/02/87
	VSV	3.2	1.07	2.62	L929	10.0	3.82	06/04/87
	VSV	2.4	0.8	2.01	L929	3.2	1.59	06/26/87
	VSV	2.8	0.93	2.52	L929	3.2	1.27	06/23/87
Ribavirin	PT	>2.64	>0.88	24.4	Vero	>100.0	4.1	05/27/87
	PT	2.3	0.77	10.98	Vero	100.0	9.1	06/19/87

PT	1.79	0.60	11.04	Vero	32.0	2.9	06/29/87
PT	1.75	0.58	15.00	Vero	32.0	2.1	06/20/87
PT	2.36	0.79	13.04	Vero	100.0	7.7	07/01/87
PT	2.23	0.74	16.94	Vero	100.0	5.9	07/07/87
PT	2.02	0.67	20.26	Vero	100.0	4.9	07/08/87
PT	2.07	0.69	9.97	Vero	100.0	10.03	07/09/87
PT	2.27	0.76	15.51	Vero	100.0	6.45	08/14/87
VEE	1.3	0.43	22.63	Vero	32.0	1.4	05/27/87
VEE	0.65	0.22	49.86	Vero	32.0	0.64	11/11/87
SF	3.9	1.3	2.62	Vero	100.0	38.2	06/19/87
SF	3.3	1.1	4.68	Vero	100.0	21.37	06/29/87
SF	2.3	0.77	4.4	Vero	32.0	7.22	07/06/87
SF	3.19	1.06	2.9	Vero	32.0	10.99	07/07/87
SF	3.9	1.3	4.89	Vero	100.0	20.44	07/14/87
SF	2.9	0.97	6.3	Vero	100.0	15.8	07/15/87
SF	3.0	1.0	5.65	Vero	100.0	17.7	08/14/87
Ad	1.35	0.45	31.1	HEP2	100.0	3.2	05/28/87
Ad	2.0	0.67	15.91	HEP-2	100.0	6.29	06/25/87
Ad	2.0	0.67	15.91	HEP-2	100.0	6.29	07/02/87
Ad	2.25	0.75	15.6	HEP-2	100.0	6.41	07/09/87
Ad	1.4	0.47	50.5	HEP-2	100.0	1.98	09/04/87
Ad	1.3	0.4	63.4	HEP-2	100.0	1.6	09/24/87
Ad	1.2	0.4	63.3	HEP-2	100.0	1.6	09/24/87
Ad	1.3	0.4	56.6	HEP-2	100.0	1.8	09/24/87
Ad	1.2	0.4	63.3	HEP-2	100.0	1.6	09/24/87
Ad	1.4	0.5	50.9	HEP-2	100.0	2.0	09/24/87
Ad	1.4	0.5	50.6	HEP-2	100.0	2.0	10/29/87
Ad	1.6	0.5	40.1	HEP-2	100.0	2.5	10/29/87
Ad	1.5	0.5	45.7	HEP-2	100.0	2.2	10/29/87
Ad	1.8	0.6	42.9	HEP-2	100.0	2.3	10/29/87
Ad	1.5	0.5	50.5	HEP-2	100.0	2.0	10/29/87
Ad	1.6	0.5	46.7	HEP-2	100.0	2.1	10/29/87

Selenazole PT

VEE	2.25	0.75	0.74	Vero	0.32	0.43	11/11/87
YFV	2.6	0.87	2.19	Vero	3.2	1.46	05/27/87
YFV	2.20	0.73	1.79	Vero	1.0	0.56	06/29/87
YFV	2.40	0.80	1.74	Vero	3.2	1.84	07/06/87
YFV	2.44	0.81	4.09	Vero	3.2	0.78	07/07/87
YFV	2.5	0.83	1.59	Vero	1.0	0.63	07/09/87
YFV	2.29	0.76	1.69	Vero	3.2	1.89	07/14/87
YFV	2.5	0.83	1.59	Vero	1.0	0.63	07/15/87
YFV	2.5	0.83	1.7	Vero	3.2	1.89	08/14/87
JE	3.14	1.05	0.59	Vero	3.2	5.45	05/27/87
JE	2.05	0.68	2.33	Vero	3.2	1.38	06/29/87
JE	3.17	1.06	1.88	Vero	10.0	5.33	06/30/87
JE	2.69	0.90	0.98	Vero	3.2	3.28	07/01/87
JE	2.65	0.88	1.44	Vero	3.2	2.23	07/02/87
JE	3.70	1.23	0.58	Vero	3.2	5.51	07/06/87
JE	3.1	1.03	0.8	Vero	3.2	3.99	07/07/87
JE	2.60	0.87	2.8	Vero	10.0	3.57	07/08/87
JE	3.79	1.26	0.26	Vero	3.2	12.34	07/09/87
JE	2.6	0.87	1.6	Vero	3.2	2.0	07/24/87
JE	2.25	0.75	2.6	Vero	3.2	1.22	08/14/87

JE	2.45	0.82	2.0	Vero	3.2	1.6	08/14/87
VV	2.3	0.77	9.48	Vero	10.0	1.06	05/28/87
VV	2.1	0.7	10.5	Vero	10.0	0.94	06/25/87
VV	2.0	0.67	12.6	Vero	10.0	0.79	07/02/87
VV	2.2	0.72	14.2	Vero	10.0	0.70	07/09/87
VV	1.85	0.62	31.91	Vero	32.0	1.0	08/27/87
Ad	1.35	0.45	18.47	HEP-2	32.0	1.73	05/28/87
Ad	1.25	0.42	21.16	HEP-2	32.0	1.51	06/25/87
Ad	1.45	0.48	36.79	HEP-2	32.0	0.87	07/02/87
Ad	1.7	0.57	15.04	HEP-2	32.0	2.13	07/09/87
Ad	1.1	0.37	47.78	HEP-2	100.0	2.14	09/04/87
Ad	1.1	0.35	100.0	HEP-2	32.0	0.3	09/24/87
Ad	0.9	0.3	100.0	HEP-2	32.0	0.3	09/24/87
Ad	0.8	0.3	157.3	HEP-2	32.0	0.2	09/24/87
Ad	0.9	0.3	133.2	HEP-2	32.0	0.2	09/24/87
Ad	0.9	0.3	110.0	HEP-2	32.0	0.3	09/24/87
Ad	1.9	0.6	27.8	HEP-2	32.0	1.2	10/29/87
Ad	1.8	0.6	31.0	HEP-2	32.0	1.0	10/29/87
Ad	1.7	0.6	30.7	HEP-2	32.0	1.0	10/29/87
Ad	1.5	0.5	56.0	HEP-2	32.0	0.6	10/29/87
Ad	1.7	0.6	37.0	HEP-2	32.0	0.9	10/29/87

 VR* = Virus Rating calculated according to the method of Sidwell and
 Huffman (Appl. Microbiol. 22: 797-801, 1971).

UPDATED: 11/16/87:ADB

Shipment No. 24 (Filename AVS1.24)

AVS No.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
2769	PT	0.12	0.04	--	Vero	3.2	--	07/07/87
	VV	0	0	--	Vero	>320.0	--	07/02/87
	Ad	>0.3	>0.1	--	HEP-2	>320.0	--	07/02/87
	VSV	>0.1	>0.03	--	L929	>320.0	--	06/23/87
2704	PT	0	0	--	Vero	10.0	--	07/01/87
	VV	0	0	--	Vero	>320.0	--	07/02/87
	Ad	>0.6	>0.2	--	HEP-2	>320.0	--	07/02/87
	VSV	0	0	--	L929	>320.0	--	06/23/87
2786	PT	0.92	0.31	57.81	Vero	100.0	1.73	06/12/87
	YFV	0	0	--	Vero	32.0	--	08/12/87
	JE	0	0	--	Vero	100.0	--	06/17/87
	SF	1.3	0.43	50.48	Vero	32.0	0.63	08/12/87
	VV	1.1	0.37	71.05	Vero	<320.0	4.5	07/02/87
	Ad	0.2	0.07	--	HEP-2	<100.0	--	07/02/87
	VSV	0	0	--	L929	32.0	--	06/23/87
2787	PT	>0.34	>0.11	--	Vero	>320.0	--	06/12/87
	YFV	>0.1	>0.03	--	Vero	>320.0	--	08/12/87
	JE	0.35	0.12	270.9	Vero	320.0	1.18	06/17/87
	SF	0	0	--	Vero	320.0	--	08/12/87
	VV	>0.6	>0.2	--	Vero	>320.0	--	07/02/87
	Ad	>1.2	>0.4	179.1	HEP-2	>320.0	1.79	07/02/87
	VSV	0	0	--	L929	>320.0	--	06/23/87
2788	PT	>0.24	>0.08	--	Vero	>320.0	--	06/12/87
	YFV	>0.1	>0.03	--	Vero	>320.0	--	08/12/87
	JE	0.6	0.2	225.5	Vero	320.0	1.42	06/17/87
	SF	0	0	--	Vero	>320.0	--	08/12/87
	VV	>0.1	>0.03	--	Vero	>320.0	--	07/02/87
	Ad	0	0	--	HEP-2	>320.0	--	07/02/87
	VSV	0	0	--	L929	>320.0	--	06/23/87
2789	PT	>0.49	>0.16	--	Vero	>320.0	--	06/12/87
	YFV	0	0	--	Vero	>320.0	--	08/12/87
	JE	0	0	--	Vero	>320.0	--	06/17/87
	SF	0	0	--	Vero	>320.0	--	08/12/87
	VV	0	0	--	Vero	>320.0	--	07/02/87
	Ad	>0.4	>0.13	--	HEP-2	>320.0	--	07/02/87
	VSV	0	0	--	L929	>320.0	--	06/23/87
2790	PT	>0.05	>0.02	--	Vero	>320.0	--	06/12/87
	YFV	0	0	--	Vero	320.0	--	08/12/87
	JE	0.4	0.13	239.2	Vero	100.0	0.42	06/17/87
	SF	0	0	--	Vero	320.0	--	08/12/87
	VV	>0.1	>0.03	--	Vero	>320.0	--	07/02/87
	Ad	0	0	--	HEP-2	>320.0	--	07/02/87
	VSV	0	0	--	L929	>320.0	--	06/23/87
2791	PT	0	0	--	Vero	10.0	--	09/04/87
2792	PT	0.20	0.07	--	Vero	0.1	--	09/21/87

2793	PT	0	0	--	Vero	(320.0	--	09/04/87
2794	PT	0.05	0.02	--	Vero	1.0	--	09/04/87
2795	PT	0	0	--	Vero	1.0	--	09/04/87
2796	PT	0	0	--	Vero	10.32	--	09/04/87
2797	PT	0	0	--	Vero	100.0	--	09/04/87
2798	PT	0	0	--	Vero	100.0	--	09/04/87
2799	PT	0	0	--	Vero	320.0	--	09/04/87
2800	PT	0	0	--	Vero	32.0	--	09/04/87
2801	PT	0	0	--	Vero	10.0	--	09/04/87
2802	PT							
2803	PT							
2804	PT							
2805	PT							
2806	PT JE	0	0	--	Vero	32.0	--	10/28/87
2807	PT							
2808	PT							
2809	PT	>0.10	>0.03	--	Vero	>100.0	--	10/28/87
2810	PT							
2811	PT							
2812	PT							
2813	JE	0	0	--	Vero	(0.32	--	07/24/87
2814	PT	0	0	--	Vero	1.0	--	09/11/87
2815	PT	0.45	0.15	23.9	Vero	3.2	0.13	09/11/87
2816	PT	0.20	0.07	--	Vero	100.0	--	09/11/87
2817	PT	0.40	0.13	23.9	Vero	3.2	0.13	09/11/87
2818	PT	0	0	--	Vero	100.0	--	09/11/87
2819	PT	0	0	--	Vero	(10.0	--	09/11/87
2820	PT	0	0	--	Vero	10.0	--	09/11/87
2821	PT	0.05	0.02	--	Vero	3.2	--	09/11/87

2822	PT	0.05	0.02	--	Vera	3.2	--	09/14/87
2823	PT	0.20	0.07	--	Vera	10.0	--	09/14/87
2824	PT	0.10	0.03	--	Vera	10.0	--	09/11/87
2825	PT							
2826	PT							
2827	PT							

(Filename AVS1.24)

SHIPMENT NO. 24 continued: (Filename AVS2.24)

AVS NO.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
2828	PT							
2829	PT	0.55	0.18	--	Vero	10.0	--	09/14/87
2830	PT	1.02	0.34	--	Vero	100.0	--	09/14/87
2831	PT							
2832	PT	0.05	0.02	--	Vero	100.0	--	09/15/87
2833	PT	0.22	0.07	--	Vero	10.0	--	09/14/87
2834	PT	0.17	0.06	--	Vero	1.0	--	09/14/87
2835	PT	0.30	0.10	--	Vero	3.2	--	09/14/87
2836	PT	0.92	0.31	1.69	Vero	3.2	1.89	09/14/87
2837	PT	0.50	0.17	7.53	Vero	3.2	0.43	09/15/87
2838	PT	0.52	0.17	67.3	Vero	3.2	0.05	09/15/87
2839	PT	0.07	0.02	--	Vero	10.32	--	09/15/87
2840	PT	1.0	0.3	0.098	Vero	0.1	1.0	10/15/87
2841	PT	0.77	0.26	12.8	Vero	10.0	0.78	09/15/87
2842	PT	0	0	--	Vero	320.0	--	09/15/87
2843	PT	0	0	--	Vero	320.0	--	09/15/87
2844	PT	0.07	0.02	--	Vero	1.0	--	09/15/87
2845	PT	0.12	0.04	--	Vero	10.32	--	09/15/87
2846	PT	0.07	0.02	--	Vero	320.0	--	09/15/87
2847	PT							
2848	PT							
2849	PT							
2850	PT							
2851	PT							
2852	PT							
2853	PT							
2854	PT							

2855	PT							
2856	PT	0	0	--	Vero	0.001	--	10/15/87
2857	PT	0	0	--	Vero	3.2	--	09/18/87
2858	PT	0.05	0.02	--	Vero	3.2	--	10/15/87
2859	PT	0	0	--	Vero	10.0	--	09/18/87
2892	PT	0	0	--	Vero	320.0	--	09/18/87
Ara-A	VV	3.25	1.08	0.97	Vero	8.5	8.72	07/02/87
C-3-deaza- Ado	VSV	2.8	0.93	2.52	L929	3.2	1.27	06/23/87
Ribavirin	PT	2.31	0.77	7.4	Vero	100.0	13.5	06/12/87
	PT	2.36	0.79	13.04	Vero	100.0	7.67	07/01/87
	PT	2.23	0.74	16.94	Vero	100.0	5.9	07/07/87
	PT	0.85	0.28	45.68	Vero	100.0	2.19	09/04/87
	PT	1.90	0.63	18.50	Vero	100.0	5.41	09/11/87
	PT	2.54	0.85	10.75	Vero	100.0	9.30	09/14/87
	PT	1.27	0.42	30.18	Vero	100.0	3.31	09/15/87
	PT	1.40	0.47	30.77	Vero	100.0	3.25	09/18/87
	PT	1.70	0.57	20.12	Vero	100.0	4.97	09/21/87
	PT	0.77	0.26	62.15	Vero	100.0	1.61	10/15/87
	PT	1.20	0.40	9.04	Vero	10.0	1.11	10/28/87
	PT	1.45	0.48	20.08	Vero	100.0	4.98	10/28/87
	SF	2.24	0.8	10.07	Vero	100.0	9.93	08/12/87
	Ad	2.0	0.67	15.9	HEP-2	100.0	6.29	07/02/87
Selenazole	PT	1.4	0.47	14.08	Vero	10.0	0.71	10/15/87
	PT	0.75	0.25	42.03	Vero	3.2	0.08	10/28/87
	PT	0.67	0.22	221.0	Vero	10.0	0.05	10/28/87
	YFV	2.4	0.8	1.79	Vero	1.0	0.56	08/12/87
	JE	2.75	0.92	4.30	Vero	10.0	2.33	06/17/87
	JE	2.6	0.87	1.6	Vero	3.2	2.0	07/24/87
	VV	2.0	0.67	12.6	Vero	10.0	0.79	07/02/87
	Ad	1.45	0.48	36.8	HEP-2	32.0	0.87	07/02/87

VR* = Virus Rating calculated according to the method of Sidwell and Huffman (Appl. Microbiol. 22: 797-801, 1971).

UPDATED:11/16/87:ADR
(Filename AVS2.24)

SHIPMENT NO. 25

AVS NO.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
346	PT	0.77	0.26	7.211	Vero	10.0	1.39	09/23/87
	SF							
	VV	0	0	--	Vero	1.0	--	07/09/87
	Ad	0	0	--	HEP-2	1.0	--	07/09/87
	VSV	0.95	0.32	0.41	L929	1.0	2.42	07/10/87
	VSV	1.4	0.47	0.09	L929	0.32	3.6	07/28/87
353	PT	0	0	--	Vero	10.00032	--	11/11/87
	YFV	0	0	--	Vero	0.032	--	08/31/87
	JE	0	0	--	Vero	10.32	--	09/04/87
	SF	0.4	0.13	0.075	Vero	0.032	0.43	08/31/87
	VV	0	0	--	Vero	0.1	--	07/09/87
	Ad	0	0	--	HEP-2	0.032	--	07/09/87
	VSV	0	0	--	L929	10.32	--	07/10/87
368	PT							
	YFV	0.1	0.03	--	Vero	32.0	--	09/23/87
	JE	>0.2	>0.07	--	Vero	>320.0	--	08/26/87
	SF	0	0	--	Vero	100.0	--	09/23/87
	VV	0	0	--	Vero	>320.0	--	07/09/87
	Ad	0	0	--	HEP-2	>320.0	--	07/09/87
VSV	0	0	--	L929	320.0	--	07/28/87	
2813	PT							
	VV	0	0	--	Vero	0.01	--	08/13/87
	Ad	0	0	--	HEP-2	0.01	--	07/30/87
VSV	0	0	--	L929	10.32	--	07/10/87	
2934	PT	0	0	--	Vero	0.001	--	11/11/87
	YFV	0	0	--	Vero	0.1	--	08/31/87
	YFV	0	0	--	Vero	3.2	--	09/23/87
	JE	0	0	--	Vero	10.32	--	08/26/87
	JE	0	0	--	Vero	1.0	--	09/04/87
	SF	0.1	0.03	--	Vero	0.1	--	08/31/87
	SF	0.2	0.05	--	Vero	3.2	--	09/23/87
	VV	0.1	0.03	--	Vero	0.32	--	07/30/87
	Ad	0	0	--	HEP2	0.00032	--	07/30/87
	VSV	0	0	--	L929	10.32	--	07/10/87
	VSV	0	0	--	L929	10.01	--	07/28/87
	2978	PT	0.20	0.07	--	Vero	320.0	--	09/23/87
VEE		0	0	--	Vero	100.0	--	11/19/87
YFV		0	0	--	Vero	100.0	--	08/13/87
JE		0	0	--	Vero	100.0	--	09/04/87
SF		0	0	--	Vero	100.0	--	08/13/87
VV		0	0	--	Vero	>320.0	--	07/09/87
Ad		0.4	0.13	--	HEP-2	320.0	--	07/09/87
VSV		0	0	--	L929	320.0	--	07/10/87
VSV		0	0	--	L929	320.0	--	08/04/87
2979	PT	1.37	0.46	97.78	Vero	100.0	1.02	09/23/87
	VEE	0	0	--	Vero	1.0	--	11/19/87
	YFV	0.9	0.3	4.68	Vero	10.0	2.14	09/01/87

	JE	1.47	0.49	6.25	Vero	32.0	5.12	08/11/87
	SF	0.7	0.23	5.37	Vero	10.0	1.86	09/01/87
	VV	0.25	0.08	--	Vero	32.0	--	07/09/87
	Ad	1.65	0.55	11.4	HEP-2	32.0	2.8	07/09/87
	VSV	1.6	0.53	8.16	L929	3.2	0.39	07/10/87
	VSV	0.7	0.23	5.05	L929	3.2	0.63	08/04/87
2980	PT	1.35	0.45	0.68	Vero	3.2	4.68	11/11/87
	PT	0.90	0.30	7.51	Vero	10.0	1.33	11/12/87
	VEE	0.35	0.12	--	Vero	1.0	--	11/19/87
	JE	2.32	0.77	0.6	Vero	10.0	16.0	08/11/87
	SF	1.7	0.57	1.18	Vero	3.2	2.71	02/01/87
	VV	0.6	0.2	5.65	Vero	10.0	1.77	07/09/87
	VV	0.15	0.05	--	Vero	3.2	--	11/12/87
	Ad	2.1	0.7	1.47	HEP-2	10.0	6.79	07/09/87
	Ad	2.0	0.7	0.97	HEP-2	3.2	3.3	10/29/87
	Ad	1.5	0.5	1.47	HEP2	3.2	2.17	11/12/87
	VSV	0	0	--	L929	3.2	--	07/10/87
	VSV	0.7	0.23	4.56	L929	3.2	0.7	08/04/87
Ara-A	VV	2.7	0.9	0.67	Vero	3.2	4.81	07/09/87
	VV	2.65	0.88	1.2	Vero	3.2	2.6	07/30/87
	VV	2.35	0.78	1.14	Vero	3.2	2.82	08/13/87
	VV	3.3	1.1	1.63	Vero	3.2	19.7	11/12/87
C-3-deaza- Adc	VSV	2.8	0.93	3.14	L929	10.0	3.19	07/10/87
	VSV	3.05	1.02	2.98	L929	10.0	3.36	07/28/87
	VSV	2.95	0.98	1.68	L929	3.2	1.91	08/04/87
Rivavirin	PT	1.82	0.61	30.59	Vero	100.0	3.27	09/23/87
	PT	0.9	0.3	21.7	Vero	32.0	1.47	11/11/87
	PT	0.8	0.3	25.69	Vero	32.0	1.20	11/12/87
	VEE	0.5	0.2	58.36	Vero	32.0	0.47	11/19/87
	SF	2.5	0.83	5.06	Vero	32.0	6.33	08/13/87
	SF	2.1	0.7	8.31	Vero	32.0	3.85	08/31/87
	SF	2.0	0.67	15.92	Vero	100.0	6.28	09/01/87
	SF	2.62	0.87	8.81	Vero	100.0	11.35	09/23/87
	Ad	2.25	0.75	15.6	HEP-2	100.0	6.41	07/09/87
	Ad	2.1	0.7	20.96	HEP-2	100.0	4.77	07/30/87
	Ad	1.88	0.6	11.23	HEP-2	32.0	2.85	08/13/87
	Ad	1.4	0.5	50.6	HEP-2	100.0	2.0	10/29/87
	Ad	1.6	0.5	40.1	HEP-2	100.0	2.5	10/29/87
	Ad	1.5	0.5	45.7	HEP-2	100.0	2.2	10/29/87
	Ad	1.8	0.6	42.9	HEP-2	100.0	2.3	10/29/87
	Ad	1.5	0.5	50.5	HEP-2	100.0	2.0	10/29/87
	Ad	1.6	0.5	46.7	HEP-2	100.0	2.1	10/29/87
	Ad	1.9	0.6	35.2	HEP2	100.0	2.8	11/12/87
Selenazole	PT	1.2	0.4	12.8	Vero	1.0	0.08	11/11/87
	PT	0.9	0.3	14.84	Vero	3.2	0.22	11/12/87
	VEE	1.3	0.4	4.28	Vero	1.0	0.23	11/19/87
	YFV	2.45	0.82	1.7	Vero	1.0	0.59	08/13/87
	YFV	2.4	0.8	1.79	Vero	3.2	1.79	08/31/87
	YFV	2.5	0.82	1.70	Vero	1.0	0.59	09/23/87

JE	2.19	0.73	1.3	Vero	3.2	2.47	08/11/87
JE	2.09	0.7	2.86	Vero	3.2	1.12	08/26/87
JE	2.6	0.87	0.995	Vero	3.2	3.22	08/26/87
JE	2.24	0.75	2.03	Vero	3.2	1.58	09/04/87
VV	2.15	0.72	14.2	Vero	10.0	0.70	07/09/87
VV	2.2	0.73	14.91	Vero	10.0	0.67	07/30/87
VV	1.95	0.65	17.88	Vero	10.0	0.56	08/13/87
VV	2.4	0.8	5.70	Vero	10.0	1.76	11/12/87
Ad	1.7	0.57	15.0	HEP-2	32.0	2.13	07/09/87
Ad	1.4	0.47	53.28	HEP-2	32.0	0.6	07/30/87
Ad	1.45	0.48	13.55	HEP-2	32.0	2.36	08/13/87
Ad	1.9	0.6	27.8	HEP-2	32.0	1.2	10/29/87
Ad	1.8	0.6	31.0	HEP-2	32.0	1.0	10/29/87
Ad	1.7	0.6	30.7	HEP-2	32.0	1.0	10/29/87
Ad	1.5	0.5	56.0	HEP-2	32.0	0.6	10/29/87
Ad	1.7	0.6	37.0	HEP-2	32.0	0.9	10/29/87
Ad	1.4	0.5	17.4	HEP-2	32.0	1.8	11/12/87

VR* = Virus Rating calculated according to the method of Sidwell and Huffman (Appl. Microbiol. 22: 797-801, 1971).

UPDATED:11/30/87:ADB

SHIPMENT NO. 26

AVS NO.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
215	PIC	(IN VIVO ONLY)						
1968	PT							
	YFV	0	0	--	Vero	3.2	--	09/01/87
	JE	0	0	--	Vero	10.0	--	09/03/87
	VV	0.15	0.05	--	Vero	3.2	--	09/24/87
	**VV	0	0	--	Vero	1.0	--	09/24/87
	Ad	0	0	--	HEp-2	1.0	--	09/24/87
	**Ad	0	0	--	HEp-2	1.0	--	09/24/87
	SF	0.25	0.08	--	Vero	1.0	--	09/01/87
	VSV	0	0	--	L929	<10.0	--	07/17/87
	**VSV	0	0	--	Vero	<10.0	--	11/05/87
	VSV	0	0	--	Vero	<10.0	--	11/06/87
2869	PT	0.25	0.08	--	Vero	100.0	--	09/24/87
	YFV	0.15	0.05	--	Vero	320.0	--	09/02/87
	JE	0	0	--	Vero	320.0	--	08/11/87
	SF	0.15	0.05	--	Vero	32.0	--	09/02/87
	VV	0	0	--	Vero	>320.0	--	07/09/87
	Ad	0	0	--	HEp-2	320.0	--	07/09/87
	VSV	0	0	--	L929	>320.0	--	07/10/87
2870	PT	0.35	0.12	--	Vero	10.32	--	09/24/87
	YFV	0	0	--	Vero	10.32	--	09/02/87
	JE	0	0	--	Vero	32.0	--	08/11/87
	SF	0.05	0.02	--	Vero	10.32	--	09/02/87
	VV	0	0	--	Vero	0.1	--	07/16/87
	Ad	0	0	--	HEP-2	0.032	--	09/04/87
	VSV	0	0	--	L929	0.1	--	07/10/87
2871	PT	0	0	--	Vero	0.32	--	11/11/87
	YFV	0	0	--	Vero	32.0	--	09/02/87
	JE	0	0	--	Vero	100.0	--	08/13/87
	SF	0	0	--	Vero	10.0	--	09/02/87
	VV	0	0	--	Vero	0.01	--	09/04/87
	Ad	0	0	--	HEP-2	0.032	--	09/04/87
	VSV	0	0	--	L929	0.032	--	07/10/87
2872	PT	0.17	0.06	--	Vero	100.0	--	09/24/87
	YFV	0.32	0.1	--	Vero	32.0	--	09/02/87
	JE	0	0	--	Vero	10.0	--	08/11/87
	SF	0.15	0.05	--	Vero	10.0	--	09/02/87
	VV	0	0	--	Vero	>32.0	--	07/16/87
	Ad	0	0	--	HEp-2	10.0	--	07/16/87
	VSV	0	0	--	L929	<100.0	--	07/28/87
2873	PT	>0.10	>0.03	--	Vero	>320.0	--	09/24/87
	YFV	0	0	--	Vero	>320.0	--	09/02/87
	JE	0	0	--	Vero	>320.0	--	08/11/87
	SF	0	0	--	Vero	>320.0	--	09/02/87
	VV	>3.3	>1.1	10.70	Vero	>320.0	>29.9	07/16/87
	VV	>3.6	>1.2	10.0	Vero	>320.0	>32.0	08/27/87
	Ad	0.15	0.05	--	HEp-2	32.0	--	07/16/87

	VSV	0	0	--	L929	>320.0	--	07/10/87
2874	PT	0.10	0.03	--	Vero	>320.0	--	09/24/87
	JE	0	0	--	Vero	320.0	--	08/11/87
	SF	0	0	--	Vero	320.0	--	09/03/87
	VV	>5.2	>1.7	2.34	Vero	>320.0	>136.75	07/16/87
	VV	>5.0	>1.67	3.59	Vero	>320.0	>89.17	08/27/87
	Ad	>0.2	>0.07	--	HEp-2	>320.0	--	07/16/87
	VSV	0	0	--	L929	>320.0	--	07/10/87
2875	PT	0	0	--	Vero	320.0	--	09/24/87
	YFV	0	0	--	Vero	100.0	--	09/03/87
	JE	0.17	0.06	--	Vero	320.0	--	08/11/87
	SF	0	0	--	Vero	100.0	--	09/03/87
	VV	>7.3	>2.4	<0.32	Vero	>320.0	>1000	07/16/87
	VV	>7.1	>2.4	0.41	Vero	>320.0	>786	09/24/87
	Ad	0.85	0.28	178.6	HEp-2	320.0	1.79	07/16/87
	VSV	0	0	--	L929	320.0	--	07/10/87
2876	PT	0	0	--	Vero	100.0	--	09/28/87
	YFV	0	0	--	Vero	320.0	--	09/03/87
	JE	0	0	--	Vero	320.0	--	06/11/87
	SF	0.6	0.2	162.4	Vero	32.0	0.2	09/03/87
	VV	>0.1	>0.03	--	Vero	>320.0	--	07/30/87
	Ad	>0.4	>0.13	--	HEP-2	>320.0	--	07/30/87
	VSV	0	0	--	L929	>320.0	--	07/17/87
2877	PT	0.10	0.03	--	Vero	100.0	--	09/28/87
	YFV	0	0	--	Vero	32.0	--	09/03/87
	JE	0.23	0.08	--	Vero	100.0	--	09/03/87
	SF							
	VV	0.45	0.15	--	Vero	<100.0	--	07/16/87
	Ad	0.5	0.17	--	HEP-2	<100.0	--	07/16/87
	VSV	0	0	--	L929	100.0	--	07/14/87
2878	PT	0	0	--	Vero	32.0	--	09/28/87
	YFV	0	0	--	Vero	32.0	--	09/03/87
	JE	0	0	--	Vero	100.0	--	08/13/87
	SF	0.32	0.11	80.29	Vero	10.0	0.12	09/03/87
	VV	0.6	0.2	93.95	Vero	100.0	1.06	07/16/87
	Ad	0	0	--	HEP-2	100.0	--	07/16/87
	VSV	0	0	--	L929	<320.0	--	07/14/87
2879	PT	0	0	--	Vero	>320.0	--	09/28/87
	YFV	0	0	--	Vero	>320.0	--	09/04/87
	JE	0	0	--	Vero	>320.0	--	08/13/87
	SF	0	0	--	Vero	>320.0	--	09/04/87
	VV	>5.1	>1.7	2.4	Vero	>320.0	>133.6	07/16/87
	VV	>5.4	>1.8	3.2	Vero	>320.0	>100.0	08/27/87
	Ad	0	0	--	HEP-2	>320.0	--	07/16/87
	VSV	0	0	--	L929	320.0	--	07/14/87
2880	PT							
	YFV	0	0	--	Vero	320.0	--	09/04/87
	JE	0	0	--	Vero	>320.0	--	09/03/87
	SF	0	0	--	Vero	320.0	--	09/04/87
	VV	0	0	--	Vero	320.0	--	09/24/87
	**VV	0	0	--	Vero	100.0	--	09/24/87
	VV	0	0	--	L929	320.0	--	10/22/87
	**VV	0.2	0.07	--	L929	320.0	--	10/22/87

	Ad	0	0	--	HEp-2	100.0	--	09/24/87
	**Ad	0	0	--	HEp-2	100.0	--	09/24/87
	** VSV	0	0	--	L929	100.0	--	07/13/87
	VSV	0	0	--	L929	320.0	--	07/14/87
2883	PT	0.05	0.02	--	Vero	320.0	--	09/28/87
	YFV	0.10	0.03	--	Vero	100.0	--	09/04/87
	JE	0	0	--	Vero	320.0	--	08/13/87
	SF	0	0	--	Vero	100.0	--	09/04/87
	VV	0	0	--	Vero	>320.0	--	07/30/87
	Ad	>0.3	>0.1	--	HEP-2	>320.0	--	07/30/87
	VSV	0	0	--	L929	>320.0	--	07/14/87
2884	PT	0.05	0.02	--	Vero	320.0	--	09/28/87
	YFV	0.10	0.03	--	Vero	32.0	--	09/04/87
	JE	0	0	--	Vero	320.0	--	08/13/87
	SF	0.05	0.02	--	Vero	100.0	--	09/04/87
	VV	0	0	--	Vero	>320.0	--	07/30/87
	Ad	0.1	0.03	--	HEP-2	320.0	--	07/30/87
	VSV	0	0	--	L929	>320.0	--	07/14/87
2885	PT	0	0	--	Vero	<320.0	--	09/28/87
	YFV	0.15	0.05	--	Vero	100.0	--	09/04/87
	JE	0	0	--	Vero	32.0	--	08/14/87
	SF	0.7	0.23	159.2	Vero	100.0	0.63	09/04/87
	VV	0.1	0.03	--	Vero	100.0	--	07/16/87
	Ad	0	0	--	HEP-2	10.0	--	07/16/87
	VSV	0	0	--	L929	10.0	--	07/14/87
2886	PT							
	YFV	0	0	--	Vero	320.0	--	09/08/87
	JE	0	0	--	Vero	32.0	--	08/14/87
	SF	0.3	0.1	320.0	Vero	32.0	0.1	09/08/87
	VV	0	0	--	Vero	10.0	--	07/16/87
	Ad	0	0	--	HEP-2	1.0	--	07/16/87
	VSV	0	0	--	L929	<100.0	--	07/14/87
2887	PT							
	YFV	0	0	--	Vero	100.0	--	09/08/87
	JE	0	0	--	Vero	>320.0	--	08/14/87
	SF	0	0	--	Vero	100.0	--	09/08/87
	VV	0.35	0.12	--	Vero	320.0	--	07/16/87
	Ad	0.15	0.05	--	HEP-2	320.0	--	07/16/87
	VSV	0	0	--	L929	320.0	--	07/14/87
2888	PT							
	YFV	0	0	--	Vero	>320.0	--	09/08/87
	JE	0	0	--	Vero	>320.0	--	08/14/87
	SF	0	0	--	Vero	320.0	--	09/08/87
	VV	>5.3	>1.8	2.3	Vero	>320.0	>139.03	07/16/87
	VV	>6.0	>2.0	1.55	Vero	>320.0	>206.48	08/27/87
	Ad	0	0	--	HEP-2	>320.0	--	07/16/87
	VSV	0	0	--	L929	100.0	--	07/14/87
2889	PT							
	YFV	0	0	--	Vero	>320.0	--	09/08/87
	JE	0	0	--	Vero	>320.0	--	08/14/87
	SF	0	0	--	Vero	>320.0	--	09/08/87
	VV	>4.3	>1.4	6.37	Vero	>320.0	>50.2	07/16/87
	VV	>6.1	>2.03	1.55	Vero	>320.0	>206.72	06/17/87

	Ad	>0.2	>0.07	--	HEp-2	>320.0	--	07/16/87
	VSV	0	0	--	L929	100.0	--	07/14/87
2890	PT							
	YFV	0	0	--	Vero	320.0	--	09/08/87
	JE	>0.05	>0.02	--	Vero	>320.0	--	08/17/87
	SF	0	0	--	Vero	>320.0	--	09/08/87
	VV	>5.3	>1.8	2.4	Vero	>320.0	>134.1	07/16/87
	VV	>5.9	>1.97	1.76	Vero	>320.0	>181.87	08/27/87
	Ad	>0.3	>0.1	--	HEp-2	>320.0	--	07/16/87
	VSV	0	0	--	L929	>320.0	--	07/14/87
2891	PT							
	YFV	0	0	--	Vero	320.0	--	09/09/87
	JE	0	0	--	Vero	>320.0	--	08/17/87
	SF	0	0	--	Vero	320.0	--	09/09/87
	VV	>4.7	>1.6	3.7	Vero	>320.0	>86.9	07/16/87
	VV	>5.9	>1.97	2.0	Vero	>320.0	>159.53	08/27/87
	Ad	0	0	--	HEp-2	>320.0	--	07/16/87
	VSV	0	0	--	L929	320.0	--	07/14/87
2893	PT	0.65	0.22	156.2	Vero	100.0	0.64	11/17/87
	YFV	0.25	0.08	--	Vero	100.0	--	09/09/87
	JE	0.1	0.03	--	Vero	100.0	--	08/17/87
	SF	0	0	--	Vero	32.0	--	09/09/87
	VV	1.65	0.55	86.74	Vero	320.0	3.7	07/16/87
	Ad	0	0	--	HEp-2	<100.0	--	07/16/87
	VSV	0.9	0.3	147.36	L929	320.0	2.17	07/14/87
2894	PT							
	YFV	0	0	--	Vero	100.0	--	09/09/87
	JE	0	0	--	Vero	32.0	--	08/17/87
	SF	0.25	0.08	--	Vero	32.0	--	09/09/87
	VV	0	0	--	Vero	32.0	--	07/16/87
	Ad	0	0	--	HEp-2	32.0	--	07/16/87
	VSV	0	0	--	L929	<320.0	--	07/14/87
2895	PT							
	YFV	0	0	--	Vero	320.0	--	09/09/87
	JE	0	0	--	Vero	>320.0	--	08/17/87
	SF	0.2	0.07	--	Vero	320.0	--	09/09/87
	VV	>5.8	>1.9	1.27	Vero	>320.0	>251.28	07/16/87
	VV	>6.6	>2.2	1.0	Vero	>320.0	>317.72	08/27/87
	Ad	0	0	--	HEp-2	320.0	--	07/16/87
	VSV	0	0	--	L929	>320.0	--	07/14/87
2896	PT							
	YFV	0	0	--	Vero	100.0	--	09/09/87
	JE	0	0	--	Vero	320.0	--	08/18/87
	SF	0.1	0.03	--	Vero	100.0	--	09/09/87
	VV	>6.0	>2.0	1.08	Vero	>320.0	>295.2	07/30/87
	VV	>5.6	>1.87	1.66	Vero	>320.0	>192.78	08/27/87
	Ad	0	0	--	HEP-2	320.0	--	07/30/87
	VSV	0	0	--	L929	320.0	--	07/14/87
2898	PT							
	YFV	0	0	--	Vero	3.2	--	09/10/87
	JE	0	0	--	Vero	3.2	--	08/18/87
	SF	0.35	0.12	--	Vero	3.2	--	09/10/87
	VV	0	0	--	Vero	10.0	--	07/30/87

	VSV	0	0	--	L929	320.0	--	07/17/87
2913	PT							
	YFV	0	0	--	Vero	100.0	--	09/17/87
	JE	0	0	--	Vero	100.0	--	08/21/87
	SF	0	0	--	Vero	100.0	--	09/17/87
	VV	6.1	2.03	1.02	Vero	320.0	313.7	07/30/87
	VV	6.3	2.1	1.03	Vero	320.0	311.11	08/27/87
	Ad	0	0	--	HEP-2	320.0	--	07/30/87
	VSV	0	0	--	L929	320.0	--	07/17/87
2914	PT							
	YFV	0	0	--	Vero	100.0	--	09/17/87
	JE	0	0	--	Vero	100.0	--	08/21/87
	SF	0.15	0.05	--	Vero	100.0	--	09/17/87
	VV	1.3	0.43	128.9	Vero	320.0	2.48	07/30/87
	Ad	0	0	--	HEP-2	100.0	--	07/30/87
	VSV	0	0	--	L929	320.0	--	07/17/87
2915	PT	0	0	--	Vero	32.0	--	10/21/87
	YFV	0	0	--	Vero	100.0	--	09/17/87
	JE	0	0	--	Vero	100.0	--	08/21/87
	SF	0	0	--	Vero	320.0	--	09/17/87
	VV	0.6	0.2	60.17	Vero	32.0	0.53	07/30/87
	Ad	0.3	0.1	--	HEP-2	100.0	--	07/30/87
	VSV	0.15	0.05	--	L929	100.0	--	07/17/87
2916	PT	0.25	0.08	--	Vero	32.0	--	10/21/87
	YFV	0	0	--	Vero	100.0	--	09/17/87
	JE	0	0	--	Vero	10.0	--	08/21/87
	SF	0.50	0.17	200.8	Vero	32.0	0.16	09/17/87
	VV	0	0	--	Vero	100.0	--	08/06/87
	Ad	0	0	--	HEP-2	3.2	--	08/06/87
	VSV	0	0	--	L929	100.0	--	07/17/87
2917	PT	0.35	0.12	270.0	Vero	320.0	1.18	10/21/87
	YFV	0	0	--	Vero	100.0	--	09/17/87
	JE	0	0	--	Vero	32.0	--	08/24/87
	SF	0.10	0.03	--	Vero	100.0	--	09/17/87
	VV	1.0	0.33	46.78	Vero	10.0	0.21	08/06/87
	Ad	0	0	--	HEP-2	32.0	--	08/06/87
	VSV	0	0	--	L929	32.0	--	07/17/87
2918	PT	0	0	--	Vero	100.0	--	10/21/87
	YFV	0	0	--	Vero	100.0	--	09/18/87
	JE	0	0	--	Vero	320.0	--	08/24/87
	SF	0	0	--	Vero	32.0	--	09/18/87
	VV	0.35	0.12	319.8	Vero	100.0	0.31	08/06/87
	Ad	0	0	--	HEP-2	100.0	--	08/06/87
	VSV	0	0	--	L929	320.0	--	07/17/87
2919	PT	0	0	--	Vero	100.0	--	10/21/87
	YFV	0	0	--	Vero	10.0	--	09/18/87
	JE	0	0	--	Vero	100.0	--	08/24/87
	SF	0.45	0.15	27.7	Vero	32.0	1.15	09/18/87
	VV	0	0	--	Vero	32.0	--	08/06/87
	Ad	0	0	--	HEP-2	32.0	--	08/06/87
	VSV	0	0	--	L929	10.0	--	07/21/87

2926	PT							
	YFV	0	0	--	Vero	320.0	--	09/18/87
	JE	0	0	--	Vero	320.0	--	08/24/87
	SF	0	0	--	Vero	320.0	--	09/18/87
	VV	0	0	--	Vero	320.0	--	08/06/87
	Ad	0	0	--	HEp-2	320.0	--	08/06/87
2927	VSV	0	0	--	L929	320.0	--	07/21/87
	PT							
	YFV	0	0	--	Vero	320.0	--	09/18/87
	JE	0	0	--	Vero	320.0	--	08/24/87
	SF	0.05	0.02	--	Vero	320.0	--	09/18/87
	VV	0	0	--	Vero	320.0	--	08/06/87
2928	Ad	0	0	--	HEp-2	320.0	--	08/06/87
	VSV	0	0	--	L929	320.0	--	07/21/87
	PT							
	YFV	0.35	0.12	--	Vero	100.0	--	09/18/87
	JE	0	0	--	Vero	100.0	--	08/25/87
	SF	2.44	0.81	7.75	Vero	32.0	4.13	09/18/87
2929	VV	0	0	--	Vero	320.0	--	08/06/87
	Ad	0.15	0.05	--	HEp-2	320.0	--	08/06/87
	VSV	0	0	--	L929	320.0	--	07/21/87
	PT							
	YFV	0.15	0.05	--	Vero	3.2	--	09/23/87
	JE	0	0	--	Vero	320.0	--	08/25/87
2930	SF	0.82	0.27	13.94	Vero	3.2	0.23	09/23/87
	VV	0	0	--	Vero	320.0	--	08/06/87
	Ad	0	0	--	HEp-2	320.0	--	08/06/87
	VSV	0	0	--	L929	320.0	--	07/21/87
	PT							
	YFV	0	0	--	Vero	3.2	--	09/23/87
2931	JE	0	0	--	Vero	320.0	--	08/25/87
	SF	0.32	0.11	8.77	Vero	3.2	0.36	09/23/87
	VV	0	0	--	Vero	320.0	--	08/06/87
	Ad	0	0	--	HEp-2	320.0	--	08/06/87
	VSV	0	0	--	L929	320.0	--	07/21/87
	PT							
2932	YFV	0	0	--	Vero	10.32	--	09/23/87
	JE	0	0	--	Vero	100.0	--	08/25/87
	SF	0	0	--	Vero	10.32	--	09/23/87
	VV	1.0	0.33	100.4	Vero	100.0	1.0	08/06/87
	Ad	0	0	--	HEp-2	100.0	--	08/06/87
	VSV	0	0	--	L929	320.0	--	07/21/87
2933	PT							
	YFV	0.2	0.07	--	Vero	10.32	--	09/23/87
	JE	0	0	--	Vero	320.0	--	08/25/87
	SF	0	0	--	Vero	10.32	--	09/23/87
	VV	0	0	--	Vero	320.0	--	08/06/87
	Ad	0	0	--	HEp-2	320.0	--	08/06/87
2935	VSV	0	0	--	L929	320.0	--	07/21/87
	PT	0.25	0.08	--	Vero	32.0	--	10/21/87
	YFV	1.1	0.4	22.8	Vero	10.0	0.44	09/24/87
	JE	0	0	--	Vero	10.0	--	08/26/87
	SF	0.40	0.13	75.18	Vero	10.0	0.13	09/24/87

	Ad	0	0	--	HEP-2	10.0	--	07/30/87
	VSV	0	0	--	L929	(10.0	--	07/17/87
2899	PT							
	YFV	0	0	--	Vero	3.2	--	09/10/87
	JE	0	0	--	Vero	3.2	--	08/18/87
	SF	0.25	0.08	--	Vero	3.2	--	09/10/87
	VV	0	0	--	Vero	10.0	--	07/30/87
	Ad	0	0	--	HEP-2	3.2	--	07/30/87
	VSV	0	0	--	L929	10.0	--	07/17/87
2900	PT							
	YFV	0	0	--	Vero	3.2	--	09/10/87
	JE	0	0	--	Vero	10.0	--	08/18/87
	SF	0.75	0.25	3.86	Vero	3.2	0.83	09/10/87
	VV	0	0	--	Vero	10.0	--	07/30/87
	Ad	0	0	--	HEP-2	(32.0	--	07/30/87
	VSV	0	0	--	L929	(32.0	--	07/17/87
2901	PT							
	YFV	0	0	--	Vero	)320.0	--	09/10/87
	JE	0	0	--	Vero	3.2	--	08/18/87
	SF	0	0	--	Vero	)320.0	--	09/10/87
	VV	0	0	--	Vero	32.0	--	07/30/87
	Ad	0	0	--	HEP-2	32.0	--	07/30/87
	VSV	0	0	--	L929	32.0	--	07/17/87
2902	PT							
	YFV	0	0	--	Vero	100.0	--	09/10/87
	JE	0	0	--	Vero	32.0	--	08/19/87
	SF	0.3	0.1	--	Vero	32.0	--	09/10/87
	VV	3.75	1.25	0.32	Vero	32.0	100.0	07/30/87
	VV	4.85	1.62	0.087	Vero	32.0	367.8	09/24/87
	Ad	0.3	0.1	--	HEP-2	(1.0	--	07/30/87
	VSV	0	0	--	L929	32.0	--	07/17/87
2903	PT							
	YFV	0	0	--	Vero	)320.0	--	09/14/87
	JE	0	0	--	Vero	)320.0	--	08/19/87
	SF	0	0	--	Vero	)320.0	--	09/14/87
	VV	)4.4	)1.47	4.99	Vero	)320.0	)64.01	07/30/87
	VV	)3.4	)1.13	12.28	Vero	)320.0	)26.05	08/27/87
	Ad	)0.2	)0.07	--	HEP-2	)320.0	--	07/30/87
	VSV	0	0	--	L929	320.0	--	07/17/87
2904	PT							
	YFV	0	0	--	Vero	100.0	--	09/14/87
	JE	0	0	--	Vero	320.0	--	08/19/87
	SF	0.57	0.19	178.8	Vero	100.0	0.56	09/14/87
	VV	4.0	1.33	3.2	Vero	320.0	100.0	07/30/87
	VV	4.5	1.5	3.2	Vero	)320.0	)100.0	08/27/87
	Ad	0	0	--	HEP-2	)320.0	--	07/30/87
	VSV	0.05	0.017	--	L929	320.0	--	07/17/87
2905	PT							
	YFV	0	0	--	Vero	(100.0	--	09/14/87
	JE	0	0	--	Vero	(100.0	--	08/19/87
	SF	0	0	--	Vero	(100.0	--	09/14/87
	VV	0	0	--	Vero	(32.0	--	07/30/87
	Ad	0	0	--	HEP-2	(32.0	--	07/30/87

	VSV	0	0	--	L929	32.0	--	07/17/87
2906	PT							
	YFV	2.3	0.77	24.68	Vero	320.0	12.96	09/14/87
	JE	0	0	--	Vero	100.0	--	08/19/87
	SF	2.1	0.7	24.82	Vero	100.0	4.03	09/14/87
	VV	2.2	0.73	11.45	Vero	100.0	8.7	07/30/87
	Ad	0.6	0.2	57.02	HEP-2	32.0	0.56	07/30/87
	VSV	2.1	0.7	7.8	L929	100.0	12.81	07/17/87
	VSV	2.6	0.87	8.86	L929	100.0	11.29	07/28/87
	***VSV	--	--	1.36	L929	10.0	7.38	09/23/87
2907	PT							
	YFV	0.75	0.25	199.9	Vero	320.0	1.6	09/14/87
	JE	0	0	--	Vero	100.0	--	08/19/87
	SF	2.82	0.94	16.4	Vero	320.0	19.5	09/14/87
	VV	0.05	0.017	--	Vero	100.0	--	07/30/87
	Ad	0.75	0.25	17.77	HEP-2	32.0	1.8	07/30/87
	VSV	0.4	0.13	23.92	L929	32.0	1.3	07/17/87
2908	PT	0.3	1.0	100.0	Vero	100.0	1.0	11/12/87
	YFV	0	0	--	Vero	100.0	--	09/16/87
	JE	0	0	--	Vero	32.0	--	08/19/87
	SF	0.55	0.18	59.54	Vero	32.0	0.54	09/16/87
	VV	0.25	0.083	--	Vero	100.0	--	07/30/87
	Ad	0.35	0.12	--	HEP-2	100.0	--	07/30/87
	VSV	0.05	0.017	--	L929	100.0	--	07/17/87
2909	PT	0	0	--	Vero	100.0	--	11/12/87
	YFV	0	0	--	Vero	320.0	--	09/16/87
	JE	0	0	--	Vero	100.0	--	08/19/87
	SF	0.55	0.18	200.5	Vero	32.0	0.16	09/16/87
	VV	0	0	--	Vero	320.0	--	07/30/87
	Ad	0.95	0.32	135.9	HEP-2	320.0	2.35	07/30/87
	VSV	0	0	--	L929	320.0	--	07/17/87
2910	PT	0	0	--	Vero	100.0	--	11/12/87
	YFV	0	0	--	Vero	32.0	--	09/16/87
	JE	0	0	--	Vero	100.0	--	08/19/87
	SF	0	0	--	Vero	32.0	--	09/16/87
	VV	0	0	--	Vero	320.0	--	07/30/87
	Ad	0.3	0.1	--	HEP-2	320.0	--	07/30/87
	VSV	0	0	--	L929	320.0	--	07/17/87
2911	PT							
	YFV	0	0	--	Vero	100.0	--	09/16/87
	JE	0	0	--	Vero	320.0	--	08/19/87
	SF	0.15	0.005	--	Vero	320.0	--	09/16/87
	VV	6.2	2.07	1.03	Vero	320.0	309.95	07/30/87
	VV	5.8	1.93	1.77	Vero	320.0	180.8	08/27/87
	Ad	0.3	0.1	--	HEP-2	320.0	--	07/30/87
	VSV	0	0	--	L929	320.0	--	07/17/87
2912	PT							
	YFV	0	0	--	Vero	320.0	--	09/16/87
	JE	0	0	--	Vero	320.0	--	08/21/87
	SF	0	0	--	Vero	100.0	--	09/16/87
	VV	5.9	1.97	1.45	Vero	320.0	220.8	07/30/87
	VV	5.8	1.93	1.77	Vero	320.0	180.8	08/27/87
	Ad	0	0	--	HEP-2	100.0	--	07/30/87

	VV	0	0	--	Vero	1.0	--	08/13/87
	Ad	0	0	--	HEP-2	1.0	--	08/13/87
	VSV	0	0	--	L929	10.0	--	07/21/87
2937	PT							
	YFV	0.05	0.02	--	Vero	320.0	--	09/23/87
	JE	0	0	--	Vero	100.0	--	08/26/87
	SF	0	0	--	Vero	100.0	--	09/23/87
	VSV	0	0	--	L929	320.0	--	07/28/87
2938	PT							
	YFV	0	0	--	Vero	100.0	--	09/23/87
	JE	0	0	--	Vero	100.0	--	08/26/87
	SF	0.34	0.11	--	Vero	100.0	--	09/23/87
	VSV	0	0	--	L929	10.0	--	07/28/87
2939	PT							
	YFV	0	0	--	Vero	100.0	--	09/23/87
	JE	0	0	--	Vero	320.0	--	08/26/87
	SF	1.0	0.33	73.46	Vero	32.0	0.44	09/23/87
	VV	0	0	--	Vero	320.0	--	08/06/87
	Ad	0	0	--	HEP-2	320.0	--	08/06/87
	VSV	0	0	--	L929	320.0	--	07/28/87
2940	PT							
	YFV	0.4	0.13	--	Vero	32.0	--	09/23/87
	JE	0.2	0.07	--	Vero	100.0	--	08/26/87
	SF	0.4	0.13	222.5	Vero	32.0	0.14	09/23/87
	VV	0	0	--	Vero	320.0	--	08/06/87
	Ad	0	0	--	HEP-2	100.0	--	08/06/87
	VSV	0	0	--	L929	320.0	--	07/28/87
2941	PT							
	YFV	0	0	--	Vero	32.0	--	10/21/87
	YFV	0.2	0.05	--	Vero	10.0	--	09/24/87
	JE	0	0	--	Vero	32.0	--	08/26/87
	SF	0	0	--	Vero	32.0	--	09/24/87
	VV	0.65	0.22	--	Vero	100.0	--	08/06/87
	Ad	0.4	0.13	--	HEP-2	100.0	--	08/06/87
	VSV	0	0	--	L929	100.0	--	07/21/87
2942	PT							
	YFV	0.2	0.05	--	Vero	3.2	--	09/24/87
	JE	0.2	0.07	--	Vero	32.0	--	08/26/87
	SF	0	0	--	Vero	3.2	--	09/24/87
	VV	0.7	0.23	64.15	Vero	100.0	1.56	08/06/87
	Ad	0.2	0.07	--	HEP-2	32.0	--	08/06/87
	VSV	0	0	--	L929	100.0	--	07/21/87
2943	PT							
	YFV	0	0	--	Vero	10.0	--	09/24/87
	JE	0.05	0.02	--	Vero	320.0	--	08/26/87
	SF	0	0	--	Vero	32.0	--	09/24/87
	VV	1.4	0.47	244.0	Vero	320.0	1.31	08/06/87
	Ad	0.6	0.2	--	HEP-2	320.0	--	08/06/87
	VSV	0	0	--	L929	100.0	--	07/21/87
2944	PT							
	YFV	0	0	--	Vero	3.2	--	09/24/87
	JE	0.9	0.3	40.69	Vero	32.0	0.79	08/26/87
	SF	0	0	--	Vero	3.2	--	09/24/87

	VV	0.7	0.23	98.02	Vero	100.0	1.02	08/06/87
	Ad	(0.2	(0.07	--	HEp-2	(32.0	--	08/06/87
	VSV	0	0	--	L929	32.0	--	07/21/87
2945	PT							
	JE	0	0	--	Vero	100.0	--	08/28/87
	VSV							
2946	PT							
	JE	>0.1	>0.03	--	Vero	>320.0	--	08/28/87
	VV	1.2	0.4	57.87	Vero	100.0	1.73	08/06/87
	Ad	(0.4	(0.13	--	HEp-2	(100.0	--	08/06/87
	VSV	0	0	--	L929	1.0	--	07/21/87
2947	PT							
	JE	0	0	--	Vero	100.0	--	08/28/87
	VV	0	0	--	Vero	(100.0	--	08/06/87
	Ad	(0.2	(0.07	--	HEp-2	(100.0	--	08/06/87
	VSV	0	0	--	L929	100.0	--	07/21/87
2948	PT							
	JE	0	0	--	Vero	100.0	--	08/26/87
	VV	0	0	--	Vero	32.0	--	08/06/87
	Ad	0	0	--	HEp-2	(100.0	--	08/06/87
	VSV	0	0	--	L929	100.0	--	07/21/87
2949	PT	0	0	--	Vero	10.320	--	10/28/87
	JE	0	0	--	Vero	10.0	--	08/31/87
	VV	0	0	--	Vero	(10.0	--	08/06/87
	Ad	0	0	--	HEp-2	1.0	--	08/06/87
	VSV	0	0	--	L929	1.0	--	07/21/87
2950	PT	0	0	--	Vero	10.0	--	10/28/87
	YFV	0	0	--	Vero	1.0	--	09/28/87
	JE	0	0	--	Vero	320.0	--	08/31/87
	SF	0.35	0.12	0.922	Vero	10.32	10.35	09/28/87
	VSV	0	0	--	L929	10.0	--	10/13/87
2951	PT	0	0	--	Vero	100.0	--	10/21/87
	YFV	0.5	0.2	--	Vero	100.0	--	09/28/87
	JE	0	0	--	Vero	10.0	--	08/31/87
	SF	2.1	0.7	10.38	Vero	32.0	3.08	09/28/87
	VV	0.1	0.03	--	Vero	32.0	--	08/06/87
	Ad	0	0	--	HEp-2	10.0	--	08/06/87
	VSV	0	0	--	L929	100.0	--	07/21/87
C-3-deaza-								
Adc	VSV	2.8	0.93	3.14	L929	10.0	3.19	07/10/87
	VSV	3.0	1.0	2.7	L929	10.0	3.71	07/14/87
	VSV	3.95	1.32	1.68	L929	10.0	5.95	07/17/87
	VSV	2.95	0.98	1.69	L929	3.2	1.9	07/21/87
	VSV	3.05	1.02	2.98	L929	10.0	3.36	07/28/87
	***VSV	--	--	1.93	L929	32.0	16.6	09/23/87
	VSV	4.10	1.37	1.18	L929	10.0	8.47	10/13/87
	VSV	4.2	1.4	1.79	L929	32.0	17.9	11/06/87
Ara-A	VV	2.7	0.9	0.67	Vero	3.2	4.8	07/09/87
	VV	2.8	0.93	1.5	Vero	10.0	6.6	07/16/87
	VV	2.65	0.88	1.2	Vero	3.2	2.6	07/30/87
	VV	3.1	1.03	0.92	Vero	10.0	10.83	08/06/87

	VV	2.35	0.78	1.14	Vero	3.2	2.82	08/13/87
	VV	3.2	1.07	1.35	Vero	10.0	7.38	08/27/87
	VV	2.8	0.93	0.71	Vero	3.2	4.51	09/04/87
	VV	2.4	0.8	2.4	Vero	10.0	4.19	09/24/87
	VV	3.5	1.2	0.64	Vero	10.0	15.7	09/24/87
	VV	3.0	1.0	1.00	Vero	10.0	9.99	09/24/87
	VV	3.2	1.1	0.88	Vero	10.0	11.4	09/24/87
	VV	3.5	1.2	0.56	Vero	10.0	17.9	09/24/87
	VV	3.0	1.0	3.26	L329	32.0	9.8	10/22/87
Ribavirin	PT	1.50	0.50	27.48	Vero	100.0	2.67	09/24/87
	PT	0.90	0.30	46.78	Vero	100.0	2.14	09/28/87
	PT	1.25	0.42	28.51	Vero	100.0	3.51	10/21/87
	PT	1.20	0.40	9.04	Vero	10.0	1.11	10/28/87
	PT	1.45	0.48	20.08	Vero	100.0	4.98	10/28/87
	PT	0.90	0.30	21.70	Vero	32.0	1.47	11/11/87
	PT	0.80	0.27	26.69	Vero	32.0	1.20	11/12/87
	PT	1.00	0.33	16.30	Vero	32.0	1.96	11/17/87
	SF	2.0	0.67	15.9	Vero	100.0	6.28	09/01/87
	SF	2.1	0.7	14.7	Vero	100.0	6.79	09/02/87
	SF	2.59	0.86	4.09	Vero	32.0	7.82	09/03/87
	SF	2.4	0.8	5.65	Vero	32.0	5.66	09/04/87
	SF	2.1	0.7	7.79	Vero	32.0	4.11	09/08/87
	SF	2.8	0.9	7.14	Vero	100.0	14.0	09/09/87
	SF	2.1	0.7	7.84	Vero	32.0	4.08	09/10/87
	SF	2.8	0.9	7.14	Vero	100.0	14.0	09/14/87
	SF	2.3	0.8	11.8	Vero	100.0	8.47	09/16/87
	SF	2.1	0.7	7.79	Vero	32.0	4.11	09/17/87
	SF	3.0	1.0	7.42	Vero	100.0	13.48	09/18/87
	SF	2.6	0.9	8.81	Vero	100.0	11.35	09/23/87
	SF	2.4	0.8	6.43	Vero	32.0	4.98	09/24/87
	SF	3.10	1.03	5.37	Vero	100.0	18.62	09/28/87
	Ad	2.25	0.75	15.6	HEp-2	100.0	6.4	07/09/87
	Ad	2.25	0.75	16.02	HEp-2	100.0	6.2	07/16/87
	Ad	2.1	0.7	20.96	HEp-2	100.0	4.77	07/30/87
	Ad	2.05	0.68	24.24	HEp-2	100.0	4.13	08/06/87
	Ad	1.8	0.6	11.23	HEp-2	32.0	2.85	08/13/87
	Ad	1.4	0.47	50.5	HEp-2	100.0	1.98	09/04/87
	Ad	1.3	0.4	63.4	HEp-2	100.0	1.6	09/24/87
	Ad	1.2	0.4	63.3	HEp-2	100.0	1.6	09/24/87
	Ad	1.3	0.4	56.6	HEp-2	100.0	1.8	09/24/87
	Ad	1.2	0.4	63.3	HEp-2	100.0	1.6	09/24/87
	Ad	1.4	0.5	50.9	HEp-2	100.0	2.0	09/24/87
	VSV	1.3	0.43	53.7	L329	100.0	1.86	10/13/87
	VSV	1.1	0.37	77.9	L329	10.0	0.13	11/06/87
Selenazole	PT	1.35	0.45	11.72	Vero	10.0	0.85	09/28/87
	PT	1.05	0.35	16.00	Vero	10.0	0.63	10/21/87
	PT	0.75	0.25	42.03	Vero	3.2	0.08	10/28/87
	PT	0.67	0.22	221.0	Vero	10.0	0.05	10/28/87
	PT	1.20	0.40	12.83	Vero	1.0	0.08	11/11/87
	PT	0.90	0.30	14.84	Vero	3.2	0.22	11/12/87
	PT	1.00	0.33	11.65	Vero	1.0	0.09	11/17/87
	YFV	2.4	0.8	1.79	Vero	3.2	1.79	08/31/87
	YFV	2.4	0.8	1.79	Vero	1.0	0.56	09/01/87
	YFV	2.4	0.8	2.31	Vero	1.0	0.43	09/02/87

YFV	2.1	0.7	1.79	Vero	1.0	0.56	09/03/87
YFV	2.4	0.8	1.79	Vero	3.2	1.79	09/04/87
YFV	2.5	0.8	1.59	Vero	1.0	0.63	09/08/87
YFV	2.5	0.8	1.70	Vero	1.0	0.59	09/09/87
YFV	1.9	0.6	5.37	Vero	1.0	0.19	09/10/87
YFV	2.0	0.7	4.26	Vero	1.0	0.24	09/14/87
YFV	2.2	0.7	1.74	Vero	1.0	0.58	09/16/87
YFV	1.8	0.6	5.65	Vero	3.2	0.57	09/17/87
YFV	1.9	0.6	5.05	Vero	3.2	0.63	09/18/87
YFV	2.5	0.8	1.70	Vero	1.0	0.59	09/23/87
YFV	2.4	0.8	2.23	Vero	3.2	1.44	09/24/87
YFV	2.1	0.7	3.77	Vero	1.0	0.27	09/28/87
JE	2.15	0.73	1.3	Vero	3.2	2.47	08/11/87
JE	2.0	0.67	2.86	Vero	3.2	1.12	08/11/87
JE	2.0	0.67	2.36	Vero	3.2	1.35	08/13/87
JE	2.45	0.82	2.0	Vero	3.2	1.6	08/14/87
JE	2.25	0.75	2.6	Vero	3.2	1.22	08/14/87
JE	2.3	0.77	2.05	Vero	3.2	1.56	08/17/87
JE	1.7	0.57	3.87	Vero	3.2	0.83	08/18/87
JE	2.1	0.7	1.61	Vero	3.2	1.99	08/19/87
JE	2.25	0.75	2.8	Vero	3.2	1.14	08/19/87
JE	2.15	0.72	1.65	Vero	3.2	1.94	08/21/87
JE	3.3	1.1	0.8	Vero	3.2	3.94	08/24/87
JE	2.65	0.88	1.57	Vero	3.2	2.04	08/25/87
JE	2.09	0.7	2.86	Vero	3.2	1.12	08/26/87
JE	2.60	0.87	0.995	Vero	3.2	3.22	08/26/87
JE	3.9	1.3	0.26	Vero	1.0	3.8	08/28/87
JE	2.1	0.7	4.5	Vero	10.0	2.22	08/31/87
JE	1.69	0.57	5.9	Vero	10.0	1.7	09/03/87
VV	2.15	0.72	14.2	Vero	10.0	0.7	07/09/87
VV	2.5	0.8	10.91	Vero	32.0	2.9	07/16/87
VV	2.2	0.73	14.91	Vero	10.0	0.67	07/30/87
VV	1.5	0.5	27.16	Vero	10.0	0.37	08/06/87
VV	1.95	0.65	17.88	Vero	10.0	0.56	08/13/87
VV	1.85	0.62	31.91	Vero	32.0	1.0	08/27/87
VV	1.9	0.63	10.0	Vero	32.0	3.2	09/04/87
VV	1.6	0.5	38.2	Vero	32.0	0.8	09/24/87
VV	1.7	0.6	38.5	Vero	32.0	0.8	09/24/87
VV	1.8	0.6	20.8	Vero	32.0	1.5	09/24/87
VV	1.7	0.6	27.2	Vero	32.0	1.2	09/24/87
VV	1.6	0.5	22.8	Vero	32.0	1.4	09/24/87
Ad	1.7	0.57	15.05	HEp-2	32.0	2.13	07/09/87
Ad	1.75	0.58	14.22	HEp-2	100.0	7.03	07/16/87
Ad	1.4	0.47	33.28	HEp-2	32.0	0.6	07/30/87
Ad	1.3	0.43	26.38	HEp-2	32.0	1.899	08/06/87
Ad	1.45	0.48	13.55	HEp-2	32.0	2.36	08/13/87
Ad	1.1	0.37	46.78	HEp-2	100.0	2.14	09/04/87
Ad	1.1	0.4	100.0	HEp-2	32.0	0.3	09/24/87
Ad	0.9	0.3	100.0	HEp-2	32.0	0.3	09/24/87
Ad	0.8	0.3	157.3	HEp-2	32.0	0.3	09/24/87
Ad	0.9	0.3	133.2	HEp-2	32.0	0.2	09/24/87
Ad	0.9	0.3	110.0	HEp-2	32.0	0.3	09/24/87

VR* = Virus Rating calculated according to the method of Sidwell and Huffman (Appl. Microbiol. 22: 797-801, 1971).

**IMMUNE MODULATOR (CELLS WERE PRETREATED WITH DRUG 24 HRS BEFORE ADDITION OF VIRUS).

***PLAQUE REDUCTION ASSAY

UPDATED:11/30/87

SHIPMENT NO.27 (Filename AVS1.27)

AVS NO.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
206	(PIC & VEE IN VIVO)							
646	(PIC & VEE IN VIVO)							
1159	PT	0.50	0.17	20.08	Vero	10.320	0.02	10/28/87
	YFV	1.0	0.3	21.70	Vero	32.0	1.47	09/28/87
	JE	0	0	--	Vero	>320.0	--	09/08/87
	SF	1.54	0.51	14.46	Vero	32.0	2.21	09/28/87
	VV	1.45	0.48	22.19	Vero	100.0	4.51	08/13/87
	Ad	1.2	0.4	18.06	HEP2	10.0	0.55	08/13/87
	VSV	1.9	0.63	15.95	L929	100.0	6.27	07/28/87
	VSV	2.6	0.87	8.86	L929	100.0	11.29	10/13/87
	**VSV	N/A	N/A	10.7	L929	32.0	2.99	11/04/87
1210	PT	0	0	--	Vero	320.0	--	08/28/87
	PT	0	0	--	Vero	10.320	--	10/28/87
	YFV	0.4	0.12	270.9	Vero	320.0	1.18	09/28/87
	JE	0.35	0.13	--	Vero	<320.0	--	10/01/87
	SF	2.90	0.97	27.93	Vero	320.0	11.46	09/28/87
	VV	0.05	0.02	--	Vero	100.0	--	08/20/87
	Ad	1.1	0.37	19.93	HEP2	<100.0	5.02	08/20/87
1211	PT	0	0	--	Vero	>320.0	--	08/28/87
	PT	0.38	0.13	253.5	Vero	320.0	1.26	10/28/87
	YFV	0	0	--	Vero	32.0	--	09/28/87
	JE	>0.30	>0.10	--	Vero	>320.0	--	10/01/87
	SF	1.34	0.45	13.27	Vero	32.0	2.41	09/28/87
	VV	1.5	0.5	62.1	Vero	320.0	5.15	08/20/87
	Ad	1.3	0.43	4.9	HEP2	<32.0	6.52	08/20/87
1212	PT	>0.4	>0.13	--	Vero	>320.0	--	08/28/87
	PT	1.30	0.43	63.36	Vero	320.0	5.05	10/28/87
	YFV	0.3	0.08	--	Vero	10.0	--	09/29/87
	JE	0	0	--	Vero	>320.0	--	09/08/87
	SF	1.95	0.65	14.19	Vero	32.0	2.25	09/29/87
	VV	0.15	0.05	--	Vero	100.0	--	08/13/87
	Ad	0.9	0.3	24.64	HEP2	<100.0	4.06	08/13/87
	VSV	0	0	--	L929	<320.0	--	07/28/87
1213	PT	0.35	0.12	270.9	Vero	320.0	1.18	08/28/87
	PT	0	0	--	Vero	>320.0	--	10/29/87
	YFV	1.05	0.35	77.85	Vero	100.0	1.28	09/29/87
	JE	>0.8	>0.27	277.2	Vero	>320.0	>1.15	09/08/87
	SF	2.0	0.67	53.71	Vero	320.0	5.96	09/29/87
	VV	0.5	0.17	--	Vero	<320.0	--	08/13/87
	Ad	0.55	0.18	69.88	HEP2	100.0	1.43	08/13/87
	VSV	1.4	0.47	42.55	L929	1.0	0.024	07/28/87
1215	PT	0.95	0.32	69.2	Vero	100.0	1.45	08/23/87
	PT	0	0	--	Vero	>320.0	--	10/29/87
	YFV	0.6	0.2	320.0	Vero	320.0	1.0	09/29/87
	JE	0.25	0.08	--	Vero	320.0	--	09/08/87
	SF	1.45	0.48	65.93	Vero	100.0	1.52	09/29/87
	VV	0.65	0.22	242.7	Vero	320.0	1.32	08/13/87

B-178	Ad	1.1	0.37	62.92	HEP2	(320.0	5.09	08/13/87
	VSV	0.4	0.13	--	L929	(320.0	--	07/28/87
1234	PT	0	0	--	Vera	)320.0	--	08/28/87
	PT	0	0	--	Vera	)320.0	--	10/29/87
	YFV	0	0	--	Vera	100.0	--	09/29/87
	JE	0	0	--	Vera	)320.0	--	10/01/87
	SF	0	0	--	Vera	320.0	--	09/29/87
	VV	0	0	--	Vera	320.0	--	08/20/87
	Ad	0.35	0.12	100.0	HEP2	100.0	1.0	08/20/87
1915	PT	)0.1	)0.03	--	Vera	)320.0	--	08/28/87
	PT	0	0	--	Vera	320.0	--	10/29/87
	YFV	0.3	0.1	--	Vera	100.0	--	09/29/87
	JE	0	0	--	Vera	)320.0	--	09/08/87
	SF	1.05	0.35	26.19	Vera	32.0	1.22	09/29/87
	VV	0.7	0.23	320.0	Vera	320.0	1.0	08/13/87
	Ad	0.7	0.23	31.95	HEP2	(100.0	3.13	08/13/87
	VSV	0	0	--	L929	100.0	--	07/28/87
1970	PT	)0.1	)0.03	--	Vera	)320.0	--	08/28/87
	PT	0	0	--	Vera	)320.0	--	10/29/87
	YFV	0	0	--	Vera	)320.0	--	09/30/87
	JE	0.3	0.1	32.0	Vera	32.0	1.0	09/09/87
	SF	0	0	--	Vera	)320.0	--	07/30/87
	VV	0	0	--	Vera	32.0	--	08/13/87
	Ad	0.3	0.1	--	HEP2	(10.0	--	08/13/87
	VSV	0.6	0.2	17.88	L929	32.0	1.79	07/28/87
1976	PT	0	0	--	Vera	)320.0	--	10/29/87
1980	PT	0	0	--	Vera	)320.0	--	10/29/87
2956	PT	0	0	--	Vera	320.0	--	08/28/87
	PT	0	0	--	Vera	1.0	--	11/02/87
	YFV	0	0	--	Vera	(320.0	--	09/30/87
	JE	0	0	--	Vera	)100.0	--	09/09/87
	SF	0	0	--	Vera	10.0	--	09/30/87
	VV	0.3	0.1	--	Vera	(320.0	--	08/13/87
	Ad	0.5	0.17	--	HEP2	100.0	--	08/13/87
	VSV	0	0	--	L929	320.0	--	07/28/87
2957	PT	0.25	0.08	--	Vera	100.0	--	08/28/87
	PT	0.2	0.07	--	Vera	32.0	--	11/02/87
	YFV	0.10	0.03	--	Vera	320.0	--	09/30/87
	JE	0	0	--	Vera	100.0	--	09/09/87
	SF	0.40	0.13	75.18	Vera	10.0	0.13	09/30/87
	VV	0	0	--	Vera	100.0	--	08/13/87
	Ad	0.7	0.23	--	HEP2	(3.2	--	08/13/87
	VSV	0	0	--	L929	100.0	--	07/28/87
2958	PT	0.1	0.03	--	Vera	32.0	--	08/28/87
	PT	0.15	0.05	--	Vera	10.0	--	11/02/87
	YFV	0.20	0.07	--	Vera	320.0	--	09/30/87
	JE	0	0	--	Vera	32.0	--	09/09/87
	SF	0.55	0.18	199.5	Vera	10.0	0.05	09/30/87
	VV	0	0	--	Vera	)32.0	--	08/13/87
	Ad	0.4	0.13	--	HEP2	(3.2	--	08/13/87
	VSV	0	0	--	L929	(320.0	--	07/31/87

2959	PT	0.6	0.2	--	Vero	32.0	--	08/31/87
	PT	0	0	--	Vero	3.2	--	11/02/87
	YFV	0	0	--	Vero	>320.0	--	09/30/87
	JE	0	0	--	Vero	32.0	--	09/10/87
	SF	0.55	0.18	225.1	Vero	3.2	0.01	09/30/87
	VV	0	0	--	Vero	100.0	--	08/13/87
	Ad	0.4	0.13	--	HEP2	(3.2	--	08/13/87
	VSV	0	0	--	L929	(100.0	--	07/31/87
2960	PT	0.15	0.05	--	Vero	32.0	--	08/31/87
	PT	0	0	--	Vero	1.0	--	11/02/87
	YFV	0.25	0.08	--	Vero	10.0	--	10/01/87
	JE	0.85	0.28	11.14	Vero	10.0	0.9	09/10/87
	SF	1.50	0.50	10.07	Vero	10.0	0.99	10/01/87
	VV	0.75	0.25	46.78	Vero	32.0	0.68	08/13/87
	Ad	1.15	0.38	44.37	HEP2	100.0	2.25	08/13/87
	VSV	0	0	--	L929	100.0	--	07/31/87
2961	PT	0.05	0.02	--	Vero	320.0	--	08/31/87
	PT	0.25	0.08	--	Vero	1.0	--	11/02/87
	YFV	0	0	--	Vero	32.0	--	10/01/87
	JE	0	0	--	Vero	100.0	--	09/10/87
	SF	0.35	0.12	84.95	Vero	32.0	0.38	10/01/87
	VV							
	Ad							
	VSV	0	0	--	L929	100.0	--	07/31/87
2962	PT	0.52	0.17	290.9	Vero	320.0	1.1	08/31/87
	PT	0	0	--	Vero	32.0	--	11/02/87
	YFV	0	0	--	Vero	320.0	--	10/01/87
	JE	0	0	--	Vero	>320.0	--	09/10/87
	SF							
	VV	0	0	--	Vero	>320.0	--	08/13/87
	Ad	>0.2	>0.07	--	HEP2	>320.0	--	08/13/87
	VSV	0	0	--	L929	>320.0	--	07/31/87
2963	PT	0.05	0.02	--	Vero	32.0	--	08/31/87
	PT	0.2	0.07	--	Vero	32.0	--	11/04/87
	JE	0	0	--	Vero	100.0	--	09/10/87
	VV	0	0	--	Vero	320.0	--	08/13/87
	Ad	0	0	--	HEP2	>320.0	--	08/13/87
	VSV	0	0	--	L929	>320.0	--	07/31/87
2964	PT	0.1	0.03	--	Vero	320.0	--	08/31/87
	PT	0.45	0.15	--	Vero	320.0	--	11/04/87
	YFV	0.15	0.05	--	Vero	320.0	--	10/01/87
	JE	0	0	--	Vero	(320.0	--	09/11/87
	SF	0	0	--	Vero	100.0	--	10/01/87
	VV	2.3	0.77	20.45	Vero	100.0	4.89	08/20/87
	Ad	>1.2	>0.4	100.0	HEP2	>320.0	>3.2	08/20/87
	VSV	0	0	--	L929	320.0	--	07/31/87
2965	PT	0	0	--	Vero	(320.0	--	08/31/87
	PT	0	0	--	Vero	10.0	--	11/04/87
	YFV	0	0	--	Vero	320.0	--	10/02/87
	JE	0	0	--	Vero	32.0	--	09/11/87
	SF	0	0	--	Vero	100.0	--	10/02/87
	VV	0.8	0.27	31.41	Vero	(100.0	3.18	08/20/87
	Ad	0.5	0.17	--	HEP2	(320.0	--	08/20/87
	VSV	0	0	--	L929	100.0	--	07/31/87

2966	PT	0	0	--	Verc	(320.0	--	08/31/87
	PT	0.15	0.05	--	Verc	10.32	--	11/04/87
	YFV	0	0	--	Verc	>320.0	--	10/02/87
	JE	0	0	--	Verc	(100.0	--	09/11/87
	SF	0.05	0.02	--	Verc	10.32	--	10/02/87
	VV	2.2	0.73	22.66	Verc	100.0	4.41	08/13/87
	Ad	0.15	0.05	--	HEP2	3.2	--	08/13/87
	VSV	0	0	--	L929	(320.0	--	07/31/87
2967	PT	0.1	0.03	--	Verc	320.0	--	08/31/87
	PT	0.39	0.13	--	Verc	100.0	--	11/04/87
	YFV	0	0	--	Verc	320.0	--	10/02/87
	JE	0	0	--	Verc	(320.0	--	09/11/87
	SF	0	0	--	Verc	100.0	--	10/02/87
	VV	1.35	0.45	--	Verc	100.0	--	08/13/87
	Ad	0	0	--	HEP2	3.2	--	08/13/87
	VSV	0	0	--	L929	320.0	--	07/31/87
2968	PT	0.92	0.31	--	Verc	3.2	--	11/04/87
	YFV							
	JE	0	0	--	Verc	(32.0	--	09/11/87
	SF							
	VV	0	0	--	Verc	100.0	--	09/04/87
	Ad	0	0	--	HEP-2	3.2	--	09/04/87
VSV	0.35	0.12	--	L929	32.0	--	08/21/87	
2969	PT	0.1	0.03	--	Verc	320.0	--	08/31/87
	PT	0	0	--	Verc	3.2	--	11/04/87
	YFV	0	0	--	Verc	>320.0	--	10/02/87
	JE	0	0	--	Verc	320.0	--	09/14/87
	SF	0	0	--	Verc	32.0	--	10/02/87
	VV	2.0	0.67	--	Verc	100.0	--	08/13/87
	Ad	0	0	--	HEP2	(0.32	--	08/13/87
	Ad	0.2	0.07	--	HEP2	(1.0	--	08/27/87
	VSV	0	0	--	L929	100.0	--	07/31/87
2970	PT	0.2	0.07	--	Verc	100.0	--	08/31/87
	PT	0	0	--	Verc	>320.0	--	11/05/87
	YFV	0	0	--	Verc	320.0	--	10/02/87
	JE	0	0	--	Verc	100.0	--	09/14/87
	SF	1.0	0.33	154.1	Verc	32.0	0.21	10/02/87
	VV	1.65	0.55	--	Verc	100.0	--	08/13/87
	Ad	0	0	--	HEP2	(1.0	--	08/13/87
	VSV	0	0	--	L929	320.0	--	07/31/87
2971	PT	0	0	--	Verc	(100.0	--	09/01/87
	PT	0	0	--	Verc	100.0	--	11/05/87
	JE	0	0	--	Verc	100.0	--	09/14/87
	SF	0	0	--	Verc	32.0	--	10/30/87
	VV	0	0	--	Verc	32.0	--	08/13/87
	Ad	0.3	0.1	--	HEP2	(32.0	--	08/13/87
	VSV	0	0	--	L929	32.0	--	07/31/87
2972	PT	0	0	--	Verc	10.0	--	09/01/87
	PT	0	0	--	Verc	1.0	--	11/05/87
	JE	0	0	--	Verc	(32.0	--	09/14/87
	SF	0	0	--	Verc	32.0	--	10/30/87
	VV	0.6	0.2	20.05	Verc	32.0	1.6	08/13/87
	Ad	0.2	0.07	--	HEP2	10.0	--	08/13/87

	VSV	0	0	--	L929	<100.0	--	07/31/87
2973	PT	0	0	--	Vera	0.32	--	09/01/87
	PT	0	0	--	Vera	10.32	--	11/05/87
	JE	0	0	--	Vera	100.0	--	09/14/87
	SF	0.1	0.03	--	Vera	100.0	--	10/30/87
	VV	0	0	--	Vera	320.0	--	08/20/87
	Ad	0.35	0.12	--	HEP2	32.0	--	08/20/87
	VSV	0	0	--	L929	100.0	--	07/31/87
2974	PT	0	0	--	Vera	>320.0	--	09/01/87
	PT	0	0	--	Vera	100.0	--	11/05/87
	JE	0	0	--	Vera	>320.0	--	09/15/87
	SF	0	0	--	Vera	100.0	--	10/30/87
	VV	0	0	--	Vera	100.0	--	08/20/87
	Ad	0.45	0.15	--	HEP2	10.0	--	08/20/87
	VSV	0	0	--	L929	>320.0	--	07/31/87
2975	PT	0	0	--	Vera	320.0	--	09/01/87
	PT	0	0	--	Vera	320.0	--	11/05/87
	JE	0	0	--	Vera	>320.0	--	09/15/87
	SF	0	0	--	Vera	100.0	--	10/30/87
	VV	0.3	0.1	320.0	Vera	320.0	1.0	08/20/87
	Ad	>0.6	>0.2	320.0	HEP2	>320.0	>1.0	08/20/87
	VSV	0	0	--	L929	320.0	--	07/31/87
2976	PT	0	0	--	Vera	>320.0	--	09/01/87
	JE	0	0	--	Vera	>320.0	--	09/15/87
	SF	0	0	--	Vera	32.0	--	11/02/87
	VV	>0.3	>0.1	--	Vera	>320.0	--	08/20/87
	Ad	0.65	0.22	199.5	HEP2	320.0	1.6	08/20/87
	VSV	0	0	--	L929	>320.0	--	08/04/87
2977	PT	0	0	--	Vera	32.0	--	11/11/87
2981	PT	0	0	--	Vera	100.0	--	09/01/87
	PT	0	0	--	Vera	100.0	--	11/11/87
	JE	0	0	--	Vera	>320.0	--	09/15/87
	SF	0	0	--	Vera	100.0	--	11/02/87
	VV	0	0	--	Vera	<320.0	--	08/20/87
	Ad	1.05	0.35	53.68	HEP2	100.0	1.86	08/20/87
	VSV	0	0	--	L929	320.0	--	08/04/87
2982	PT	0	0	--	Vera	32.0	--	09/01/87
	PT	0	0	--	Vera	1.0	--	11/11/87
	JE	0	0	--	Vera	100.0	--	09/15/87
	SF	0	0	--	Vera	32.0	--	11/02/87
	VV	0	0	--	Vera	32.0	--	08/20/87
	Ad	0.3	0.1	--	HEP2	100.0	--	08/20/87
	VSV	0	0	--	L929	32.0	--	08/04/87
2983	PT	0	0	--	Vera	320.0	--	09/01/87
	PT	0	0	--	Vera	100.0	--	11/11/87
	JE	0	0	--	Vera	>320.0	--	09/30/87
	SF	0	0	--	Vera	>320.0	--	11/02/87
	VV	>0.1	>0.03	--	Vera	>320.0	--	08/20/87
	Ad	0.25	0.08	--	HEP2	320.0	--	08/20/87
	VSV	0	0	--	L929	>320.0	--	08/04/87
2984	PT	0	0	--	Vera	10.0	--	09/01/87

	PT	0	0	--	Vero	3.2	--	11/11/87
	JE	0	0	--	Vero	100.0	--	09/30/87
	SF	0	0	--	Vero	10.0	--	11/02/87
	VV	0	0	--	Vero	32.0	--	08/20/87
	Ad	0.6	0.2	--	HEP2	32.0	--	08/20/87
	VSV	0	0	--	L929	100.0	--	08/04/87
2985	PT	0	0	--	Vero	100.0	--	09/01/87
	PT	0	0	--	Vero	320.0	--	11/11/87
	JE	0.3	0.1	290.9	Vero	320.0	1.10	09/30/87
	SF	0	0	--	Vero	100.0	--	11/03/87
	VV	0	0	--	Vero	(320.0	--	08/20/87
	Ad	>1.2	>0.4	100.0	HEP2	>320.0	>3.2	08/20/87
	VSV	0	0	--	L929	>320.0	--	08/04/87
2986	PT	0	0	--	Vero	>320.0	--	09/03/87
	PT	0	0	--	Vero	10.32	--	11/11/87
	JE	0	0	--	Vero	>320.0	--	09/30/87
	SF	0.07	0.02	--	Vero	320.0	--	11/03/87
	VV	0	0	--	Vero	320.0	--	08/20/87
	Ad	1.65	0.55	100.0	HEP2	320.0	3.2	08/20/87
	VSV	0	0	--	L929	>320.0	--	08/04/87
2987	PT	0	0	--	Vero	10.0	--	09/03/87
	PT	0	0	--	Vero	100.0	--	11/12/87
	JE	0	0	--	Vero	32.0	--	10/01/87
	SF	0.9	0.3	10.17	Vero	10.0	0.98	11/03/87
	VV	0	0	--	Vero	32.0	--	08/20/87
	Ad	0	0	--	HEP2	32.0	--	08/20/87
	VSV	0	0	--	L929	32.0	--	08/04/87
2988	PT	0	0	--	Vero	100.0	--	09/03/87
	PT	0	0	--	Vero	100.0	--	11/12/87
	JE	0	0	--	Vero	(320.0	--	09/17/87
	SF	0	0	--	Vero	320.0	--	11/03/87
	VV	0.2	0.07	--	Vero	320.0	--	08/20/87
	Ad	1.0	0.33	70.88	HEP2	(320.0	4.51	08/20/87
	VSV	0	0	--	L929	(320.0	--	08/04/87
2989	PT	0.15	0.05	--	Vero	3.2	--	09/03/87
	PT	0.45	0.15	6.84	Vero	10.32	0.05	11/12/87
	JE	0	0	--	Vero	(10.0	--	09/17/87
	SF	0.40	0.13	2.39	Vero	1.0	0.42	11/03/87
	VV	0	0	--	Vero	32.0	--	08/20/87
	Ad	0	0	--	HEP2	32.0	--	08/20/87
	VSV	0	0	--	L929	10.0	--	08/04/87
2990	PT	0	0	--	Vero	>320.0	--	09/03/87
	PT	0	0	--	Vero	100.0	--	11/12/87
	JE	0	0	--	Vero	(32.0	--	09/17/87
	SF							
	VV	0.3	0.1	--	Vero	(32.0	--	08/20/87
	Ad	0.2	0.07	--	HEP2	(32.0	--	08/20/87
	VSV	0	0	--	L929	(100.0	--	08/04/87
2991	PT	0.9	0.3	2.59	Vero	(10.0	3.86	09/03/87
	PT	0.1	0.03	--	Vero	3.2	--	11/12/87
	JE	0	0	--	Vero	(10.0	--	09/17/87
	SF							
	VV	1.6	0.53	0.77	Vero	3.2	4.14	08/20/87

	Ad	0	0	--	HEP2	<3.2	--	08/20/87
	VSV	0.7	0.23	2.71	L929	<10.0	3.63	08/04/87
2992	PT	1.05	0.35	--	Vero	100.0	--	09/03/87
	PT	0.3	0.1	320.0	Vero	100.0	0.31	11/12/87
	JE	0	0	--	Vero	320.0	--	09/17/87
	SF							
	VV	2.1	0.7	33.66	Vero	320.0	9.51	08/20/87
	Ad	0.3	0.1	100.0	HEP2	100.0	1.0	08/20/87
	VSV	0	0	--	L929	>320.0	--	08/04/87
2993	PT	0	0	--	Vero	>320.0	--	09/03/87
	PT	0	0	--	Vero	320.0	--	11/12/87
	JE	0	0	--	Vero	>320.0	--	09/18/87
	SF							
	VV	0.1	0.03	--	Vero	100.0	--	08/20/87
	Ad	0.6	0.2	--	HEP2	<320.0	--	08/20/87
	VSV	0	0	--	L929	100.0	--	08/04/87
2994	PT	0	0	--	Vero	100.0	--	09/03/87
	PT	0	0	--	Vero	10.0	--	11/16/87
	JE	0.7	0.3	184.6	Vero	320.0	1.8	09/18/87
	VV	7.1	2.37	0.109	Vero	100.0	916.8	09/04/87
	VV	8.6	2.87	0.09	Vero	320.0	3564.3	09/24/87
	Ad	1.5	0.5	25.45	HEP2	100.0	3.93	08/20/87
	VSV	0	0	--	L929	32.0	--	08/04/87
2995	PT	0	0	--	Vero	>320.0	--	09/03/87
	PT	0	0	--	Vero	>320.0	--	11/16/87
	YFV	0	0	--	Vero	100.0	--	11/30/87
	JE	>0.5	>0.2	--	Vero	>320.0	--	09/18/87
	VV	>5.2	>1.73	3.06	Vero	>320.0	>104.45	08/20/87
	VV	>4.5	>1.5	6.84	Vero	>320.0	>46.81	09/24/87
	Ad	>1.1	>0.37	199.5	HEP2	>320.0	>1.6	08/20/87
	VSV	0	0	--	L929	320.0	--	08/04/87
2996	PT	0	0	--	Vero	>320.0	--	09/03/87
	PT	0.05	0.02	--	Vero	32.0	--	11/16/87
	YFV	0	0	--	Vero	32.0	--	11/30/87
	JE	0	0	--	Vero	320.0	--	09/18/87
	VV	0.4	0.13	--	Vero	100.0	--	08/20/87
	Ad	0	0	--	HEP2	>320.0	--	08/20/87
	VSV	0.4	0.13	239.2	L929	320.0	1.34	08/04/87

(Filename AVS1.27)

SHIPMENT NO. 27 continued: (Filename AVS2.27)

AVS NO.	VIR	VR	VR*	ID50	CELL	MTG	TI	DATE
2997	PT	0	0	--	Verc	32.0	--	11/16/87
	KHF							
	SF	0	0	--	Verc	32.0	--	08/25/87
2998	PT	0.23	0.08	--	Verc	32.0	--	11/16/87
	KHF							
	SF	0	0	--	Verc	100.0	--	08/25/87
2999	PT	0	0	--	Verc	3.2	--	11/16/87
	KHF							
	SF	0	0	--	Verc	10.0	--	08/25/87
3000	PT	0	0	--	Verc	1.0	--	11/16/87
	KHF							
	SF	0	0	--	Verc	10.0	--	08/25/87
3001	PT	0	0	--	Verc	10.0	--	11/17/87
	KHF							
	SF	0	0	--	Verc	10.0	--	08/25/87
3002	PT	0.27	0.09	--	Verc	100.0	--	11/17/87
	KHF							
	SF	0	0	--	Verc	10.0	--	08/25/87
3003	PT	0	0	--	Verc	10.32	--	11/17/87
	KHF							
	SF	0.2	0.07	--	Verc	1.0	--	08/25/87
3004	PT	0	0	--	Verc	32.0	--	11/17/87
	KHF							
	SF	0	0	--	Verc	10.0	--	08/25/87
3005	PT	0.60	0.2	--	Verc	320.0	--	11/17/87
	KHF							
	SF	0	0	--	Verc	3.2	--	08/25/87
3006	PT	0	0	--	Verc	320.0	--	11/17/87
	KHF							
	SF	0	0	--	Verc	32.0	--	08/25/87
3007	PT	0	0	--	Verc	32.0	--	11/17/87
	KHF							
	SF	0	0	--	Verc	1.0	--	08/25/87
3008	PT	0	0	--	Verc	320.0	--	08/25/87
	KHF							
	SF	0	0	--	Verc	3.2	--	08/25/87
3009	PT	0	0	--	Verc	32.0	--	08/25/87
	PT	0	0	--	Verc	320.0	--	11/19/87
	KHF							
	SF	0	0	--	Verc	3.2	--	08/25/87

3010	PT	0	0	--	Vero	320.0	--	08/25/87
	KHF							
	SF	0	0	--	Vero	100.0	--	08/25/87
3011	PT	10.1	10.03	--	Vero	320.0	--	08/25/87
	KHF							
	SF	0	0	--	Vero	100.0	--	08/25/87
3012	PT	0	0	--	Vero	10.0	--	08/25/87
	KHF							
	SF	0.35	0.12	3.19	Vero	10.32	10.1	08/25/87
3013	PT	0	0	--	Vero	32.0	--	08/25/87
	KHF							
	SF	0	0	--	Vero	10.0	--	08/26/87
3014	PT	0	0	--	Vero	320.0	--	08/25/87
	KHF							
	SF	1.35	0.45	119.7	Vero	320.0	2.67	08/26/87
3015	PT	0	0	--	Vero	320.0	--	08/25/87
	KHF							
	SF	0	0	--	Vero	32.0	--	08/26/87
3016	PT	0	0	--	Vero	100.0	--	08/25/87
	KHF							
	SF	1.2	0.4	23.9	Vero	10.0	0.42	08/26/87
3017	PT	0	0	--	Vero	100.0	--	08/25/87
	KHF							
	SF	0.85	0.28	118.1	Vero	10.0	0.08	08/26/87
3018	PT	0	0	--	Vero	10.0	--	08/25/87
	KHF							
	SF	0.2	0.07	--	Vero	3.2	--	08/26/87
3019	PT	0.1	0.03	--	Vero	100.0	--	08/26/87
	KHF							
	SF	0.25	0.08	--	Vero	10.0	--	08/26/87
3020	PT	0.2	0.07	--	Vero	320.0	--	08/26/87
	KHF							
	SF	0.15	0.05	--	Vero	32.0	--	08/26/87
3021	PT	0.41	0.14	--	Vero	100.0	--	08/26/87
	KHF							
	SF	0.15	0.05	--	Vero	100.0	--	08/26/87
3022	PT	0.06	0.02	--	Vero	32.0	--	08/26/87
	KHF							
	SF	0.05	0.02	--	Vero	32.0	--	08/26/87
3023	PT	0.2	0.07	--	Vero	100.0	--	08/26/87
	KHF							
	SF	0.35	0.12	319.8	Vero	100.0	0.31	08/26/87
3024	PT	0.59	0.20	--	Vero	32.0	--	08/26/87
	KHF							
	SF	0.25	0.08	--	Vero	32.0	--	09/15/87

3025	PT	0.39	0.13	--	Vero	100.0	--	08/26/87
	KHF							
	SF	0.10	0.03	--	Vero	100.0	--	09/15/87
3026	PT	0.49	0.16	--	Vero	320.0	--	08/26/87
	KHF							
	SF	0	0	--	Vero	320.0	--	09/15/87
3027	PT	0	0	--	Vero	32.0	--	08/26/87
	KHF							
	SF	0.6	0.2	56.6	Vero	10.0	0.18	09/15/87
3028	PT	0.1	0.03	--	Vero	10.0	--	08/26/87
	KHF							
	SF	0	0	--	Vero	10.0	--	09/15/87
3029	PT	0	0	--	Vero	3.2	--	08/26/87
	KHF							
	SF	0.15	0.05	--	Vero	3.2	--	09/15/87
3030	PT	0	0	--	Vero	10.0	--	08/27/87
	KHF							
	SF	0.15	0.05	--	Vero	10.0	--	09/15/87
3031	PT	0	0	--	Vero	0.32	--	08/27/87
	KHF							
	SF	0	0	--	Vero	10.32	--	09/15/87
3032	PT	0.05	0.02	--	Vero	10.32	--	08/27/87
	KHF							
	SF	0	0	--	Vero	10.32	--	09/15/87
3033	PT	0	0	--	Vero	32.0	--	08/27/87
	KHF							
	SF	0.4	0.13	23.9	Vero	10.0	0.42	09/15/87
3034	PT	0	0	--	Vero	13.2	--	08/27/87
	KHF							
	SF	0	0	--	Vero	1.	--	09/15/87
Ara-A	VV	2.35	0.78	1.14	Vero	3.2	2.82	08/13/87
	VV	2.95	0.98	1.13	Vero	3.2	2.83	08/20/87
	VV	2.8	0.93	0.71	Vero	3.2	4.51	09/04/87
	VV	2.4	0.8	2.4	Vero	10.0	4.2	09/24/87
	VV	3.5	1.2	0.64	Vero	10.0	15.7	09/24/87
	VV	3.0	1.0	1.00	Vero	10.0	9.99	09/24/87
	VV	3.2	1.1	0.9	Vero	10.0	11.4	09/24/87
	VV	3.5	1.2	0.6	Vero	10.0	17.9	09/24/87
C-3-Deaza- ADG	VSV	3.05	1.02	2.98	L929	10.0	3.36	07/28/87
	VSV	3.05	1.02	2.79	L929	10.0	3.58	07/31/87
	VSV	2.95	0.98	1.68	L929	3.2	1.9	08/04/87
	VSV	2.2	0.73	4.26	L929	10.0	2.35	08/21/87
	VSV	4.1	1.37	1.18	L929	10.0	8.47	10/13/87
	**VSV	N/A	N/A	1.09	L929	32.0	2.99	11/04/87
Ribavirin	PT	1.5	0.5	24.91	Vero	100.0	4.01	08/25/87
	PT	0.9	0.3	18.36	Vero	32.0	1.74	08/26/87
	PT	1.2	0.4	31.72	Vero	100.0	3.15	08/27/87

PT	1.6	0.5	70.13	Vero	320.0	4.56	08/28/87	
PT	1.2	0.4	22.84	Vero	32.0	1.4	08/31/87	
PT	0.9	0.3	30.18	Vero	32.0	1.06	09/01/87	
PT	1.5	0.5	26.19	Vero	100.0	3.82	09/03/87	
PT	1.2	0.4	9.40	Vero	10.0	1.11	10/28/87	
PT	1.5	0.5	20.08	Vero	100.0	4.98	10/28/87	
PT	1.4	0.5	21.70	Vero	100.0	4.61	10/29/87	
PT	1.3	0.4	24.60	Vero	100.0	4.06	11/02/87	
PT	1.8	0.6	6.12	Vero	32.0	5.21	11/04/87	
PT	1.2	0.4	16.00	Vero	32.0	2.00	11/05/87	
PT	0.9	0.3	21.70	Vero	32.0	1.47	11/11/87	
PT	1.0	0.3	19.31	Vero	32.0	1.66	11/11/87	
PT	0.8	0.3	26.69	Vero	32.0	1.20	11/12/87	
PT	0.8	0.3	26.69	Vero	32.0	1.20	11/12/87	
PT	0.7	0.2	42.59	Vero	32.0	0.75	11/16/87	
PT	1.0	0.3	16.30	Vero	32.0	1.96	11/17/87	
JE	>1.45	>0.48	29.86	Vero	>100.0	>3.35	09/30/87	
JE	>1.7	>0.6	36.97	Vero	>100.0	>2.70	10/01/87	
SF	2.1	0.7	8.31	Vero	32.0	3.85	08/25/87	
SF	2.2	0.73	7.01	Vero	32.0	4.57	08/26/87	
SF	2.5	0.8	7.93	Vero	100.0	12.61	09/15/87	
SF	3.10	1.03	5.37	Vero	100.0	18.62	09/28/87	
SF	2.20	0.73	7.01	Vero	32.0	4.57	09/29/87	
SF	2.30	0.77	11.81	Vero	100.0	8.47	09/30/87	
SF	2.10	0.70	14.74	Vero	100.0	6.79	10/01/87	
SF	2.25	0.75	5.77	Vero	32.0	5.55	10/02/87	
SF	2.20	0.73	7.79	Vero	32.0	4.11	10/30/87	
SF	1.40	0.47	27.91	Vero	100.0	3.58	11/02/87	
SF	2.10	0.70	14.74	Vero	100.0	6.79	11/03/87	
Ad	1.8	0.6	11.2	HEP-2	32.0	2.85	08/13/87	
Ad	2.25	0.75	11.7	HEP-2	32.0	2.73	08/20/87	
Ad	<1.5	<0.5	41.1	HEP-2	<320.0	<7.79	08/27/87	
Ad	1.4	0.47	50.5	HEP-2	100.0	1.98	09/04/87	
VSV	1.3	0.43	53.7	L929	100.0	1.86	10/13/87	
Selenazole	PT	0.75	0.25	42.03	Vero	3.2	0.08	10/28/87
	PT	0.67	0.22	221.0	Vero	10.0	0.05	10/28/87
	PT	1.15	0.38	18.67	Vero	3.2	0.17	10/29/87
	PT	1.60	0.53	3.95	Vero	1.0	0.25	11/02/87
	PT	0.85	0.28	0.75	Vero	1.0	1.33	11/04/87
	PT	1.45	0.48	5.32	Vero	1.0	0.19	11/05/87
	PT	1.20	0.40	12.83	Vero	1.0	0.08	11/11/87
	PT	1.25	0.42	4.94	Vero	1.0	0.20	11/11/87
	PT	0.90	0.30	14.84	Vero	3.2	0.22	11/12/87
	PT	1.15	0.38	11.94	Vero	1.0	0.08	11/12/87
	PT	1.10	0.37	12.37	Vero	0.32	0.03	11/16/87
	PT	1.00	0.33	11.65	Vero	1.0	0.09	11/17/87
	YFV	2.05	0.68	3.77	Vero	1.0	0.27	09/28/87
	YFV	2.35	0.78	2.31	Vero	3.2	1.39	09/29/87
	YFV	1.80	0.60	5.65	Vero	10.0	1.77	09/30/87
	YFV	2.60	0.87	2.79	Vero	10.0	3.58	10/01/87
	YFV	2.10	0.70	4.68	Vero	10.0	2.14	10/02/87
	YFV	2.25	0.75	2.52	Vero	3.2	1.22	11/30/87
	JE	2.55	0.85	1.44	Vero	3.2	2.22	09/08/87

JE	2.3	0.77	3.03	Vero	3.2	1.06	09/09/87
JE	2.8	0.93	1.43	Vero	3.2	2.25	09/10/87
JE	1.99	0.66	3.22	Vero	3.2	1.00	09/11/87
JE	2.35	0.78	2.23	Vero	3.2	1.44	09/14/87
JE	2.39	0.8	1.58	Vero	3.2	2.03	09/15/87
JE	2.80	0.93	1.71	Vero	3.2	1.88	09/17/87
JE	3.69	1.23	0.30	Vero	3.2	10.76	09/18/87
JE	2.48	0.83	2.01	Vero	10.0	4.97	09/30/87
JE	3.10	1.03	1.57	Vero	10.0	6.39	10/01/87
SF	2.25	0.75	4.13	Vero	1.0	0.24	09/29/87
SF	1.20	0.40	17.88	Vero	3.2	0.18	09/30/87
SF	1.95	0.65	4.11	Vero	1.0	0.24	10/01/87
SF	2.05	0.68	9.58	Vero	3.2	0.33	10/02/87
SF	2.15	0.72	2.98	Vero	1.0	0.34	10/30/87
SF	1.95	0.65	4.68	Vero	3.2	0.66	11/02/87
SF	2.20	0.73	2.80	Vero	1.0	0.36	11/03/87
VV	1.95	0.65	17.88	Vero	10.0	0.56	08/13/87
VV	1.5	0.5	35.0	Vero	10.0	0.29	08/20/87
VV	1.9	0.63	10.0	Vero	32.0	3.2	09/04/87
VV	1.6	0.5	38.2	Vero	32.0	0.8	09/24/87
VV	1.7	0.6	38.5	Vero	32.0	0.8	09/24/87
VV	1.9	0.6	20.8	Vero	32.0	1.5	09/24/87
VV	1.7	0.6	27.2	Vero	32.0	1.2	09/24/87
VV	1.6	0.5	22.8	Vero	32.0	1.4	09/24/87
Ad	1.45	0.48	13.55	HEP-2	32.0	2.36	08/13/87
Ad	1.65	0.55	4.48	HEP-2	10.0	2.23	08/20/87
Ad	1.5	0.5	20.32	HEP-2	100.0	4.92	08/27/87
Ad	1.1	0.37	46.78	HEP-2	100.0	2.14	09/04/87

VR* = Virus Rating calculated according to the method of Sidwell and
Huffman (Appl. Microbiol. 22: 797-801, 1971).

** Plaque Reduction Assay.

UPDATED: 12/14/87: ADB
(Filename AVS2.27)

Shipment No. 28 (Filename AVS1,28)

AVS No.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
1019	PT							
	JE	2.5	0.8	1.34	Vero	3.2	2.39	09/21/87
	VV	3.0	1.0	3.33	Vero	10.0	3.01	08/27/87
	Ad	0	0	--	HEP-2	0.32	--	09/04/87
	VSV	2.45	0.82	0.54	L929	0.32	0.6	08/21/87
1947	PT							
	JE	0	0	--	Vero	320.0	--	09/21/87
	VV	1.5	0.5	7.77	Vero	32.0	4.12	08/27/87
	Ad	0	0	--	HEP2	32.0	--	08/27/87
	VSV	0	0	--	L929	100.0	--	08/21/87
3035	PT							
	JE	0	0	--	Vero	1.0	--	09/21/87
	VV	0	0	--	Vero	(1.0)	--	08/27/87
	Ad	0	0	--	HEP2	(1.0)	--	08/27/87
	VSV	0	0	--	L929	(1.0)	--	08/21/87
3036	PT							
	JE	0	0	--	Vero	(10.0)	--	09/21/87
	VV	1.3	0.43	5.37	Vero	10.0	1.86	08/27/87
	Ad	0	0	--	HEP2	(10.0)	--	08/27/87
	VSV	0	0	--	L929	3.2	--	08/21/87
3037	PT							
	JE	0	0	--	Vero	>320.0	--	09/21/87
	VV	0	0	--	Vero	>320.0	--	08/27/87
	Ad	0	0	--	HEP2	320.0	--	08/27/87
	VSV	0	0	--	L929	>320.0	--	08/21/87
3038	PT	1.6	0.53	1.012	Vero	10.32	10.32	09/21/87
	YFV	0.85	0.28	5.05	Vero	10.32	10.06	09/01/87
	JE	2.25	0.75	0.102	Vero	10.32	13.13	09/09/87
	SF							
	VV	1.9	0.63	3.2	Vero	0.32	0.01	09/04/87
	Ad	0	0	--	HEP-2	0.032	--	09/04/87
	VSV	2.4	0.8	0.57	L929	10.32	10.57	08/21/87
	VSV	2.9	0.97	0.25	L929	0.1	0.41	08/25/87
3039	PT							
	JE	>0.05	>0.02	--	Vero	>320.0	--	09/23/87
	VV	0	0	--	Vero	>320.0	--	08/27/87
	Ad	0	0	--	HEP2	>320.0	--	08/27/87
	VSV	0	0	--	L929	320.0	--	08/21/87
3040	PT							
	JE	0.15	0.05	--	Vero	(10.0)	--	09/23/87
	VV	0.75	0.25	56.33	Vero	100.0	1.78	08/27/87
	Ad	0.3	0.1	--	HEP2	(100.0)	--	08/27/87
	VSV	0	0	--	L929	100.0	--	08/21/87
3041	PT							
	JE	>0.35	>0.12	--	Vero	>320.0	--	09/23/87
	SF	0.3	0.1	--	Vero	32.0	--	11/11/87

	VV	0	0	--	Vero	>320.0	--	08/27/87
	Ad	0	0	--	HEP2	>320.0	--	08/27/87
	VSV	0	0	--	L929	100.0	--	08/21/87
3042	PT							
	JE	0	0	--	Vero	3.2	--	09/23/87
	VV	0.4	0.13	32.0	Vero	10.0	0.31	08/27/87
	Ad	0	0	--	HEP2	<1.0	--	08/27/87
	VSV	0.6	0.2	56.54	L929	100.0	1.77	08/25/87
3043	PT							
	JE	0	0	--	Vero	<3.2	--	09/23/87
	VV	0.25	0.08	--	Vero	10.0	--	08/27/87
	Ad	0	0	--	HEP2	<1.0	--	08/27/87
	VSV	0.35	0.12	27.09	L929	10.0	0.37	08/25/87
3044	PT							
3045	PT							
3046	PT							
3047	PT							
3048	PT							
3049	PT							
3050	PT							
3051	PT							
3052	PT							
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3056	PT							
3057	PT							
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3060	PT							
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3063	PT							
3064	PT							
3065	PT							

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3067	PT
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3070	PT
3071	PT
3072	PT
3073	PT
3074	PT
3075	PT
3076	PT
3077	PT
3078	PT
3079	PT
3080	PT
3081	PT
3082	PT
3083	PT
3084	PT
3085	PT
3086	PT
3087	PT
3088	PT
3089	PT
3090	PT
3091	PT
3092	PT
3093	PT
3094	PT
3095	PT

B-192

315

3096 PT

3097 PT

3098 PT

3099 PT

(Filename AVS1.28)

Shipment No. 28 continued: (Filename AVS2.28)

AVS No.

3100	PT
3101	PT
3102	PT
3103	PT
3104	PT
3105	PT
3106	PT
3107	PT
3108	PT
3109	PT
3110	PT
3111	PT
3112	PT
3113	PT
3114	PT
3115	PT
3116	PT
3117	PT
3118	PT
3119	PT
3120	PT
3121	PT
3122	PT
3123	PT
3124	PT
3125	PT
3126	PT

3127	PT							
3128	PT							
3129	PT							
3130	PT							
3131	PT							
3132	PT							
3133	PT							
3134	PT							
Ara-A	VV	3.2	1.07	1.35	Vero	10.0	7.38	08/27/87
	VV	2.8	0.93	0.71	Vero	3.2	4.51	09/04/87
C-3-Deaza-Ad0	VSV	2.2	0.73	4.26	L929	10.0	2.35	08/21/87
	VSV	3.05	1.02	1.99	L929	3.2	1.61	08/25/87
Ribavirin	PT	1.7	0.6	20.12	Vero	100.0	4.97	09/21/87
	SF	3.0	1.0	5.65	Vero	100.0	17.69	11/11/87
	Ad	1.5	0.5	41.06	HEP-2	320.0	7.79	08/27/87
	Ad	1.4	0.47	50.5	HEP-2	100.0	1.98	09/04/87
Selenazole	PT							
	YFV	2.4	0.8	1.79	Vero	1.0	0.56	09/01/87
	JE	2.3	0.77	3.03	Vero	3.2	1.06	09/09/87
	JE	2.4	0.8	2.21	Vero	10.0	4.52	09/21/87
	JE	2.7	0.9	1.60	Vero	10.0	6.26	09/23/87
	SF	1.3	0.4	15.9	Vero	3.2	0.2	11/11/87
	VV	1.85	0.62	31.91	Vero	32.0	1.0	08/27/87
	VV	1.9	0.63	10.0	Vero	32.0	3.2	09/04/87
	Ad	1.5	0.5	20.32	HEP-2	100.0	4.92	08/27/87
	Ad	1.1	0.37	46.78	HEP-2	100.0	2.14	09/04/87

VR* = Virus Rating calculated according to the method of Sidwell and Huffman (Appl. Microbiol. 22: 797-801, 1971).

UPDATED:09/28/87:ADB
(Filename AVS2.28)

SHIPMENT NO.29 (Filename AVS1.29)

AVS NO.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
3135	PT							
3136	PT							
3137	PT							
3138	PT							
3139	PT							
3140	PT							
3141	PT							
3142	PT							
3143	PT							
3144	PT							
3145	PT							
3146	PT							
3147	PT							
3148	PT							
3149	PT							
3150	PT							
3151	PT							
3152	PT							
3153	PT							
3154	PT							
3155	PT							
3156	PT							
3157	PT							
3158	PT							
3159	PT							
3160	PT							
3161	PT							

3162	PT
3163	PT
3164	PT
3165	PT
3166	PT
3167	PT
3168	PT
3169	PT
3170	PT
3171	PT
3172	PT
3173	PT
3174	PT
3175	PT
3176	PT
3177	PT
3178	PT
3179	PT
3180	PT
3181	PT
3182	PT
3183	PT
3184	PT
3185	PT
3186	PT
3187	PT
3188	PT
3189	PT
3190	PT
3191	PT

3192	PT
3193	PT
3194	PT
3195	PT
3196	PT
3197	PT
3198	PT
3199	PT

(Filename AVS1.29)

Shipment No.29 continued: (Filename AVS2.29)

AVS NO.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
3200	PT							
3201	PT							
3202	PT							
3203	PT							
3204	PT							
3205	PT							
3206	PT							
3207	PT							
3208	PT							
3209	PT							
3210	PT							
3211	PT							
3212	PT							
3213	PT							
3214	PT							
3215	PT							
3216	PT							
3217	PT							
3218	PT							
3219	PT							
3220	PT							
3221	PT							
3222	PT							
3223	PT							
3224	PT							
3225	PT							
3226	PT							

3227	PT							
3228	PT							
3229	PT							
3230	PT							
3231	PT							
3232	PT							
3233	PT							
3234	PT							
	JE	0	0	--	Verc	(320.0	--	10/02/87
	SF	0	0	--	Verc	)320.0	--	11/11/87
	VV	0	0	--	Verc	(100.0	--	09/04/87
	Ad	0	0	--	HEP-2	(3.2	--	09/04/87
	VSV	0	0	--	L929	32.0	--	08/25/87
3235	PT							
3236	PT							
3237	PT							
3238	PT							
3239	PT							
3240	PT							
3241	PT							
3242	PT							
3243	PT							
3244	PT							
3245	PT							
	VV	0	0	--	Verc	320.0	--	09/04/87
	Ad	)0.2	)0.07	--	HEP-2	)320.0	--	09/04/87
	VSV	0	0	--	L929	100.0	--	08/25/87
3554	PT							
	JE	0	0	--	Verc	)320.0	--	10/02/87
	VV	)0.3	)0.1	--	Verc	)320.0	--	09/04/87
	Ad	(0.1	(0.03	--	HEP-2	(320.0	--	09/04/87
	VSV	0	0	--	L929	320.0	--	08/25/87
3555	PT							
	JE	)0.08	)0.03	--	Verc	)320.0	--	10/02/87
	VV	0	0	--	Verc	320.0	--	09/04/87
	Ad	0	0	--	HEP-2	320.0	--	09/04/87
	VSV	0	0	--	L929	320.0	--	08/25/87
3602	PT							

	JE	>0.04	>0.01	--	Vero	>320.0	--	10/02/87
	VV	0.15	0.05	--	Vero	320.0	--	09/04/87
	Ad	0	0	--	HEP-2	320.0	--	09/04/87
	VSV	0	0	--	L929	320.0	--	08/25/87
3603	PT							
	VV	0	0	--	Vero	320.0	--	09/04/87
	Ad	0	0	--	HEP-2	>320.0	--	09/04/87
	VSV	0	0	--	L929	100.0	--	08/25/87
3604	PT							
	VV	0	0	--	Vero	100.0	--	09/04/87
	Ad	0	0	--	HEP-2	<100.0	--	09/04/87
	VSV	0	0	--	L929	320.0	--	08/25/87
Ara-A	VV	2.8	0.93	0.71	Vero	3.2	4.51	09/04/87
C-3-Deaza- Ado	VSV	3.05	1.02	1.99	L929	3.2	1.61	08/25/87
Ribavirin	JE	>2.2	>0.73	18.56	Vero	>100.0	>5.39	10/02/87
	SF	3.0	1.0	5.65	Vero	100.0	17.69	11/11/87
	Ad	1.4	0.47	50.5	HEP-2	100.0	1.98	09/04/87
Selenazole	JE	3.7	1.22	0.68	Vero	3.2	4.73	10/02/87
	SF	1.3	0.4	15.9	Vero	3.2	0.20	11/11/87
	VV	1.9	0.63	10.0	Vero	32.0	3.2	09/04/87
	Ad	1.1	0.37	46.78	HEP-2	100.0	2.14	09/04/87

VR* = Virus Rating calculated according to the method of Sidwell and Huffmar (Appl. Microbiol. 22: 797-801, 1971).

UPDATED:10/05/87;ADB
(Filename AVS2.29)

SHIPMENT NO. 30

AVS NO.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
351	JE ONLY							
580	PT							
	VV	0	0	--	VERO	320.0	--	09/24/87
	Ad	0.1	0.3	--	HEp-2	320.0	--	09/24/87
	VSV	0	0	--	L929	320.0	--	09/29/87
581	PT							
	VV	0	0	--	VERO	320.0	--	09/24/87
	Ad	0	0	--	HEp-2	320.0	--	09/24/87
	VSV	0	0	--	L929	10.0	--	09/29/87
582	PT							
	VV	0	0	--	VERO	>320.0	--	10/08/87
	Ad	>0.3	>0.1	--	HEp-2	>320.0	--	10/08/87
	VSV	0	0	--	L929	>320.0	--	09/29/87
583	PT							
	VV	0	0	--	VERO	>320.0	--	09/24/87
	Ad	>0.3	>0.1	--	HEp-2	>320.0	--	09/24/87
	VSV	0	0	--	L929	100.0	--	09/29/87
584	PT							
	VV	0	0	--	VERO	>320.0	--	09/24/87
	Ad	>0.1	>0.03	--	HEp-2	>320.0	--	09/24/87
	VSV	0	0	--	L929	320.0	--	09/29/87
585	PT							
	JE	0	0	--	VERO	<320.0	--	10/20/87
	VV	0.1	0.03	--	VERO	100.0	--	09/24/87
	Ad	0	0	--	HEp-2	320.0	--	09/24/87
	VSV	0	0	--	L929	100.0	--	09/29/87
586	PT							
	JE	0	0	--	VERO	320.0	--	10/20/87
	VV	0	0	--	VERO	>320.0	--	09/24/87
	VV							
	Ad	0	0	--	HEp-2	320.0	--	09/24/87
	VSV	0	0	--	L929	320.0	--	09/29/87
587	PT							
	JE	0	0	--	VERO	320.0	--	10/20/87
	VV	0	0	--	VERO	>320.0	--	10/08/87
	Ad	>0.3	>0.1	--	HEp-2	>320.0	--	10/08/87
	VSV	0	0	--	L929	320.0	--	09/29/87
588	PT							
	JE	0	0	--	VERO	320.0	--	10/20/87
	VV	0	0	--	VERO	>320.0	--	10/08/87
	Ad	>0.1	>0.03	--	HEp-2	>320.0	--	10/08/87
	VSV	0.15	0.05	--	L929	320.0	--	09/29/87

598	PT						
	JE	0	0	--	VERO	3.2	11/05/87
	VV	0	0	--	VERO	<320.0	10/08/87
	Ad	0	0	--	HEp-2	>320.0	10/08/87
	VSV	0	0	--	L929	100.0	09/29/87
599	PT						
	JE	0	0	--	VERO	320.0	11/05/87
	VV	>0.2	>0.07	--	VERO	>320.0	10/08/87
	Ad	>0.3	>0.1	--	HEp-2	>320.0	10/08/87
	VSV	0	0	--	L929	<320.0	09/29/87
600	PT						
	JE	0.5	0.2	--	VERO	320.0	11/05/87
	VV	0	0	--	VERO	>320.0	10/08/87
	Ad	>0.1	>0.03	--	HEp-2	>320.0	10/08/87
	VSV	0	0	--	L929	<320.0	09/29/87
697	PT						
	JE	0	0	--	VERO	>320.0	11/05/87
	VV	0	0	--	VERO	>320.0	10/08/87
	Ad	>0.2	>0.07	--	HEp-2	>320.0	10/08/87
	VSV	0	0	--	L929	>320.0	09/29/87
698	PT						
	JE	0	0	--	VERO	320.0	10/09/87
	VV	>0.4	>0.13	--	VERO	>320.0	10/08/87
	Ad	>0.3	>0.1	--	HEp-2	>320.0	10/08/87
	VSV	0	0	--	L929	320.0	09/29/87
700	PT						
	JE	0	0	--	VERO	100.0	10/09/87
	VV	0.1	0.03	--	VERO	320.0	10/08/87
	Ad	0	0	--	HEp-2	>320.0	10/08/87
	VSV	0	0	--	L929	100.0	10/13/87
702	PT						
	JE	0	0	--	VERO	>320.0	10/09/87
	VV	0	0	--	VERO	>320.0	10/08/87
	Ad	0	0	--	HEp-2	>320.0	10/08/87
	VSV	0	0	--	L929	320.0	10/13/87
704	PT						
	JE	0	0	--	VERO	1.0	10/09/87
	VV	0	0	--	VERO	3.2	10/08/87
	Ad	0	0	--	HEp-2	<10.0	10/08/87
	VSV	0	0	--	L929	10.0	10/13/87
705	PT						
	JE	0	0	--	VERO	320.0	10/13/87
	VV	0	0	--	VERO	>320.0	10/08/87
	VV						
	Ad	>0.3	>0.1	--	HEp-2	>320.0	10/08/87
	Ad						
	VSV	0	0	--	L929	100.0	10/13/87
706	PT						
	JE	0	0	--	VERO	<10.0	10/13/87
	VV	0	0	--	VERO	<10.0	10/08/87
	VV						

	Ad	0	0	--	HEp-2	32.0	--	10/08/87
	Ad							
	VSV	0	0	--	L929	10.0	--	10/13/87
707	PT							
	JE	0.28	0.09	94.9	VERO	100.0	1.05	10/13/87
	VV	1.95	0.65	16.9	VERO	100.0	5.91	10/22/87
	VV	0.7	0.2	24.1	VERO	32.0	1.33	11/12/87
	Ad	0	0	--	HEp-2	<10.0	--	10/22/87
	VSV	0	0	--	L929	32.0	--	10/13/87
708	PT							
	JE	0.23	0.08	--	VERO	100.0	--	10/13/87
	VV	0	0	--	VERO	32.0	--	10/22/87
	Ad	<0.5	<0.2	--	HEp-2	<320.0	--	10/22/87
	VSV	0	0	--	L929	32.0	--	10/13/87
709	PT							
	JE	0	0	--	VERO	>320.0	--	10/14/87
	SF							
	VV	>0.1	>0.03	--	VERO	>320.0	--	10/08/87
	VV							
	Ad	>0.3	>0.1	--	HEp-2	>320.0	--	10/08/87
	Ad							
	VSV	0.4	0.1	270.9	L929	320.0	1.18	10/13/87
710	PT							
	JE	0	0	--	VERO	100.0	--	10/14/87
	VV	0	0	--	VERO	<100.0	--	10/08/87
	Ad	0	0	--	HEp-2	<100.0	--	10/08/87
	VSV	0	0	--	L929	32.0	--	10/13/87
712	PT							
	JE	2.05	0.68	12.7	VERO	100.0	7.85	10/14/87
	VV	0	0	--	VERO	100.0	--	10/22/87
	Ad	0	0	--	HEp-2	<320.0	--	10/22/87
	VSV	0	0	--	L929	10.0	--	10/13/87
713	PT							
	JE	0	0	--	VERO	<32.0	--	10/14/87
	VV	0	0	--	VERO	32.0	--	10/22/87
	Ad	0	0	--	HEp-2	32.0	--	10/22/87
	VSV	0	0	--	L929	32.0	--	10/13/87
714	PT							
	JE	0	0	--	VERO	>320.0	--	10/16/87
	VV	0	0	--	VERO	32.0	--	10/22/87
	Ad	0.2	0.1	--	HEp-2	320.0	--	10/22/87
	VSV	0	0	--	L929	100.0	--	11/06/87
715	PT							
	JE	0	0	--	VERO	>320.0	--	10/16/87
	VV	0	0	--	VERO	100.0	--	10/22/87
	Ad	0.3	0.1	100.0	HEp-2	100.0	1.0	10/22/87
	VSV	0	0	--	L929	<320.0	--	11/06/87
716	PT							
	JE	0.5	0.2	--	VERO	320.0	--	10/16/87
	VV	0	0	--	VERO	320.0	--	10/22/87

	Ad	>0.3	>0.1	--	HEp-2	>320.0	--	10/22/87
	VSV	0.05	0.02	--	L929	320.0	--	11/06/87
3246	PT							
	JE							
	VV							
	Ad							
	VSV							
3247	PT							
3248	PT							
3250	PT							
3251	PT							
3252	PT							
3254	PT							
3256	PT							
3263	PT							
3265	PT							
3269	PT							
3270	PT							
3271	PT							
3272	PT							
3274	PT							
3277	PT							
3278	PT							
3279	PT							
3280	PT							
3284	PT							
3285	PT							
3286	PT							
3288	PT							
3289	PT							
3290	PT							
3292	PT							

3293	PT							
3294	PT							
3295	PT							
3296	PT							
3297	PT							
3299	PT							
3301	PT							
3303	PT							
3304	PT							
3305	PT							
3306	PT							
3308	PT							
3309	PT							
3310	PT							
3314	PT							
3315	PT							
3316	PT							
3317	PT							
3593	PT							
	VV	4.2	1.4	0.25	VERO	10.0	39.5	10/22/87
	VV	4.1	1.4	0.32	VERO	1.0	13.13	11/12/87
	Ad	2.7	0.9	3.69	HEP2	10.0	2.7	10/22/87
	Ad	1.9	0.6	1.75	HEP2	3.2	1.83	11/12/87
	VSV	0	0	--	L929	100.0	--	11/06/87
3625	PT							
	JE	0	0	--	VERO	32.0	--	10/16/87
	VSV	0	0	--	L929	32.0	--	11/06/87
ARA-A	VV	2.4	0.8	2.4	VERO	10.0	4.2	09/24/87
	VV	3.5	1.2	0.6	VERO	10.0	15.4	09/24/87
	VV	3.0	1.0	1.0	VERO	10.0	10.0	09/24/87
	VV	3.2	1.1	0.9	VERO	10.0	11.4	09/24/87
	VV	3.5	1.2	0.6	VERO	10.0	18.0	09/24/87
	VV	2.6	0.9	0.92	VERO	3.2	3.5	10/08/87
	VV	2.7	0.9	0.77	VERO	3.2	4.2	10/08/87
	VV	3.0	1.0	0.65	VERO	3.2	4.9	10/08/87
	VV	2.9	1.0	0.64	VERO	3.2	5.0	10/08/87
	VV	2.9	1.0	0.77	VERO	3.2	4.2	10/08/87
	VV	4.2	1.4	0.56	VERO	10.0	17.9	10/22/87
	VV	4.0	1.3	0.71	VERO	10.0	14.1	10/22/87

	VV	3.9	1.3	0.81	VERO	10.0	12.3	10/22/87
	VV	4.2	1.4	0.55	VERO	10.0	17.9	10/22/87
	VV	4.0	1.3	0.71	VERO	10.0	14.1	10/22/87
	VV	2.4	0.8	5.70	VERO	32.0	19.7	11/12/87
C-3-DAdo	VSV	3.2	1.1	2.8	L929	10.0	3.6	09/29/87
	VSV	4.1	1.4	1.18	L929	10.0	8.5	10/13/87
	VSV	4.2	1.4	1.79	L929	32.0	17.9	11/06/87
Ribavirin	PT							
	JE	1.4	0.5	28.16	VERO	100.0	3.6	10/09/87
	JE	>1.1	>0.4	45.7	VERO	>100.0	>2.2	10/13/87
	JE	>2.0	>0.7	27.9	VERO	>100.0	>3.6	10/14/87
	JE	1.3	0.4	28.5	VERO	100.0	3.5	10/15/87
	JE	1.3	0.4	29.8	VERO	100.0	3.4	10/20/87
	JE	1.7	0.6	23.8	VERO	100.0	4.2	11/05/87
	VV							
	Ad	1.3	0.4	63.4	HEP-2	100.0	1.6	09/24/87
	Ad	1.2	0.4	63.3	HEP-2	100.0	1.6	09/24/87
	Ad	1.3	0.4	56.6	HEP-2	100.0	1.8	09/24/87
	Ad	1.2	0.4	63.3	HEP-2	100.0	1.6	09/24/87
	Ad	1.4	0.5	50.9	HEP-2	100.0	2.0	09/24/87
	Ad	2.3	0.8	16.8	HEP-2	100.0	6.0	10/08/87
	Ad	2.3	0.8	17.5	HEP-2	100.0	5.7	10/08/87
	Ad	2.3	0.8	16.0	HEP-2	100.0	6.2	10/08/87
	Ad	2.4	0.8	15.9	HEP-2	100.0	6.3	10/08/87
	Ad	2.1	0.7	20.3	HEP-2	100.0	4.9	10/08/87
	Ad	1.7	0.6	51.4	HEP-2	100.0	1.9	10/22/87
	Ad	1.9	0.6	36.2	HEP-2	100.0	2.8	11/12/87
	VSV	1.3	0.4	53.7	L929	100.0	1.9	10/13/87
	VSV	1.1	0.4	77.9	L929	10.0	0.13	11/06/87
Selenazole	PT							
	JE	2.6	0.9	1.60	VERO	3.2	2.0	10/09/87
	JE	2.9	1.0	0.70	VERO	3.2	4.6	10/13/87
	JE	3.6	1.2	0.79	VERO	10.0	12.7	10/14/87
	JE	3.0	1.0	1.19	VERO	3.2	2.7	10/16/87
	JE	2.8	0.9	2.26	VERO	10.0	4.4	10/20/87
	JE	3.0	1.0	1.77	VERO	3.2	1.8	11/05/87
	VV	1.6	0.6	38.2	VERO	32.0	0.8	09/24/87
	VV	1.7	0.6	38.5	VERO	32.0	0.8	09/24/87
	VV	1.9	0.6	20.8	VERO	32.0	1.5	09/24/87
	VV	1.7	0.6	27.2	VERO	32.0	1.2	09/24/87
	VV	1.6	0.5	22.9	VERO	32.0	1.4	09/24/87
	VV	1.9	0.6	12.9	VERO	10.0	0.8	10/08/87
	VV	1.9	0.6	14.4	VERO	10.0	0.7	10/08/87
	VV	1.9	0.6	12.9	VERO	10.0	0.8	10/08/87
	VV	1.7	0.6	18.7	VERO	10.0	0.5	10/08/87
	VV	2.4	0.8	14.1	VERO	10.0	0.7	10/08/87
	VV	2.5	0.8	6.89	VERO	32.0	4.7	10/22/87
	VV	2.3	0.8	8.48	VERO	32.0	3.8	10/22/87
	VV	2.4	0.8	9.14	VERO	32.0	3.5	10/22/87
	VV	2.4	0.8	9.14	VERO	32.0	3.5	10/22/87
	VV	2.9	0.97	9.23	VERO	100.0	10.8	10/22/87

VV	2.4	0.8	5.70	VERO	10.0	1.8	11/12/87
Ad	1.1	0.4	100.0	HEp-2	32.0	0.3	09/24/87
Ad	0.9	0.3	100.0	HEp-2	32.0	0.3	09/24/87
Ad	0.8	0.3	157.3	HEp-2	32.0	0.2	09/24/87
Ad	0.9	0.3	133.2	HEp-2	32.0	0.2	09/24/87
Ad	0.9	0.3	110.0	HEp-2	32.0	0.3	09/24/87
Ad	1.15	0.4	18.4	HEp-2	32.0	1.7	10/08/87
Ad	1.10	0.4	21.3	HEp-2	32.0	1.5	10/08/87
Ad	1.35	0.5	18.1	HEp-2	32.0	1.8	10/08/87
Ad	1.45	0.5	14.4	HEp-2	32.0	2.2	10/08/87
Ad	1.3	0.4	17.4	HEp-2	32.0	1.8	10/08/87
Ad	1.5	0.5	55.5	HEp-2	100.0	1.8	10/22/87
Ad	1.8	0.6	40.5	HEp-2	100.0	2.5	10/22/87
Ad	1.6	0.5	57.4	HEp-2	100.0	1.7	10/22/87
Ad	1.7	0.6	46.8	HEp-2	100.0	2.1	10/22/87
Ad	1.9	0.6	34.1	HEp-2	100.0	2.9	10/22/87
Ad	1.4	0.5	17.4	HEP-2	32.0	1.8	11/12/87

 VR* = Virus Rating calculated according to the method of Sidwell and Huffmar (Appl. Microbiol. 22: 797-801, 1971).

UPDATED: 11/16/87:ADB

SHIPMENT NO. 31 (Filename AVS1.31)

AVS NO.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
3348	PT JE VV	0	0	--	VERO	<100.0	--	10/21/87
3349	PT JE	0	0	--	VERO	>320.0	--	10/21/87
3350	PT JE	0	0	--	VERO	>320.0	--	10/21/87
3351	PT JE	0	0	--	VERO	>320.0	--	10/21/87
3352	PT JE	0	0	--	VERO	10.0	--	10/21/87
3353	PT JE VV Ad	0 0 0.15	0 0 0.05	-- -- --	VERO VERO HEP2	10.0 <32.0 1.0	-- -- --	10/21/87 10/22/87 11/05/87
3354	PT JE VV Ad	0 0 0	0 0 0	-- -- --	VERO VERO HEP2	<32.0 <32.0 <10.0	-- -- --	10/21/87 10/22/87 10/22/87
3355	PT JE VV Ad VSV	0 0 0	0 0 0	-- -- --	VERO VERO HEP2	10.0 <32.0 <3.2	-- -- --	10/22/87 10/22/87 10/22/87
3356	PT JE VV Ad VSV	0 0 0	0 0 0	-- -- --	VERO VERO HEP2	10.0 <32.0 <32.0	-- -- --	10/22/87 10/22/87 10/22/87
3357	PT JE VV Ad VSV	0	0	--	VERO	32.0	--	10/22/87
3358	PT JE VV Ad VSV	0	0	--	VERO	<100.0	--	10/22/87
3359	PT JE VV	0 0	0 0	-- --	VERO VERO	>320.0 32.0	-- --	10/22/87 10/22/87

	Ad VSV	0	0	--	HEP2	(10.0	--	10/22/87
3360	PT JE	0	0	--	VERO	(32.0	--	10/22/87
3361	PT JE VV Ad VSV	0 0 0 0	0 0 0 0	-- -- -- --	VERO VERO HEP2	(100.0 32.0 10.0	-- -- --	10/22/87 10/22/87 10/22/87
3362	PT JE VV Ad	0 0 0.3	0 0 0.1	-- -- 320.0	VERO VERO HEP2	10.0 320.0 320.0	-- -- --	10/23/87 11/12/87 11/12/87
3363	PT JE	0	0	--	VERO	32.0	--	10/23/87
3364	PT JE	0	0	--	VERO	10.0	--	10/23/87
3365	PT JE	0	0	--	VERO	10.0	--	10/23/87
3366	PT JE	0	0	--	VERO	32.0	--	10/23/87
3367	PT JE							
3368	PT JE	0	0	--	VERO	100.0	--	10/23/87
3369	PT JE	0.6	0.2	178.8	VERO	320.0	1.8	10/26/87
3370	PT JE	0	0	--	VERO	32.0	--	10/26/87
3371	PT JE	0	0	--	VERO	(320.0	--	10/26/87
3372	PT JE	0	0	--	VERO	100.0	--	10/26/87
3373	PT JE	0	0	--	VERO	>320.0	--	10/26/87
3374	PT JE	0	0	--	VERO	(100.0	--	10/26/87
3375	PT JE	0	0	--	VERO	10.0	--	10/26/87
3376	PT							
3377	PT							

3379	PT
3380	PT
3381	PT
3382	PT
3383	PT
3384	PT
3385	PT
3386	PT
3387	PT
3393	PT
3399	PT
3400	PT
3403	PT
3412	PT

UPDATED: 11/02/87:ADB
(FILENAME:AVS1.31)

SHIPMENT NO. 31 CONTINUED: (Filename AVS2.31)

AVS NO.	VIR	VR	VR*	IDSO	CELL	MTC	TI	DATE
3520	PT							
3521	PT							
	JE							
	VV	0.3	0.1	--	VERO	100.0	--	10/29/87
	Ad	0.2	0.07	--	HEP2	<320.0	--	10/29/87
3522	PT							
	VV	0	0	--	VERO	>320.0	--	10/29/87
	Ad	0.1	0.03	--	HEP2	320.0	--	10/29/87
3523	PT							
	VV	0.15	0.05	--	VERO	320.0	--	10/29/87
	Ad	>0.7	>0.2	270.9	HEP2	>320.0	>1.9	10/29/87
3524	PT							
	VV	>0.6	>0.2	--	VERO	>320.0	--	10/29/87
	Ad	>0.2	>0.1	--	HEP2	>320.0	--	10/29/87
3525	PT							
	VV	0	0	--	VERO	>320.0	--	10/29/87
	Ad	0	0	--	HEP2	>320.0	--	10/29/87
3526	PT							
	VV							
	Ad							
3527	PT							
	JE	0	0	--	VERO	<100.0	--	10/28/87
3528	PT							
	JE	0	0	--	VERO	<320.0	--	10/28/87
	VV	0.8	0.3	178.5	VERO	320.0	1.8	10/29/87
	Ad	0.4	0.1	--	HEP2	<320.0	--	10/29/87
3529	PT							
3530	PT							
	JE	0	0	--	VERO	>320.0	--	10/28/87
3531	PT							
	JE	0	0	--	VERO	>320.0	--	10/28/87
3532	PT							
	JE	0	0	--	VERO	<320.0	--	10/28/87
	VV	0	0	--	VERO	<320.0	--	10/29/87
	Ad	0	0	--	HEP2	320.0	--	10/29/87
3533	PT							
	JE	0	0	--	VERO	>320.0	--	10/28/87

	VV	>7.1	>2.4	0.49	VERO	>320.0	>653.6	10/29/87
	VV	>7.1	>2.4	0.311	VERO	>320.0	>1028.7	11/12/87
	Ad	0.15	0.05	--	HEP2	320.0	--	10/29/87
3534	PT							
	JE	>0.20	>0.07	--	VERO	>320.0	--	10/29/87
	VV	>6.80	>2.27	0.738	VERO	>320.0	>433.7	10/29/87
	VV	>7.0	>2.3	0.477	VERO	>320.0	>671.4	11/12/87
	Ad	0.3	0.1	--	HEP2	>320.0	--	10/29/87
3535	PT							
	JE	>0.20	>0.07	--	VERO	>320.0	--	10/29/87
	VV	>2.3	>0.8	55.1	VERO	>320.0	>5.8	10/29/87
	VV	>2.5	>0.8	49.1	VERO	>320.0	>6.5	11/12/87
	Ad	0.15	0.05	--	HEP2	320.0	--	10/29/87
3536	PT							
	JE	0	0	--	VERO	>320.0	--	10/29/87
	VV	>1.2	>0.4	178.5	VERO	>320.0	>1.8	10/29/87
	Ad	0	0	--	HEP2	100.0	--	10/29/87
3537	PT							
	JE	0	0	--	VERO	<32.0	--	10/29/87
	VV	0	0	--	VERO	10.0	--	10/29/87
	Ad	0	0	--	HEP2	<32.0	--	10/29/87
3538	PT							
	JE	0.8	0.3	105.2	VERO	100.0	1.0	10/29/87
	VV	0	0	--	VERO	100.0	--	10/29/87
	Ad	0	0	--	HEP2	100.0	--	10/29/87
3539	PT							
	JE	0	0	--	VERO	<32.0	--	10/29/87
3540	PT							
	JE	>0.20	>0.07	--	VERO	>320.0	--	10/29/87
3541	PT							
	JE	0	0	--	VERO	3.2	--	11/02/87
3542	PT							
	JE	0	0	--	VERO	3.2	--	11/02/87
3543	PT							
	JE	0	0	--	VERO	10.320	--	11/02/87
3544	PT							
	JE	0	0	--	VERO	>320.0	--	11/02/87
3545	PT							
	JE	0	0	--	VERO	320.0	--	11/02/87
3546	PT							
	JE	0.20	0.07	--	VERO	32.0	--	11/02/87
3547	PT							
	JE	0.05	0.02	--	VERO	10.0	--	11/02/87
3548	PT							
	JE	0	0	--	VERO	<100.0	--	11/03/87

3549	PT							
	JE	0	0	--	VERO	10.0	--	11/03/87
3550	PT							
	JE	0	0	--	VERO	32.0	--	11/03/87
3551	PT							
	JE	0	0	--	VERO	320.0	--	11/03/87
3552	PT							
	JE	0	0	--	VERO	10.0	--	11/03/87
3553	PT							
	JE							
3556	PT							
	JE	0	0	--	VERO	100.0	--	11/03/87
3557	PT							
	JE	0.6	0.2	--	VERO	100.0	--	11/03/87
3558	PT							
3559	PT							
3560	PT							
3561	PT							
3562	PT							
3563	PT							
Ara-A	VV	4.2	1.4	0.56	VERO	10.0	17.9	10/22/87
	VV	4.0	1.3	0.71	VERO	10.0	14.1	10/22/87
	VV	3.9	1.3	0.81	VERO	10.0	12.3	10/22/87
	VV	4.2	1.4	0.56	VERO	10.0	17.9	10/22/87
	VV	4.0	1.3	0.71	VERO	10.0	14.1	10/22/87
	VV	2.8	0.9	3.1	VERO	32.0	10.3	10/29/87
	VV	3.0	1.0	2.9	VERO	32.0	11.1	10/29/87
	VV	3.1	1.0	2.4	VERO	32.0	13.2	10/29/87
	VV	2.7	0.9	3.7	VERO	32.0	8.6	10/29/87
	VV	2.9	1.0	3.0	VERO	32.0	10.7	10/29/87
	VV	3.3	1.1	1.63	VERO	32.0	19.8	11/12/87
Ribavirin	JE	>1.3	>0.4	49.9	VERO	>100.0	>2.0	10/21/87
	JE	>0.9	>0.3	81.9	VERO	>100.0	>1.2	10/22/87
	JE	>1.2	>0.4	56.5	VERO	>100.0	>1.8	10/23/87
	JE	>1.0	>0.3	69.9	VERO	>100.0	>1.4	10/26/87
	JE	1.2	0.4	31.72	VERO	100.0	3.2	10/28/87
	JE	>1.8	>0.6	34.74	VERO	>100.0	>2.9	10/29/87
	JE	1.1	0.4	50.39	VERO	100.0	2.0	11/02/87
	JE	1.5	0.5	28.10	VERO	100.0	3.6	11/03/87
	Ad	1.7	0.6	51.5	HEP2	100.0	1.9	10/22/87
	Ad	1.4	0.5	50.6	HEP2	100.0	2.0	10/29/87
	Ad	1.6	0.5	40.1	HEP2	100.0	2.5	10/29/87
	Ad	1.5	0.5	45.7	HEP2	100.0	2.2	10/29/87

	Ad	1.8	0.6	42.9	HEP2	100.0	2.3	10/29/87
	Ad	1.5	0.5	50.5	HEP2	100.0	2.0	10/29/87
	Ad	1.6	0.5	46.7	HEP2	100.0	2.1	10/29/87
	Ad	1.9	0.6	36.2	HEP2	100.0	2.8	11/12/87
Selenazole	JE	2.6	0.9	3.03	VERO	10.0	3.3	10/21/87
	JE	2.8	0.9	1.98	VERO	3.2	1.6	10/22/87
	JE	2.4	0.8	2.23	VERO	3.2	1.4	10/23/87
	JE	3.2	1.1	0.89	VERO	3.2	3.6	10/26/87
	JE	3.3	1.1	0.81	VERO	3.2	3.9	10/28/87
	JE	3.4	1.1	0.92	VERO	3.2	3.5	10/29/87
	JE	3.2	1.1	0.96	VERO	3.2	3.4	11/02/87
	JE	2.7	0.9	1.57	VERO	3.2	2.0	11/03/87
	VV	2.5	0.8	6.89	VERO	32.0	4.7	10/22/87
	VV	2.3	0.8	8.48	VERO	32.0	3.8	10/22/87
	VV	2.4	0.8	9.14	VERO	32.0	3.5	10/22/87
	VV	2.4	0.8	9.14	VERO	32.0	3.5	10/22/87
	VV	2.9	1.0	9.23	VERO	100.0	10.8	10/22/87
	VV	2.3	0.8	7.6	VERO	10.0	1.3	10/29/87
	VV	2.0	0.7	11.3	VERO	10.0	0.9	10/29/87
	VV	2.4	0.8	6.1	VERO	10.0	1.7	10/29/87
	VV	2.2	0.7	9.0	VERO	10.0	1.1	10/29/87
	VV	2.4	0.8	9.0	VERO	10.0	1.1	10/29/87
	VV	2.1	0.7	14.38	VERO	32.0	2.2	11/05/87
	VV	2.4	0.8	5.7	VERO	10.0	1.8	11/12/87
	Ad	1.5	0.5	54.5	HEP2	100.0	1.8	10/22/87
	Ad	1.8	0.6	40.5	HEP2	100.0	2.5	10/22/87
	Ad	1.6	0.5	57.4	HEP2	100.0	1.7	10/22/87
	Ad	1.7	0.6	46.8	HEP2	100.0	2.1	10/22/87
	Ad	1.9	0.6	34.1	HEP2	100.0	2.9	10/22/87
	Ad	1.9	0.6	27.8	HEP2	32.0	1.2	10/29/87
	Ad	1.8	0.6	31.0	HEP2	32.0	1.0	10/29/87
	Ad	1.7	0.6	30.7	HEP2	32.0	1.0	10/29/87
	Ad	1.5	0.5	56.0	HEP2	32.0	0.6	10/29/87
	Ad	1.7	0.6	37.0	HEP2	32.0	0.9	10/29/87
	Ad	1.4	0.5	17.4	HEP2	32.0	1.8	11/12/87

VR* = Virus Rating calculated according to the method of Sidwell and Huffman (Appl. Microbiol. 22: 797-801, 1971).

UPDATED: 11/16/87: ADR
(FILENAME: AVS2.31)

SHIPMENT NO. 32

AVS NO.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
1801								
1829								
1835								
1850								
2811								
2920	PT							
	VV	0	0	--	VERO	320.0	--	11/05/87
	Ad	>0.3	>0.1	--	HEP2	>320.0	--	11/05/87
	VSV	0	0	--	L929	32.0	--	11/13/87
2921	PT							
	VV	0	0	--	VERO	320.0	--	11/05/87
	Ad	>0.8	>0.3	317.2	HEP2	>320.0	>1.0	11/05/87
	VSV	0	0	--	L929	100.0	--	11/13/87
2922	PT							
	VV	0.45	0.15	--	VERO	320.0	--	11/05/87
	Ad	>0.4	>0.1	--	HEP2	>320.0	--	11/05/87
	VSV	0.5	0.02	--	L929	100.0	--	11/13/87
2923	PT							
	VV	0	0	--	VERO	100.0	--	11/05/87
	Ad	0	0	--	HEP2	100.0	--	11/05/87
	VSV	0	0	--	L929	<320.0	--	11/13/87
2924	PT							
	VV	0	0	--	VERO	>320.0	--	11/05/87
	Ad	>0.5	>0.2	--	HEP2	>320.0	--	11/05/87
	VSV	0	0	--	L929	320.0	--	11/13/87
2925	PT							
	VV	0	0	--	VERO	>320.0	--	11/05/87
	Ad	>0.4	>0.1	--	HEP2	>320.0	--	11/05/87
	VSV	0	0	--	L929	>320.0	--	11/13/87
3421								
3422								
3423								
3424								
3425								
3426								
3427								

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(Filename AVS1.32)

SHIPMENT NO. 32 continued: (Filename AVS2.32)

AVS NO.	VIR	VR	VR*	ID50	CELL	MTC	TI	DATE
3677								
3678								
3679								
3680								
3681	PT							
	VV	0	0	--	VERO	32.0	--	11/05/87
	Ad	0	0	--	HEP2	<32.0	--	11/05/87
	VSV	0	0	--	L929	32.0	--	11/13/87
3682	PT							
	VV	0	0	--	VERO	32.0	--	11/05/87
	Ad	0	0	--	HEP2	32.0	--	11/05/87
	VSV	0	0	--	L929	32.0	--	11/13/87
3683	PT							
	VV	0	0	--	VERO	100.0	--	11/05/87
	Ad	0	0	--	HEP2	<32.0	--	11/05/87
	VSV	0	0	--	L929	100.0	--	11/13/87
3684	PT							
	VV	0.35	0.12	270.9	VERO	320.0	1.18	11/05/87
	Ad	0	0	--	HEP2	>320.0	--	11/05/87
	VSV	0	0	--	L929	100.0	--	11/13/87
3685	PT							
	VV	0	0	--	VERO	320.0	--	11/05/87
	Ad	0.15	0.05	--	HEP2	320.0	--	11/05/87
	VSV	0	0	--	L929	<320.0	--	11/13/87
3686	PT							
	VV	0	0	--	VERO	100.0	--	11/05/87
	Ad	0.1	0.03	--	HEP2	<100.0	--	11/05/87
	VSV	0	0	--	L929	32.0	--	11/13/87
3687	PT							
	VV	0	0	--	VERO	>320.0	--	11/05/87
	Ad	0	0	--	HEP2	>320.0	--	11/05/87
	VSV	0	0	--	L929	320.0	--	11/13/87
3688	PT							
	VV	0	0	--	VERO	100.0	--	11/05/87
	Ad	0	0	--	HEP2	100.0	--	11/05/87
	VSV	0	0	--	L929	<100.0	--	11/13/87
3689	PT							
	VV	0.2	0.07	--	VERO	100.0	--	11/05/87
	Ad	0.15	0.05	--	HEP2	100.0	--	11/05/87
	VSV	0	0	--	L929	32.0	--	11/13/87
3690	PT							

	VV	0	0	--	VERO	100.0	--	11/05/87
	Ad	0	0	--	VERO	(100.0	--	11/05/87
3691	PT							
	VV	0.55	0.18	23.92	VERO	32.0	1.34	11/05/87
	Ad	0.3	0.1	--	HEP2	100.0	--	11/05/87
3692	PT							
	VV	0	0	--	VERO	10.0	--	11/05/87
	Ad	0	0	--	HEP2	10.0	--	11/05/87
3693	PT							
	VV	0.15	0.05	--	VERO	32.0	--	11/12/87
	Ad	0	0	--	HEP2	32.0	--	11/12/87
3694	PT							
	VV	0	0	--	VERO	100.0	--	11/12/87
	Ad	0.3	0.1	--	HEP2	(320.0	--	11/12/87
3695	PT							
	VV	0	0	--	VERO	320.0	--	11/12/87
	Ad	0	0	--	HEP2	320.0	--	11/12/87
3696	PT							
	VV	0	0	--	VERO	320.0	--	11/12/87
	Ad	>0.7	>0.2	319.8	HEP2	>320.0	>1.0	11/12/87
3697	PT							
	VV	0.6	0.2	222.0	VERO	320.0	1.4	11/12/87
	Ad	0.7	0.2	--	HEP2	(320.0	--	11/12/87
3698	PT							
	VV	0	0	--	VERO	32.0	--	11/12/87
	Ad	0	0	--	HEP2	100.0	--	11/12/87
3699	PT							
	VV	0	0	--	VERO	100.0	--	11/12/87
	Ad	0	0	--	HEP2	100.0	--	11/12/87
3700	PT							
	VV	0.05	0.02	--	VERO	320.0	--	11/12/87
	Ad	0	0	--	HEP2	(320.0	--	11/12/87
3701	PT							
	VV	0	0	--	VERO	100.0	--	11/12/87
	Ad	0	0	--	HEP2	100.0	--	11/12/87
3702	PT							
	VV	0	0	--	VERO	320.0	--	11/12/87
	Ad	>0.7	>0.2	319.8	HEP2	>320.0	1.0	11/12/87
3703								
3704								
3705								
3706								

B-222

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3905

	PT							
	VV	0.15	0.05	--	VERO	100.0	--	11/12/87
	Ad	0.3	0.1	--	HEP2	320.0	--	11/12/87
ARA-A	VV	2.9	0.97	3.02	VERO	320.0	10.59	11/05/87
	VV	3.3	1.1	1.68	VERO	32.0	19.7	11/12/87
C-3-Deaza- Adc	VSV	4.3	1.4	0.83	L929	10.0	12.1	11/12/87
Ribavirin	Ad	1.9	0.6	36.2	HEP2	100.0	2.76	11/12/87
	VSV	1.3	0.4	53.7	L929	100.0	1.86	11/13/87
SELENA- ZOLE	PT							
	VV	2.45	0.82	6.41	VERO	10.0	1.56	11/05/87
	VV	2.4	0.8	5.70	VERO	10.0	1.76	11/12/87
	Ad	2.05	0.68	14.4	HEP2	32.0	2.22	11/05/87
	Ad	1.40	0.47	17.4	HEP2	32.0	1.83	11/12/87

VR* = Virus Rating calculated according to the method of Sidwell and
Huffman (Appl. Microbiol. 22: 797-801, 1971).

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UPDATED:11/16/87:ADB
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Appendix C**Cumulative Summary of *In Vitro* Antiviral Test Results
(HIV)**

Explanation: Summary of Antiviral Test Results (AIDS)

This is a cumulative summary of the AIDS testing with AVS compounds. Data is sorted by compound shipment number. The summary is updated periodically and the date appears on the last page of each compound shipment.

Data for the concurrent positive control drug within an experiment is listed by virus and date. To view the results of the positive control tested in a given experiment find the virus and the date on the positive control page(s) that corresponds to the particular test compound.

If results of a particular test(s) are unsatisfactory, hyphens will appear under VR, VR*, ID50, MTC, and TI. This test will be repeated at a later date.

AVS No. - A unique ID number assigned to each compound by the Division of Antiviral Studies (DAS).

Protocol- Cytopathogenic Effect (CPE)
Plaque Reduction (PR)
Syncytia Inhibition (SI)

Virus	Symbol	Virus	Family
	-----	-----	-----
	FeLV	Feline Leukemia, FAIDS Variant (strain 1161C)	Retrovirus
	HIV	Human Immunodeficiency Virus	Retrovirus
	SRV2	Simian Retrovirus 2	Retrovirus
	MLV1	Murine Leukemia Virus	Retrovirus

VR - Virus rating is a measurement of selective antiviral activity which takes into account the degree of inhibition of virus-induced CPE and the degree of cytotoxicity produced by the test compound. Determined by a modification of the method of Ehrlich, et al (Acad. Sci., 130:5-16, 1965).

VR* - Virus rating calculated by the method of Hoffman and Sidwell (Appl. Microbiol. 22: 795-801, 1971).

ID50 - Inhibitory dose 50. Concentration of the drug that causes a 50% reduction in virus replication (calculated using a regression analysis program for semilog curve fitting and is in units of $\mu\text{g/ml}$).

CELL - Cell line.

MTC - Minimum Toxic Concentration ($\mu\text{g/ml}$).

TI - Therapeutic index. A measurement of the antiviral potential for the drug (calculated as MTC/ID50).

DATE - Start date of the experiment.

Positive Control Compounds - ddC (Dideoxycytidine, AVS-2639)
AZT (Azidothymidine, AVS-1603)

NOTE -

CPE grades were not read for HIV assays done prior to March 1, 1987. Prior to this time, cell numbers (viable/nonviable) were counted and the percent viability was calculated to determine the activity of the compound. For this report, CPE scores were created from the cell count data therefore the virus rating (VR) calculations are approximates.

SUMMARY OF ANITVIRAL TEST RESULTS(AIDS)--CONTRACT DAMD17-86-C-6013 (SciRI

SHIPMENT NO.

AVS NO.	PROTOCOL	VIRUS	VR	VR*	ID50	CELL	MTC	TI	DATE
AVS-1603	CPE	FeLV	3.65	1.22	-	5.800 81C	)	78.4	13.52 08/15/86
AVS-1603	CPE	HIV	4.20	1.40	(	0.100 ATH8	-	10.0	100.00 06/16/87
AVS-1603	SI	HIV	0.00	0.00	-	0.138 HELA-	)	32.0	232.37 04/20/87
AVS-1603	SI	HIV	0.00	0.00	(	0.100 HELA--		3.2	32.00 07/28/87
AVS-2639	CPE	FeLV	2.95	0.98	-	2.600 81C	-	7.3	2.79 09/17/86
AVS-2639	CPE	FeLV	2.00	0.67	-	0.760 81C	(	10.0	13.16 10/10/86
AVS-2639	CPE	FeLV	4.00	1.33	-	0.250 81C	-	10.0	40.07 11/07/86
AVS-2639	CPE	FeLV	3.23	1.08	-	0.980 81C	-	10.0	10.20 11/14/86
AVS-2639	CPE	FeLV	1.40	0.47	-	0.900 81C	(	10.0	11.11 01/15/87
AVS-2639	CPE	FeLV	0.80	0.27	-	0.520 81C	(	3.2	6.16 01/16/87
AVS-2639	CPE	FeLV	1.30	0.43	-	1.175 81C	(	10.0	8.51 01/22/87
AVS-2639	CPE	FeLV	1.40	0.47	-	1.704 81C	-	10.0	5.87 01/23/87
AVS-2639	CPE	FeLV	1.80	0.60	-	1.316 81C	-	10.0	7.60 01/29/87
AVS-2639	CPE	FeLV	3.36	1.12	-	0.308 81C	-	10.0	32.44 02/05/87
AVS-2639	CPE	FeLV	2.95	0.98	-	0.690 81C	-	10.0	14.50 02/06/87
AVS-2639	CPE	FeLV	2.95	0.98	-	0.573 81C	-	10.0	17.45 02/26/87
AVS-2639	CPE	FeLV	2.53	0.84	-	0.687 81C	-	10.0	14.55 02/27/87
AVS-2639	CPE	FeLV	3.00	1.00	-	0.643 81C	-	10.0	15.56 03/02/87
AVS-2639	CPE	FeLV	2.30	0.77	-	0.559 81C	-	10.0	17.90 04/10/87
AVS-2639	CPE	FeLV	3.02	1.01	-	0.657 81C	-	10.0	15.23 07/10/87
AVS-2639	CPE	FeLV	2.64	0.88	-	0.543 81C	-	10.0	18.43 07/17/87
AVS-2639	CPE	FeLV	1.70	0.57	-	1.884 81C	-	10.0	5.31 07/31/87
AVS-2639	CPE	FeLV	1.00	0.33	-	3.569 81C	-	10.0	2.80 08/07/87
AVS-2639	CPE	FeLV	1.52	0.51	-	1.900 81C	-	10.0	5.26 09/11/87
AVS-2639	CPE	HIV	4.00	1.33	(	0.100 ATH8	)	3.2	32.00 03/10/87
AVS-2639	CPE	HIV	2.65	0.88	(	0.100 ATH8	-	1.0	10.00 03/11/87
AVS-2639	CPE	HIV	3.40	1.13	(	0.100 ATH8	-	3.2	32.00 03/11/87
AVS-2639	CPE	HIV	3.60	1.20	(	0.100 ATH8	-	3.2	32.00 03/11/87
AVS-2639	CPE	HIV	2.60	0.87	(	0.100 ATH8	-	0.3	3.20 03/12/87
AVS-2639	CPE	HIV	4.20	1.40	(	0.100 ATH8	-	3.2	32.00 03/16/87
AVS-2639	CPE	HIV	3.30	1.10	(	0.100 ATH8	-	3.2	32.00 03/17/87
AVS-2639	CPE	HIV	1.65	0.55	-	0.134 ATH8	-	3.2	23.93 03/17/87
AVS-2639	CPE	HIV	2.05	0.68	(	0.100 ATH8	-	1.0	10.00 03/18/87
AVS-2639	CPE	HIV	4.60	1.53	(	0.100 ATH8	)	3.2	32.00 03/19/87
AVS-2639	CPE	HIV	2.15	0.72	(	0.100 ATH8	-	1.0	10.00 03/22/87
AVS-2639	CPE	HIV	2.95	0.98	(	0.100 ATH8	-	1.0	10.00 03/22/87
AVS-2639	CPE	HIV	3.40	1.13	(	0.100 ATH8	(	3.2	32.00 03/22/87
AVS-2639	CPE	HIV	1.85	0.62	(	0.100 ATH8	-	0.3	3.20 03/22/87
AVS-2639	CPE	HIV	2.50	0.83	-	0.121 ATH8	-	1.0	8.24 03/23/87
AVS-2639	CPE	HIV	2.00	0.67	-	0.144 ATH8	-	1.0	6.93 03/23/87
AVS-2639	CPE	HIV	4.40	1.47	(	0.100 ATH8	)	3.2	32.00 05/14/87
AVS-2639	CPE	HIV	3.10	1.03	(	0.100 ATH8	)	3.2	32.00 05/15/87
AVS-2639	CPE	HIV	2.80	0.93	(	0.100 ATH8	-	3.2	32.00 05/20/87
AVS-2639	CPE	HIV	3.80	1.27	(	0.100 ATH8	-	3.2	32.00 05/22/87
AVS-2639	CPE	HIV	3.90	1.30	-	0.116 ATH8	)	3.2	27.56 05/28/87
AVS-2639	CPE	HIV	3.40	1.13	(	0.100 ATH8	)	3.2	32.00 05/28/87
AVS-2639	CPE	HIV	3.95	1.32	(	0.100 ATH8	-	3.2	32.00 06/01/87
AVS-2639	CPE	HIV	3.85	1.28	(	0.100 ATH8	-	3.2	32.00 06/01/87
AVS-2639	CPE	HIV	2.70	0.90	(	0.100 ATH8	-	1.0	10.00 06/01/87

AVS-2639	CPE	HIV	4.30	1.43	<	0.100	ATHB	>	3.2	32.00	06/05/87
AVS-2639	CPE	HIV	4.80	1.60	<	0.100	ATHB	>	3.2	32.00	06/05/87
AVS-2639	CPE	HIV	3.58	1.19	<	0.100	ATHB	-	3.2	32.00	06/09/87
AVS-2639	CPE	HIV	5.40	1.80	<	0.100	ATHB	-	10.0	100.00	06/10/87
AVS-2639	CPE	HIV	4.20	1.40	<	0.100	ATHB	-	10.0	100.00	06/11/87
AVS-2639	CPE	HIV	4.95	1.65	<	0.100	ATHB	-	10.0	100.00	06/16/87
AVS-2639	CPE	HIV	4.05	1.35	<	0.100	ATHB	-	10.0	100.00	06/16/87
AVS-2639	CPE	HIV	1.40	0.47	-	0.752	ATHB	-	10.0	13.30	06/17/87
AVS-2639	CPE	HIV	2.55	0.85	-	0.271	ATHB	-	10.0	36.97	06/17/87
AVS-2639	CPE	HIV	1.30	0.43	-	0.000	ATHB	-	10.0	0.00	06/19/87
AVS-2639	CPE	HIV	3.75	1.25	-	5.868	ATHB	-	10.0	1.70	06/22/87
AVS-2639	CPE	HIV	6.00	2.00	<	0.100	ATHB	-	32.0	320.00	06/22/87
AVS-2639	CPE	HIV	1.65	0.55	-	0.000	ATHB	-	32.0	0.00	06/22/87
AVS-2639	CPE	HIV	6.27	2.09	<	0.100	ATHB	-	100.0	1000.00	06/24/87
AVS-2639	CPE	HIV	3.45	1.15	-	0.320	ATHB	-	32.0	100.00	06/25/87
AVS-2639	CPE	HIV	2.05	0.68	-	3.200	ATHB	-	10.0	3.13	06/29/87
AVS-2639	CPE	HIV	2.25	0.75	<	0.100	ATHB	-	3.2	32.00	06/30/87
AVS-2639	CPE	HIV	2.85	0.95	-	0.229	ATHB	-	10.0	43.65	07/01/87
AVS-2639	CPE	HIV	3.05	1.02	<	0.100	ATHB	-	10.0	100.00	07/01/87
AVS-2639	CPE	HIV	3.25	1.08	-	0.320	ATHB	-	32.0	100.00	07/02/87
AVS-2639	CPE	HIV	4.60	1.53	-	0.156	ATHB	-	100.0	642.38	07/06/87
AVS-2639	CPE	HIV	2.85	0.95	<	0.100	ATHB	-	1.0	10.00	07/08/87
AVS-2639	CPE	HIV	1.40	0.47	<	0.100	ATHB	-	3.2	32.00	07/09/87
AVS-2639	CPE	HIV	2.20	0.73	<	0.100	ATHB	-	10.0	100.00	07/09/87
AVS-2639	CPE	HIV	2.10	0.70	<	0.100	ATHB	-	10.0	100.00	07/09/87
AVS-2639	CPE	HIV	1.70	0.57	<	0.100	ATHB	-	3.2	32.00	07/10/87
AVS-2639	CPE	HIV	5.00	1.67	<	0.100	ATHB	-	100.0	1000.00	07/14/87
AVS-2639	CPE	HIV	4.25	1.42	<	0.100	ATHB	-	32.0	320.00	07/16/87
AVS-2639	CPE	HIV	4.25	1.42	-	0.148	ATHB	-	10.0	67.56	07/21/87
AVS-2639	CPE	HIV	2.80	0.93	-	0.250	ATHB	<	32.0	128.00	07/22/87
AVS-2639	CPE	HIV	4.00	1.33	-	0.191	ATHB	-	10.0	52.39	07/23/87
AVS-2639	CPE	HIV	5.25	1.75	-	0.320	ATHB	-	32.0	100.00	07/24/87
AVS-2639	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	0.0	0.00	09/10/87
AVS-2639	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	0.0	0.00	09/11/87
AVS-2639	CPE	HIV	2.85	0.95	-	9.354	ATHB	-	10.0	1.07	09/17/87
AVS-2639	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	0.0	0.00	09/26/87
AVS-2639	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	0.0	0.00	09/30/87
AVS-2639	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	0.0	0.00	10/06/87
AVS-2639	CPE	HIV	5.15	1.72	<	0.100	ATHB	-	10.0	100.00	10/07/87
AVS-2639	CPE	HIV	2.85	0.95	<	0.100	ATHB	-	10.0	100.00	10/09/87
AVS-2639	CPE	HIV	-	-	-	-	ATHB	-	-	-	10/12/87
AVS-2639	SI	HIV	-	-	<	0.100	HELAT	-	32.0	320.00	10/12/87
AVS-2639	CPE	HIV	3.95	1.32	<	0.100	ATHB	-	10.0	100.00	10/14/87
AVS-2639	CPE	HIV	3.80	1.27	-	0.100	ATHB	-	10.0	100.00	10/19/87
AVS-2639	CPE	HIV	-	-	-	-	ATHB	-	-	-	10/21/87
AVS-2639	CPE	HIV	4.45	1.48	<	0.100	ATHB	-	32.0	320.00	10/28/87
AVS-2639	CPE	HIV	4.70	1.57	<	0.100	ATHB	-	10.0	100.00	10/29/87
AVS-2639	CPE	HIV	4.35	1.45	<	0.100	ATHB	-	10.0	100.00	11/06/87
AVS-2639	CPE	HIV	5.45	1.82	<	0.100	ATHB	-	32.0	320.00	11/09/87
AVS-2639	SI	HIV	0.00	0.00	-	0.165	HELA-	>	32.0	193.55	04/20/87
AVS-2639	SI	HIV	0.00	0.00	-	0.197	HELA--	-	1.0	5.06	07/28/87
AVS-2639	SI	SRV2	0.00	0.00	-	4.105	RAJI	>	10.0	2.44	09/18/87
AVS-2639	SI	HIV	-	-	<	0.100	HELAT	-	32.0	320.00	10/12/87
AVS-2639	PR	MLV1	-	-	-	1.834	SC1	-	100.0	54.52	10/02/87
AVS-2639	PR	MLV1	-	-	-	1.223	SC1	>	10.0	8.18	10/27/87
AVS-3591	CPE	HIV	0.70	0.23	-	0.000	ATHB	-	32.0	0.00	07/08/87

SUMMARY OF ANITVIRAL TEST RESULTS(AIDS)--CONTRACT DAMD17-86-C-6013 (SciRI)

SHIPMENT NO. 3

AVS NO.	PROTOCOL	VIRUS	VR	VR*	ID50	CELL	MTC	TI	DATE
AVS-0001	CPE	FeLV	2.30	0.77	3.200	B1C	3.2	1.00	11/07/86
AVS-0001	CPE	HIV	1.45	0.48	0.796	ATH8	3.2	4.02	01/26/87
AVS-0001	CPE	HIV	2.00	0.67	0.000	ATH8	10.0	0.00	07/08/87
AVS-0001	SI	SRV2	0.00	0.00	25.01	RAJI	320.0	12.31	09/18/87
AVS-0001	SI	SRV2	0.00	0.00	0.175	RAJI	10.0	57.22	10/02/87
AVS-0001	SI	HIV	-	-	0.230	HELAT	32.0	139.19	10/12/87
AVS-0001	PR	MLV1	-	-	0.546	SCI	3.2	5.86	10/27/87
AVS-0070	CPE	FeLV	1.30	0.43	0.700	B1C	0.1	0.14	11/07/86
AVS-0070	CPE	HIV	0.00	0.00	0.000	ATH8	0.1	0.00	09/10/87
AVS-0070	CPE	HIV	0.00	0.00	0.000	ATH8	0.0	0.00	10/06/87
AVS-0070	CPE	HIV	0.00	0.00	-	ATH8	0.1	-	11/06/87
AVS-0079	CPE	FeLV	1.50	0.50	0.320	B1C	1.0	3.13	11/07/86
AVS-0079	CPE	HIV	0.00	0.00	0.000	ATH8	0.1	0.00	01/29/87
AVS-0111	CPE	FeLV	1.60	0.53	3.141	B1C	3.2	1.02	11/07/86
AVS-0111	CPE	HIV	0.00	0.00	0.000	ATH8	1.0	0.00	01/29/87
AVS-0122	CPE	FeLV	2.55	0.85	1.000	B1C	0.3	0.32	11/07/86
AVS-0122	CPE	HIV	0.00	0.00	0.000	ATH8	0.1	0.00	01/26/87
AVS-0136	CPE	FeLV	1.22	0.41	0.000	B1C	32.0	0.00	11/14/86
AVS-0136	CPE	FeLV	0.00	0.00	0.000	B1C	32.0	0.00	01/15/87
AVS-0136	CPE	FeLV	0.20	0.07	0.000	B1C	10.0	0.00	04/10/87
AVS-0136	CPE	HIV	0.00	0.00	0.000	ATH8	10.0	0.00	06/16/87
AVS-0148	CPE	FeLV	0.00	0.00	0.000	B1C	0.3	0.00	11/14/86
AVS-0148	CPE	FeLV	0.50	0.17	0.000	B1C	0.0	0.00	01/15/87
AVS-0148	CPE	HIV	0.00	0.00	0.000	ATH8	0.1	0.00	01/29/87
AVS-0200	CPE	FeLV	1.27	0.43	27.43	B1C	32.0	1.17	11/14/86
AVS-0200	CPE	FeLV	0.00	0.00	0.000	B1C	10.0	0.00	01/15/87
AVS-0200	CPE	FeLV	0.50	0.17	0.000	B1C	32.0	0.00	04/10/87
AVS-0200	CPE	HIV	0.00	0.00	0.000	ATH8	0.3	0.00	06/16/87
AVS-0202	CPE	FeLV	1.45	0.48	0.000	B1C	32.0	0.00	11/14/86
AVS-0202	CPE	FeLV	0.00	0.00	0.000	B1C	32.0	0.00	01/15/87
AVS-0202	CPE	FeLV	0.30	0.10	0.000	B1C	32.0	0.00	04/10/87
AVS-0202	CPE	HIV	0.00	0.00	0.000	ATH8	32.0	0.00	01/29/87
AVS-0206	CPE	FeLV	1.88	0.63	15.80	B1C	32.0	2.03	11/14/86
AVS-0206	CPE	FeLV	0.00	0.00	0.000	B1C	3.2	0.00	01/15/87
AVS-0206	CPE	FeLV	0.10	0.03	0.000	B1C	10.0	0.00	04/10/87
AVS-0206	CPE	HIV	2.00	0.67	0.100	ATH8	10.0	100.00	01/29/87
AVS-0206	CPE	HIV	1.90	0.63	-	-	10.0	-	10/19/87
AVS-0215	CPE	FeLV	2.42	0.81	5.617	B1C	32.0	5.70	11/14/86
AVS-0215	CPE	FeLV	0.28	0.09	0.000	B1C	32.0	0.00	01/22/87
AVS-0215	CPE	FeLV	0.55	0.18	0.000	B1C	32.0	0.00	04/10/87
AVS-0215	CPE	HIV	0.70	0.23	0.000	ATH8	1.0	0.00	03/10/87

AVS-0222	CPE	FeLV	1.40	0.47	-	31.44	B1C	)	32.0	1.02	04/10/87
AVS-0222	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	0.0	0.00	09/10/87
AVS-0222	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	0.0	0.00	10/06/87
AVS-0222	CPE	HIV	0.00	0.00	-	-	ATHB	-	32.0	-	10/29/87
AVS-0222	CPE	FeLV	1.45	0.48	-	67.70	B1C	-	32.0	0.47	11/14/86
AVS-0222	CPE	FeLV	1.07	0.36	-	0.000	B1C	-	32.0	0.00	01/22/87
AVS-0245	CPE	FeLV	2.10	0.70	-	80.80	B1C	-	100.0	1.24	11/14/86
AVS-0245	CPE	FeLV	0.00	0.00	-	0.000	B1C	-	32.0	0.00	01/23/87
AVS-0245	CPE	FeLV	0.70	0.23	-	28.96	B1C	)	32.0	1.10	04/10/87
AVS-0245	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	32.0	0.00	06/16/87
AVS-0345	CPE	FeLV	1.27	0.43	-	17.80	B1C	-	32.0	1.80	11/14/86
AVS-0345	CPE	FeLV	0.15	0.05	-	10.00	B1C	-	10.0	1.00	01/23/87
AVS-0345	CPE	HIV	0.00	0.00	-	0.000	ATHB	±	0.1	0.00	06/16/87
AVS-0646	CPE	FeLV	0.95	0.32	-	2.580	B1C	-	3.2	1.24	11/14/86
AVS-0646	CPE	FeLV	1.20	0.40	-	0.000	B1C	)	1.0	0.00	01/29/87
AVS-0646	CPE	HIV	0.70	0.23	-	0.000	ATHB	-	1.0	0.00	03/10/87
AVS-0646	CPE	HIV	1.10	0.37	-	2.849	ATHB	-	1.0	0.35	07/23/87
AVS-0999	CPE	FeLV	2.65	0.88	-	14.80	B1C	-	100.0	6.76	11/14/86
AVS-0999	CPE	FeLV	1.30	0.43	-	0.000	B1C	-	32.0	0.00	01/29/87
AVS-0999	CPE	FeLV	1.25	0.42	-	11.47	B1C	)	32.0	2.79	04/10/87
AVS-0999	CPE	FeLV	1.59	0.53	-	3.929	B1C	)	10.0	2.55	07/10/87
AVS-0999	CPE	HIV	3.55	1.18	(	0.100	ATHB	-	100.0	1000.00	01/29/87
AVS-0999	CPE	HIV	1.88	0.63	-	2.194	ATHB	-	32.0	14.58	03/16/87
AVS-0999	SI	HIV	0.00	0.00	(	0.100	HELA-	)	32.0	320.00	04/20/87
AVS-0999	SI	HIV	0.00	0.00	-	0.000	HELA--	-	0.3	0.00	07/28/87
AVS-0999	SI	HIV	0.00	0.00	-	0.000	HELA--	-	10.0	0.00	07/28/87
AVS-0999	SI	HIV	0.00	0.00	-	21.95	HELA--	-	32.0	1.46	07/28/87
AVS-0999	SI	SRV2	0.00	0.00	-	0.000	RAJI	)	320.0	0.00	09/18/87
AVS-0999 ^a	CPE	HIV	2.50	0.83	)	32.00	ATHB	-	100.0	3.13	10/19/87
AVS-0999 ^b	CPE	HIV	2.70	0.90	)	0.320	ATHB	)	100.0	312.50	10/19/87
AVS-0999 ^c	CPE	HIV	3.10	1.03	)	3.200	ATHB	-	100.0	31.25	10/19/87
AVS-0999 ^d	CPE	HIV	3.30	1.10	)	0.320	ATHB	-	100.0	312.50	10/19/87
AVS-0999 ^e	CPE	HIV	3.20	1.07	)	3.200	ATHB	-	100.0	31.25	10/19/87

UPDATED: 11/23/87

- a = PAP-Base
 b = PAP-HCl
 c = Schinazi sample
 d = Original sample from Technassociates
 e = New sample from Technassociates

SUMMARY OF ANITVIRAL TEST RESULTS(AIDS)--CONTRACT DAMD17-86-C-6013 (S&RI)

SHIPMENT NO. 11

AVS NO.	PROTOCOL	VIRUS	VR	VR*	ID50	CELL	MTC	TI	DATE
AVS-2276	CPE	FeLV	1.00	0.33	0.000	81C	10.0	0.00	02/26/87
AVS-2276	CPE	HIV	4.32	1.44	0.201	ATH8	100.0	498.54	01/26/87
AVS-2276	CPE	HIV	0.00	0.00	0.000	ATH8	0.1	0.00	06/16/87
AVS-2276	CPE	HIV	0.50	0.17	0.000	ATH8	10.0	0.00	06/25/87
AVS-2276	CPE	HIV	0.00	0.00	0.000	ATH8	32.0	0.00	06/30/87
AVS-2277	CPE	FeLV	0.00	0.00	0.000	81C	3.2	0.00	02/06/87
AVS-2277	CPE	HIV	0.70	0.23	0.000	ATH8	100.0	0.00	02/13/87
AVS-2277	CPE	HIV	0.00	0.00	0.000	ATH8	3.2	0.00	06/16/87
AVS-2278	CPE	FeLV	0.15	0.05	0.000	81C	3.2	0.00	02/06/87
AVS-2278	CPE	HIV	1.40	0.47	1.788	ATH8	100.0	55.93	02/13/87
AVS-2278	CPE	HIV	0.00	0.00	0.000	ATH8	0.1	0.00	06/17/87
AVS-2279	CPE	FeLV	0.45	0.15	0.000	81C	3.2	0.00	07/10/87
AVS-2279	CPE	HIV	0.20	0.07	0.000	ATH8	32.0	0.00	02/13/87
AVS-2279	CPE	HIV	0.00	0.00	0.000	ATH8	1.0	0.00	06/17/87
AVS-2280	CPE	FeLV	3.25	1.08	4.515	81C	100.0	22.15	02/26/87
AVS-2280	CPE	HIV	0.60	0.20	0.000	ATH8	100.0	0.00	02/13/87
AVS-2280	CPE	HIV	0.00	0.00	0.000	ATH8	3.2	0.00	06/17/87
AVS-2281	CPE	FeLV	1.10	0.37	100.0	81C	32.0	0.32	02/27/87
AVS-2281	CPE	HIV	0.50	0.17	0.000	ATH8	100.0	0.00	02/13/87
AVS-2281	CPE	HIV	0.00	0.00	0.000	ATH8	3.2	0.00	06/17/87
AVS-2282	CPE	FeLV	0.24	0.08	0.000	81C	10.0	0.00	01/16/87
AVS-2282	CPE	FeLV	0.75	0.25	0.000	81C	32.0	0.00	02/27/87
AVS-2282	CPE	HIV	0.00	0.00	0.000	ATH8	1.0	0.00	06/17/87
AVS-2283	CPE	FeLV	1.10	0.37	14.39	81C	10.0	0.69	02/27/87
AVS-2283	CPE	HIV	0.00	0.00	0.000	ATH8	0.1	0.00	06/17/87
AVS-2284	CPE	FeLV	1.05	0.35	0.000	81C	100.0	0.00	02/27/87
AVS-2284	CPE	HIV	0.00	0.00	0.000	ATH8	0.0	0.00	09/10/87
AVS-2284	CPE	HIV	0.00	0.00	0.000	ATH8	0.0	0.00	10/06/87
AVS-2284	CPE	HIV	0.00	0.00	-	ATH8	100.0	-	11/06/87
AVS-2285	CPE	FeLV	1.19	0.40	29.85	81C	32.0	1.07	07/10/87
AVS-2285	CPE	HIV	4.40	1.47	0.394	ATH8	100.0	253.48	02/03/87
AVS-2285	CPE	HIV	1.70	0.57	0.000	ATH8	100.0	0.00	07/01/87
AVS-2285	SI	HIV	-	-	-	HELAT	32.0	-	10/12/87
AVS-2285	SI	SRV2	0.00	0.00	28.20	RAJI	320.0	11.35	10/02/87
AVS-2286	CPE	FeLV	0.69	0.23	0.000	81C	32.0	0.00	07/10/87
AVS-2286	CPE	HIV	0.80	0.27	5.657	ATH8	32.0	5.66	02/03/87
AVS-2287	CPE	FeLV	0.56	0.19	29.47	81C	10.0	0.34	01/16/87
AVS-2287	CPE	HIV	0.20	0.07	0.000	ATH8	10.0	0.00	02/03/87
AVS-2288	CPE	FeLV	0.60	0.20	0.000	81C	3.2	0.00	01/29/87
AVS-2288	CPE	HIV	0.20	0.07	0.000	ATH8	10.0	0.00	02/03/87

AVS-2289	CPE	FeLV	0.40	0.13	-	0.000	B1C	-	0.1	0.00	01/29/87
AVS-2289	CPE	HIV	0.30	0.10	-	0.000	ATHB	-	10.0	0.00	02/03/87
AVS-2290	CPE	FeLV	0.50	0.17	-	0.000	B1C	-	1.0	0.00	01/29/87
AVS-2290	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	3.2	0.00	02/03/87
AVS-2291	CPE	FeLV	1.75	0.58	-	4.590	B1C	-	32.0	6.97	07/17/87
AVS-2291	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	0.0	0.00	09/10/87
AVS-2291	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	0.0	0.00	10/06/87
AVS-2291	CPE	HIV	0.00	0.00	-	-	ATHB	-	32.0	-	11/06/87
AVS-2292	CPE	FeLV	0.20	0.07	-	0.000	B1C	<	100.0	0.00	07/17/87
AVS-2292	CPE	HIV	0.00	0.00	-	0.000	ATHB	Δ	0.1	0.00	09/10/87
AVS-2292	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	0.0	0.00	10/06/87
AVS-2292	CPE	HIV	0.00	0.00	-	-	ATHB	-	0.3	-	10/29/87
AVS-2293	CPE	FeLV	0.95	0.32	-	0.000	B1C	-	32.0	0.00	02/05/87
AVS-2293	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	0.0	0.00	09/11/87
AVS-2293	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	0.0	0.00	10/06/87
AVS-2293	CPE	HIV	0.00	0.00	-	-	ATHB	-	100.0	-	11/09/87
AVS-2294	CPE	FeLV	0.98	0.33	-	0.000	B1C	-	0.1	0.00	02/05/87
AVS-2294	CPE	HIV	0.00	0.00	-	0.000	ATHB	<	3.2	0.00	02/04/87
AVS-2295	CPE	FeLV	0.30	0.10	-	0.000	B1C	<	3.2	0.00	07/17/87
AVS-2295	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	3.2	0.00	02/04/87
AVS-2295	CPE	HIV	0.10	0.03	-	0.000	ATHB	-	1.0	0.00	03/10/87
AVS-2296	CPE	FeLV	0.40	0.13	-	1.713	B1C	-	1.0	0.58	02/05/87
AVS-2296	CPE	HIV	0.00	0.00	-	0.000	ATHB	<	1.0	0.00	02/04/87
AVS-2297	CPE	FeLV	0.00	0.00	-	0.000	B1C	-	0.3	0.00	02/06/87
AVS-2297	CPE	HIV	0.40	0.13	-	0.000	ATHB	-	10.0	0.00	02/04/87
AVS-2297	CPE	HIV	0.30	0.10	-	0.000	ATHB	-	3.2	0.00	03/11/87
AVS-2298	CPE	FeLV	0.00	0.00	-	0.000	B1C	-	0.1	0.00	02/06/87
AVS-2298	CPE	HIV	0.20	0.07	-	0.000	ATHB	-	1.0	0.00	02/04/87
AVS-2299	CPE	FeLV	0.00	0.00	-	0.000	B1C	-	0.3	0.00	02/06/87
AVS-2299	CPE	HIV	0.90	0.30	-	6.523	ATHB	-	32.0	4.91	02/04/87
AVS-2300	CPE	FeLV	1.34	0.45	-	0.000	B1C	<	320.0	0.00	07/17/87
AVS-2300	CPE	HIV	0.00	0.00	-	0.000	ATHB	<	3.2	0.00	01/26/87
AVS-2301	CPE	FeLV	0.75	0.25	-	4.647	B1C	-	10.0	2.15	07/17/87
AVS-2302	CPE	FeLV	0.00	0.00	-	0.000	B1C	<	0.3	0.00	07/31/87
AVS-2302	CPE	HIV	0.30	0.10	-	0.000	ATHB	<	1.0	0.00	02/05/87
AVS-2302	CPE	HIV	0.55	0.18	-	0.000	ATHB	-	0.3	0.00	03/11/87
AVS-2303	CPE	FeLV	0.85	0.28	-	0.000	B1C	-	320.0	0.00	07/31/87
AVS-2303	CPE	HIV	0.10	0.03	-	0.000	ATHB	>	100.0	0.00	02/05/87
AVS-2304	CPE	FeLV	0.38	0.13	-	0.000	B1C	-	320.0	0.00	07/31/87
AVS-2304	CPE	HIV	0.15	0.05	-	0.000	ATHB	-	1.0	0.00	02/05/87
AVS-2305	CPE	FeLV	0.08	0.03	-	0.000	B1C	-	320.0	0.00	07/31/87
AVS-2305	CPE	HIV	0.00	0.00	-	0.000	ATHB	Δ	0.1	0.00	02/05/87

AVS-2306	CPE	FeLV	0.68	0.23	-	0.000	81C	-	32.0	0.00	01/16/87
AVS-2306	CPE	HIV	0.10	0.03	-	0.000	ATH8	>	100.0	0.00	02/05/87
AVS-2307	CPE	FeLV	0.58	0.19	-	0.000	81C	-	32.0	0.00	01/16/87
AVS-2307	CPE	HIV	0.20	0.07	-	0.000	ATH8	-	10.0	0.00	02/05/87
AVS-2308	CPE	FeLV	0.43	0.14	-	0.126	81C	-	0.1	0.80	01/16/87
AVS-2308	CPE	HIV	0.30	0.10	-	0.000	ATH8	-	10.0	0.00	02/05/87
AVS-2309	CPE	FeLV	0.10	0.03	-	0.000	81C	-	3.2	0.00	02/05/87
AVS-2309	CPE	HIV	0.00	0.00	-	0.000	ATH8	<	0.1	0.00	02/05/87
AVS-2310	CPE	FeLV	0.02	0.01	-	0.000	81C	-	10.0	0.00	01/22/87
AVS-2310	CPE	HIV	0.70	0.23	-	0.000	ATH8	-	10.0	0.00	03/17/87
AVS-2349	CPE	FeLV	0.73	0.24	-	0.859	81C	-	1.0	1.16	01/22/87
AVS-2349	CPE	HIV	0.00	0.00	-	0.000	ATH8	±	0.1	0.00	03/22/87
AVS-2353	CPE	FeLV	2.25	0.75	-	9.685	81C	-	100.0	10.32	02/26/87
AVS-2353	CPE	HIV	4.20	1.40	<	0.100	ATH8	>	100.0	1000.00	01/26/87
AVS-2353	CPE	HIV	0.00	0.00	-	0.000	ATH8	<	0.1	0.00	06/16/87
AVS-2353	CPE	HIV	2.20	0.73	-	12.14	ATH8	>	100.0	8.24	07/01/87
AVS-2353	SI	HIV	0.00	0.00	-	0.538	HELA	->	32.0	59.48	04/20/87
AVS-2354	CPE	FeLV	0.50	0.17	-	26.98	81C	-	32.0	1.19	08/07/87
AVS-2354	CPE	HIV	0.90	0.30	-	0.239	ATH8	-	10.0	41.81	01/26/87
AVS-2354	CPE	HIV	0.50	0.17	-	0.000	ATH8	-	10.0	0.00	07/01/87

UPDATED: 10/28/87

SUMMARY OF ANITVIRAL TEST RESULTS (AIDS)--CONTRACT DAMD17-86-C-6013 (SciRI)

SHIPMENT NO. 12

AVS NO.	PROTOCOL	VIRUS	VR	VR*	ID50	CELL	MTC	TI	DATE		
AVS-2260	CPE	FeLV	0.34	0.11	-	0.000	81C	-	32.0	0.00	01/23/87
AVS-2260	CPE	FeLV	0.30	0.10	-	0.000	81C	-	100.0	0.00	03/02/87
AVS-2260	CPE	HIV	0.00	0.00	-	0.000	ATH8	>	100.0	0.00	06/16/87
AVS-2261	CPE	FeLV	-0.02	-0.01	-	38.96	81C	-	32.0	0.82	01/23/87
AVS-2261	CPE	FeLV	0.20	0.07	-	0.000	81C	-	100.0	0.00	03/02/87
AVS-2261	CPE	HIV	0.00	0.00	-	0.000	ATH8	-	32.0	0.00	06/16/87
AVS-2262	CPE	FeLV	-0.02	-0.01	-	0.000	81C	-	32.0	0.00	01/23/87
AVS-2262	CPE	FeLV	0.05	0.02	-	0.000	81C	-	32.0	0.00	03/02/87
AVS-2262	CPE	HIV	0.00	0.00	-	0.000	ATH8	-	100.0	0.00	06/16/87
AVS-2263	CPE	FeLV	0.35	0.12	-	320.0	81C	-	100.0	0.31	08/07/87
AVS-2263	CPE	HIV	0.10	0.03	-	0.000	ATH8	-	32.0	0.00	03/17/87
AVS-2264	CPE	FeLV	0.15	0.05	-	0.000	81C	-	100.0	0.00	03/02/87
AVS-2264	CPE	HIV	0.00	0.00	-	0.000	ATH8	>	100.0	0.00	06/16/87
AVS-2274	CPE	FeLV	0.00	0.00	-	0.000	81C	-	10.0	0.00	03/02/87
AVS-2274	CPE	HIV	1.20	0.40	-	0.320	ATH8	-	3.2	10.00	03/11/87
AVS-2274	CPE	HIV	0.00	0.00	-	0.000	ATH8	<	100.0	0.00	06/30/87
AVS-2275	CPE	FeLV	0.35	0.12	-	0.000	81C	-	10.0	0.00	02/05/87
AVS-2275	CPE	HIV	1.00	0.33	-	0.000	ATH8	-	10.0	0.00	03/16/87
AVS-2275	CPE	HIV	0.00	0.00	-	0.000	ATH8	-	32.0	0.00	06/30/87

UPDATED: 10/28/87

SUMMARY OF ANITVIRAL TEST RESULTS (AIDS) -- CONTRACT DAMD17-86-C-6013 (S&RI)

SHIPMENT NO. 13

AVS NO.	PROTOCOL	VIRUS	VR	VR*	ID50	CELL	MTC	TI	DATE
AVS-0801	CPE	FeLV	0.36	0.12	0.000	81C	3.2	0.00	02/27/87
AVS-0801	CPE	FeLV	0.80	0.27	1.215	81C	1.0	0.82	08/07/87
AVS-0801	CPE	HIV	0.85	0.28	0.100	ATH8	0.3	3.20	03/11/87
AVS-2311	CPE	HIV	0.00	0.00	0.000	ATH8	0.0	0.00	09/11/87
AVS-2311	CPE	HIV	0.00	0.00	0.000	ATH8	0.0	0.00	10/06/87
AVS-2312	CPE	FeLV	0.20	0.07	0.000	81C	320.0	0.00	08/07/87
AVS-2312	CPE	HIV	0.00	0.00	0.000	ATH8	100.0	0.00	03/11/87
AVS-2313	CPE	HIV	0.00	0.00	0.000	ATH8	0.3	0.00	03/17/87
AVS-2314	CPE	HIV	0.50	0.17	0.000	ATH8	100.0	0.00	06/17/87
AVS-2315	CPE	HIV	0.00	0.00	0.000	ATH8	10.0	0.00	03/12/87
AVS-2316	CPE	HIV	0.00	0.00	0.000	ATH8	0.0	0.00	09/11/87
AVS-2316	CPE	HIV	-	-	-	ATH8	-	-	10/12/87
AVS-2316	CPE	HIV	-	-	-	ATH8	-	-	10/21/87
AVS-2316	CPE	HIV	0.00	0.00	-	ATH8	100.0	-	11/06/87
AVS-2317	CPE	HIV	0.00	0.00	0.000	ATH8	0.0	0.00	09/11/87
AVS-2317	CPE	HIV	-	-	-	ATH8	-	-	10/12/87
AVS-2317	CPE	HIV	-	-	-	ATH8	-	-	10/21/87
AVS-2318	CPE	HIV	0.30	0.10	0.000	ATH8	0.3	0.00	03/17/87
AVS-2319	CPE	HIV	0.00	0.00	0.000	ATH8	3.2	0.00	03/12/87
AVS-2320	CPE	HIV	0.00	0.00	0.000	ATH8	0.3	0.00	03/17/87
AVS-2321	CPE	HIV	0.00	0.00	0.000	ATH8	0.1	0.00	03/12/87
AVS-2322	CPE	HIV	0.00	0.00	0.000	ATH8	32.0	0.00	03/17/87
AVS-2323	CPE	HIV	0.15	0.05	0.000	ATH8	0.3	0.00	03/17/87
AVS-2324	CPE	HIV	0.00	0.00	0.000	ATH8	0.3	0.00	03/12/87
AVS-2325	CPE	HIV	1.60	0.53	0.000	ATH8	100.0	0.00	03/17/87
AVS-2326	CPE	HIV	0.80	0.27	0.000	ATH8	100.0	0.00	03/12/87
AVS-2327	CPE	HIV	0.30	0.10	0.000	ATH8	10.0	0.00	03/19/87
AVS-2328	CPE	HIV	0.50	0.17	0.000	ATH8	1.0	0.00	03/12/87
AVS-2329	CPE	HIV	0.00	0.00	0.000	ATH8	0.3	0.00	03/12/87
AVS-2330	CPE	HIV	0.00	0.00	0.000	ATH8	3.2	0.00	06/17/87
AVS-2331	CPE	HIV	0.05	0.02	0.000	ATH8	0.1	0.00	06/17/87
AVS-2332	CPE	HIV	1.70	0.57	0.000	ATH8	100.0	0.00	03/11/87
AVS-2332	CPE	HIV	1.80	0.60	0.000	ATH8	100.0	0.00	06/25/87

359

AVS-2332	CPE	HIV	1.10	0.37	-	0.000	ATHB	>	100.0	0.00	07/01/87
AVS-2332	CPE	HIV	2.00	0.67	-	5.657	ATHB	-	100.0	17.68	07/08/87
AVS-2332	SI	HIV	-	-	-	-	HELAT	>	100.0	-	10/12/87
AVS-2333	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	10.0	0.00	03/11/87
AVS-2334	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	1.0	0.00	03/11/87
AVS-2335	CPE	HIV	0.50	0.17	-	0.000	ATHB	>	100.0	0.00	03/18/87
AVS-2336	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	3.2	0.00	03/11/87
AVS-2337	CPE	HIV	0.70	0.23	-	0.000	ATHB	-	32.0	0.00	03/16/87
AVS-2338	CPE	HIV	0.30	0.10	-	0.000	ATHB	-	32.0	0.00	03/16/87
AVS-2339	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	10.0	0.00	06/17/87
AVS-2340	CPE	HIV	1.50	0.50	-	9.491	ATHB	>	100.0	10.54	03/19/87
AVS-2340	CPE	HIV	1.30	0.43	-	0.000	ATHB	>	100.0	0.00	07/01/87
AVS-2340	SI	HIV	-	-	-	2.683	HELAT		32.0	11.9	03/22/87
AVS-2341	CPE	HIV	0.00	0.00	-	0.000	ATHB	<	0.1	0.00	03/19/87
AVS-2342	CPE	HIV	0.00	0.00	-	0.000	ATHB	±	0.1	0.00	03/22/87
AVS-2343	CPE	HIV	0.10	0.03	-	0.000	ATHB	<	0.3	0.00	03/11/87
AVS-2344	CPE	HIV	0.00	0.00	-	0.000	ATHB	<	0.1	0.00	03/19/87
AVS-2345	CPE	HIV	0.00	0.00	-	0.000	ATHB	<	0.1	0.00	03/19/87
AVS-2346	CPE	HIV	0.80	0.27	-	0.000	ATHB	>	100.0	0.00	03/22/87
AVS-2347	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	32.0	0.00	03/19/87
AVS-2348	CPE	HIV	0.85	0.28	-	100.0	ATHB	-	3.2	0.03	03/22/87
AVS-2352	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	100.0	0.00	03/23/87

UPDATED: 11/23/87

SUMMARY OF ANITVIRAL TEST RESULTS (AIDS) -- CONTRACT DAMD17-86-C-6013 (Seri)

SHIPMENT NO. 15

AVS NO.	PROTOCOL	VIRUS	VR	VR*	ID50	CELL	MTC	T1	DATE
AVS-2068	CPE	HIV	0.00	0.00	0.000	ATH8	100.0	0.00	07/24/87
AVS-2069	CPE	HIV	0.00	0.00	0.000	ATH8	100.0	0.00	07/24/87
AVS-2355	CPE	HIV	0.32	0.11	0.000	ATH8	0.1	0.00	03/22/87
AVS-2356	CPE	HIV	0.05	0.02	0.000	ATH8	0.3	0.00	03/18/87
AVS-2357	CPE	HIV	0.00	0.00	0.000	ATH8	32.0	0.00	06/17/87
AVS-2357	CPE	HIV	0.00	0.00	0.000	ATH8	10.0	0.00	07/24/87
AVS-2358	CPE	FeLV	0.00	0.00	0.000	81C	10.0	0.00	09/11/87
AVS-2358	CPE	HIV	1.10	0.37	0.100	ATH8	1.0	10.00	03/18/87
AVS-2358	CPE	HIV	1.20	0.40	42.51	ATH8	100.0	2.35	07/01/87
AVS-2359	CPE	HIV	0.80	0.27	0.178	ATH8	3.2	17.98	03/18/87
AVS-2359	CPE	HIV	0.00	0.00	0.000	ATH8	0.1	0.00	07/06/87
AVS-2360	CPE	HIV	0.00	0.00	0.000	ATH8	3.2	0.00	07/24/87
AVS-2363	CPE	HIV	0.00	0.00	0.000	ATH8	32.0	0.00	07/24/87
AVS-2364	CPE	HIV	0.00	0.00	0.000	ATH8	10.0	0.00	07/24/87
AVS-2365	CPE	HIV	1.80	0.60	0.000	ATH8	100.0	0.00	03/22/87
AVS-2365	CPE	HIV	1.45	0.48	22.91	ATH8	100.0	4.37	06/30/87
AVS-2365	CPE	HIV	0.50	0.17	0.000	ATH8	100.0	0.00	07/01/87
AVS-2365	CPE	HIV	1.30	0.43	0.000	ATH8	100.0	0.00	07/08/87
AVS-2366	CPE	HIV	0.00	0.00	0.000	ATH8	3.2	0.00	03/22/87
AVS-2367	CPE	HIV	0.60	0.20	0.000	ATH8	1.0	0.00	03/22/87
AVS-2368	CPE	HIV	0.20	0.07	0.000	ATH8	1.0	0.00	03/22/87
AVS-2368	CPE	HIV	0.00	0.00	0.000	ATH8	0.3	0.00	07/24/87
AVS-2369	CPE	HIV	0.00	0.00	0.000	ATH8	100.0	0.00	03/23/87
AVS-2370	CPE	HIV	0.30	0.10	0.000	ATH8	100.0	0.00	03/22/87
AVS-2371	CPE	HIV	0.00	0.00	0.000	ATH8	32.0	0.00	06/19/87
AVS-2372	CPE	HIV	0.00	0.00	0.000	ATH8	0.1	0.00	06/19/87
AVS-2373	CPE	HIV	0.00	0.00	0.000	ATH8	0.1	0.00	06/19/87
AVS-2374	CPE	HIV	0.00	0.00	0.000	ATH8	3.2	0.00	06/19/87
AVS-2375	CPE	HIV	0.00	0.00	0.000	ATH8	3.2	0.00	06/19/87

361

AVS-2376	CPE	HIV	0.00	0.00	-	0.000	ATHB \leq	0.1	0.00	06/19/87
AVS-2377	CPE	HIV	0.00	0.00	-	0.000	ATHB \leq	0.1	0.00	06/19/87
AVS-2378	CPE	HIV	0.00	0.00	-	0.000	ATHB -	10.0	0.00	06/19/87
AVS-2379	CPE	HIV	0.00	0.00	-	0.000	ATHB -	32.0	0.00	03/23/87
AVS-2380	CPE	HIV	0.00	0.00	-	0.000	ATHB -	32.0	0.00	03/23/87

UPDATED: 10/28/87

SUMMARY OF ANITVIRAL TEST RESULTS(AIDS)--CONTRACT DAMD17-86-C-6013 (S&RI)

SHIPMENT NO. 16

AVS NO.	PROTOCOL	VIRUS	VR	VR*	ID50	CELL	MTC	TI	DATE
AVS-2361	CPE	HIV	0.00	0.00	0.000	ATHB -	100.0	0.00	05/14/87
AVS-2362	CPE	HIV	0.00	0.00	0.000	ATHB)	100.0	0.00	05/14/87
AVS-2381	CPE	HIV	0.00	0.00	0.000	ATHB -	1.0	0.00	03/23/87
AVS-2382	CPE	HIV	0.00	0.00	0.000	ATHB -	1.0	0.00	03/23/87
AVS-2383	CPE	HIV	0.00	0.00	0.000	ATHB -	10.0	0.00	03/23/87
AVS-2384	CPE	HIV	0.00	0.00	0.000	ATHB ±	0.1	0.00	06/19/87
AVS-2385	CPE	HIV	0.00	0.00	0.000	ATHB <	0.1	0.00	06/19/87
AVS-2386	CPE	HIV	0.00	0.00	0.000	ATHB <	0.1	0.00	06/19/87
AVS-2387	CPE	HIV	0.55	0.18	0.000	ATHB -	1.0	0.00	07/24/87
AVS-2388	CPE	HIV	0.00	0.00	0.000	ATHB -	100.0	0.00	05/14/87
AVS-2389	CPE	HIV	0.00	0.00	0.000	ATHB -	32.0	0.00	07/24/87
AVS-2390	CPE	HIV	0.00	0.00	0.000	ATHB -	0.3	0.00	05/14/87
AVS-2391	CPE	HIV	0.00	0.00	0.000	ATHB -	100.0	0.00	07/24/87
AVS-2392	CPE	HIV	0.55	0.18	0.000	ATHB -	32.0	0.00	05/14/87
AVS-2393	CPE	HIV	1.90	0.63	0.566	ATHB -	32.0	56.57	07/22/87
AVS-2393	CPE	HIV	0.00	0.00	0.000	ATHB -	0.0	0.00	09/30/87
AVS-2393	CPE	HIV	3.30	1.10	59.22	ATHB	100.0	1.69	10/19/87
AVS-2394	CPE	HIV	2.80	0.93	0.994	ATHB -	32.0	32.21	07/22/87
AVS-2394	CPE	HIV	0.00	0.00	0.000	ATHB -	0.0	0.00	09/30/87
AVS-2395	CPE	HIV	0.00	0.00	0.000	ATHB -	10.0	0.00	07/22/87
AVS-2396	CPE	HIV	3.20	1.07	4.707	ATHB)	100.0	21.24	07/22/87
AVS-2396	CPE	HIV	0.00	0.00	0.000	ATHB -	0.0	0.00	09/30/87
AVS-2397	CPE	HIV	1.10	0.37	16.69	ATHB -	32.0	1.92	07/22/87
AVS-2397	CPE	HIV	0.00	0.00	0.000	ATHB -	0.0	0.00	09/30/87
AVS-2397	CPE	HIV	2.40	0.80	-	ATHB	32.0	-	10/19/87
AVS-2398	CPE	HIV	0.60	0.20	0.000	ATHB -	32.0	0.00	09/17/87
AVS-2399	CPE	HIV	0.40	0.13	0.000	ATHB)	100.0	0.00	05/14/87
AVS-2400	CPE	HIV	0.00	0.00	0.000	ATHB)	100.0	0.00	03/23/87
AVS-2400	CPE	HIV	0.00	0.00	0.000	ATHB -	10.0	0.00	09/17/87
AVS-2401	CPE	HIV	0.35	0.12	0.000	ATHB ±	0.1	0.00	07/22/87

AVS-2402	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	1.0	0.00	07/22/87
AVS-2403	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	32.0	0.00	05/14/87
AVS-2404	CPE	HIV	0.97	0.32	-	0.000	ATHB	-	10.0	0.00	05/15/87
AVS-2404	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	10.0	0.00	07/24/87
AVS-2405	CPE	HIV	0.45	0.15	-	0.000	ATHB	-	3.2	0.00	05/15/87
AVS-2406	CPE	HIV	1.40	0.47	-	0.000	ATHB	-	10.0	0.00	05/15/87
AVS-2407	CPE	HIV	1.70	0.57	-	0.918	ATHB	-	10.0	10.90	05/15/87
AVS-2407	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	32.0	0.00	07/06/87
AVS-2408	CPE	HIV	1.10	0.37	-	0.000	ATHB	<	100.0	0.00	05/15/87
AVS-2408	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	100.0	0.00	07/06/87
AVS-2409	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	0.3	0.00	09/17/87
AVS-2410	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	0.3	0.00	06/22/87

UPDATED: 11/23/87

SUMMARY OF ANITVIRAL TEST RESULTS (AIDS) -- CONTRACT DAMD17-86-C-6013 (ScRI)

SHIPMENT NO. 17

AVS NO.	PROTOCOL	VIRUS	VR	VR*	ID50	CELL	MTC	TI	DATE
AVS-1569	CPE	HIV	0.00	0.00	0.000	ATHB	3.2	0.00	06/22/87
AVS-2411	CPE	HIV	0.00	0.00	0.000	ATHB	1.0	0.00	06/22/87
AVS-2412	CPE	HIV	0.00	0.00	0.000	ATHB	3.2	0.00	06/22/87
AVS-2413	CPE	HIV	0.00	0.00	0.000	ATHB	1.0	0.00	06/22/87
AVS-2414	CPE	HIV	0.00	0.00	0.000	ATHB	3.2	0.00	06/22/87
AVS-2415	CPE	HIV	0.00	0.00	0.000	ATHB	32.0	0.00	06/22/87
AVS-2416	CPE	HIV	0.00	0.00	0.000	ATHB	1.0	0.00	06/22/87
AVS-2417	CPE	HIV	0.00	0.00	0.000	ATHB	32.0	0.00	06/22/87
AVS-2418	CPE	HIV	0.00	0.00	0.000	ATHB	32.0	0.00	06/22/87
AVS-2419	CPE	HIV	0.00	0.00	0.000	ATHB	100.0	0.00	06/22/87
AVS-2420	CPE	HIV	0.00	0.00	0.000	ATHB	10.0	0.00	06/22/87
AVS-2421	CPE	HIV	0.00	0.00	0.000	ATHB	0.1	0.00	06/29/87
AVS-2422	CPE	HIV	1.40	0.47	29.58	ATHB	100.0	3.38	06/29/87
AVS-2422	CPE	HIV	0.00	0.00	0.000	ATHB	0.0	0.00	09/30/87
AVS-2423	CPE	HIV	0.00	0.00	0.000	ATHB	3.2	0.00	06/29/87
AVS-2424	CPE	HIV	0.00	0.00	0.000	ATHB	32.0	0.00	06/29/87
AVS-2425	CPE	HIV	0.00	0.00	0.000	ATHB	1.0	0.00	09/17/87
AVS-2426	CPE	HIV	0.00	0.00	0.000	ATHB	0.3	0.00	09/17/87
AVS-2427	CPE	HIV	0.00	0.00	0.000	ATHB	0.1	0.00	09/17/87
AVS-2428	CPE	HIV	0.00	0.00	0.000	ATHB	0.1	0.00	09/17/87
AVS-2429	CPE	HIV	0.00	0.00	0.000	ATHB	3.2	0.00	09/17/87
AVS-2430	CPE	HIV	0.00	0.00	0.000	ATHB	1.0	0.00	09/17/87
AVS-2431	CPE	HIV	0.00	0.00	0.000	ATHB	0.3	0.00	09/17/87
AVS-2432	CPE	HIV	0.00	0.00	0.000	ATHB	0.0	0.00	09/26/87
AVS-2433	CPE	HIV	0.00	0.00	0.000	ATHB	0.0	0.00	09/26/87
AVS-2434	CPE	HIV	0.00	0.00	0.000	ATHB	0.0	0.00	09/26/87

365

AVS-2435	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	0.0	0.00	09/26/87
AVS-2436	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	10.0	0.00	06/30/87
AVS-2437	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	100.0	0.00	06/30/87
AVS-2438	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	10.0	0.00	06/30/87
AVS-2439	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	10.0	0.00	06/30/87
AVS-2440	CPE	HIV	0.00	0.00	-	0.000	ATHB	<	32.0	0.00	06/30/87

UPDATED: 10/28/87

SUMMARY OF ANITVIRAL TEST RESULTS(AIDS)--CONTRACT DAMD17-86-C-6013 (S&RI)

SHIPMENT NO. 18

AVS NO.	PROTOCOL	VIRUS	VR	VR*	ID50	CELL	MTC	TI	DATE
AVS-2441	CPE	HIV	0.00	0.00	0.000	ATH8 -	32.0	0.00	06/30/87
AVS-2442	CPE	HIV	0.00	0.00	0.000	ATH8 -	32.0	0.00	06/30/87
AVS-2443	CPE	HIV	0.00	0.00	0.000	ATH8 -	0.0	0.00	09/26/87
AVS-2444	CPE	HIV	1.65	0.55	7.190	ATH8 -	32.0	4.45	07/01/87
AVS-2444	CPE	HIV	0.00	0.00	0.000	ATH8 -	0.0	0.00	09/30/87
AVS-2445	CPE	HIV	1.00	0.33	0.000	ATH8 -	32.0	0.00	07/01/87
AVS-2446	CPE	HIV	0.00	0.00	0.000	ATH8 -	3.2	0.00	07/01/87
AVS-2447	CPE	HIV	0.70	0.23	0.000	ATH8 >	100.0	0.00	07/01/87
AVS-2448	CPE	HIV	1.05	0.35	0.000	ATH8 -	100.0	0.00	07/01/87
AVS-2449	CPE	HIV	0.60	0.20	0.000	ATH8 <	100.0	0.00	07/01/87
AVS-2450	CPE	HIV	0.00	0.00	0.000	ATH8 -	32.0	0.00	07/01/87
AVS-2451	CPE	HIV	0.00	0.00	0.000	ATH8 -	0.0	0.00	09/26/87
AVS-2452	CPE	HIV	0.50	0.17	0.000	ATH8 <	100.0	0.00	07/01/87
AVS-2453	CPE	HIV	0.00	0.00	0.000	ATH8 ±	0.1	0.00	07/01/87
AVS-2454	CPE	HIV	0.60	0.20	0.000	ATH8 -	100.0	0.00	07/01/87
AVS-2455	CPE	HIV	0.80	0.27	0.652	ATH8 -	10.0	15.33	07/01/87
AVS-2456	CPE	HIV	0.60	0.20	75.18	ATH8 >	100.0	1.33	07/01/87
AVS-2457	CPE	HIV	0.00	0.00	0.000	ATH8 -	1.0	0.00	07/01/87
AVS-2458	CPE	HIV	0.00	0.00	0.000	ATH8 -	0.0	0.00	09/26/87
AVS-2459	CPE	HIV	0.30	0.10	0.000	ATH8 >	100.0	0.00	07/01/87
AVS-2460	CPE	HIV	1.10	0.37	36.71	ATH8 >	100.0	2.72	07/01/87
AVS-2460	CPE	HIV	0.70	0.23	0.000	ATH8 -	3.2	0.00	07/02/87
AVS-2461	CPE	HIV	1.25	0.42	0.000	ATH8 -	10.0	0.00	07/02/87
AVS-2462	CPE	HIV	0.15	0.05	0.000	ATH8 -	0.3	0.00	07/02/87
AVS-2463	CPE	HIV	0.25	0.08	0.000	ATH8 -	10.0	0.00	07/02/87
AVS-2464	CPE	HIV	0.08	0.03	0.000	ATH8 -	10.0	0.00	07/02/87

367

AVS-2465	CPE	HIV	0.20	0.07	-	0.000	ATHB	-	10.0	0.00	07/02/87
AVS-2466	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	100.0	0.00	07/02/87
AVS-2467	CPE	HIV	0.20	0.07	-	0.000	ATHB	-	32.0	0.00	07/02/87
AVS-2468	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	32.0	0.00	07/02/87
AVS-2469	CPE	HIV	0.05	0.02	-	0.000	ATHB	-	32.0	0.00	07/02/87
AVS-2470	CPE	HIV	0.08	0.03	-	0.000	ATHB	-	1.0	0.00	07/02/87

UPDATED: 10/28/87

SUMMARY OF ANITVIRAL TEST RESULTS (AIDS) -- CONTRACT #AVL 17-86-C-6013 (SciRI)

SHIPMENT NO. 19

AVS NO.	PROTOCOL	VIRUS	VR	VR*	ID50	CELL	MTC	TI	DATE
AVS-2471	CPE	HIV	0.00	0.00	-	0.000	ATH8	32.0	0.00 07/06/87
AVS-2472	CPE	HIV	0.00	0.00	-	0.000	ATH8	100.0	0.00 07/06/87
AVS-2473	CPE	HIV	0.00	0.00	-	0.000	ATH8	100.0	0.00 07/06/87
AVS-2474	CPE	HIV	0.00	0.00	-	0.000	ATH8	10.0	0.00 07/06/87
AVS-2475	CPE	HIV	0.00	0.00	-	0.000	ATH8	32.0	0.00 07/06/87
AVS-2476	CPE	HIV	0.00	0.00	-	0.000	ATH8	100.0	0.00 07/06/87
AVS-2477	CPE	HIV	0.00	0.00	-	0.000	ATH8	100.0	0.00 07/06/87
AVS-2478	CPE	HIV	0.00	0.00	-	0.000	ATH8	1.0	0.00 07/06/87
AVS-2479	CPE	HIV	0.00	0.00	-	0.000	ATH8	0.1	0.00 07/14/87
AVS-2480	CPE	HIV	0.00	0.00	-	0.000	ATH8	10.0	0.00 07/14/87
AVS-2481	CPE	HIV	0.00	0.00	-	0.000	ATH8	0.0	0.00 09/26/87
AVS-2482	CPE	HIV	0.00	0.00	-	0.000	ATH8	0.0	0.00 09/26/87
AVS-2483	CPE	HIV	0.00	0.00	-	0.000	ATH8	0.0	0.00 09/26/87
AVS-2484	CPE	HIV	0.50	0.17	-	0.000	ATH8	100.0	0.00 05/22/87
AVS-2485	CPE	HIV	0.00	0.00	-	0.000	ATH8	100.0	0.00 05/22/87
AVS-2486	CPE	HIV	0.50	0.17	-	0.000	ATH8	32.0	0.00 05/22/87
AVS-2487	CPE	HIV	0.00	0.00	-	0.000	ATH8	100.0	0.00 05/22/87
AVS-2488	CPE	HIV	2.40	0.80	-	3.200	ATH8	32.0	10.00 06/01/87
AVS-2488	CPE	HIV	0.32	0.11	-	0.000	ATH8	32.0	0.00 07/09/87
AVS-2489	CPE	HIV	0.00	0.00	-	0.000	ATH8	0.3	0.00 06/01/87
AVS-2490	CPE	HIV	0.00	0.00	-	0.000	ATH8	32.0	0.00 06/01/87
AVS-2491	CPE	HIV	0.00	0.00	-	0.000	ATH8	32.0	0.00 06/01/87
AVS-2492	CPE	HIV	0.90	0.30	-	0.000	ATH8	32.0	0.00 06/01/87
AVS-2493	CPE	HIV	0.10	0.03	-	0.000	ATH8	32.0	0.00 06/01/87
AVS-2494	CPE	HIV	0.00	0.00	-	0.000	ATH8	32.0	0.00 06/01/87
AVS-2495	CPE	HIV	0.90	0.30	-	0.000	ATH8	0.3	0.00 06/01/87

369

AVS-2496	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	32.0	0.00	06/01/87
AVS-2497	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	100.0	0.00	06/01/87
AVS-2498	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	32.0	0.00	06/01/87
AVS-2499	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	0.0	0.00	09/26/87
AVS-2500	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	10.0	0.00	06/17/87
AVS-2501	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	10.0	0.00	06/17/87
AVS-2502	CPE	HIV	2.20	0.73	-	14.43	ATHB	>	100.0	6.93	06/17/87
AVS-2570	CPE	HIV	0.00	0.00	-		ATHB		10.0	-	10/29/87
AVS-2571	CPE	HIV	0.90	0.30	-		ATHB		32.0	-	10/29/87
AVS-2572	CPE	HIV	4.75	1.58	-	1.000	ATHB	-	100.0	100.00	06/05/87
AVS-2572	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	10.0	0.00	07/09/87
AVS-2572	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	0.0	0.00	09/10/87
AVS-2572	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	0.0	0.00	10/06/87
AVS-2572	CPE	HIV	0.00	0.00	-		ATHB		100.0	-	10/29/87
AVS-2573	CPE	HIV	2.50	0.83	-	8.065	ATHB	-	100.0	12.40	06/05/87
AVS-2574	CPE	HIV	3.60	1.20	-	1.559	ATHB	<	100.0	64.14	06/05/87
AVS-2574	CPE	HIV	0.55	0.18	-	0.000	ATHB	-	10.0	0.00	07/09/87
AVS-2575	CPE	HIV	4.50	1.50	-	1.456	ATHB	>	100.0	68.68	06/05/87
AVS-2576	CPE	HIV	5.15	1.72	-	1.000	ATHB	-	100.0	100.00	06/05/87
AVS-2576	CPE	HIV	3.05	1.02	-	2.434	ATHB	-	100.0	41.09	06/17/87
AVS-2577	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	10.0	0.00	06/05/87
AVS-2578	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	32.0	0.00	06/05/87
AVS-2579	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	32.0	0.00	06/05/87
AVS-2580	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	1.0	0.00	06/05/87
AVS-2581	CPE	HIV	3.35	1.12	-	3.200	ATHB	-	100.0	31.25	06/05/87
AVS-2581	CPE	HIV	0.40	0.13	-	0.000	ATHB	-	10.0	0.00	07/10/87
AVS-2582	CPE	HIV	2.70	0.90	-	10.00	ATHB	-	100.0	10.00	06/05/87
AVS-2583	CPE	HIV	0.90	0.30	-	21.70	ATHB	-	10.0	0.46	06/05/87
AVS-2584	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	32.0	0.00	06/05/87
AVS-2585	CPE	HIV	1.00	0.33	-	10.00	ATHB	-	10.0	1.00	06/05/87
AVS-2586	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	32.0	0.00	06/05/87
AVS-2587	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	1.0	0.00	06/05/87
AVS-2588	CPE	HIV	1.80	0.60	-	80.83	ATHB	-	100.0	1.24	06/05/87
AVS-2589	CPE	HIV	2.30	0.77	-	11.81	ATHB	-	100.0	8.47	06/05/87

AVS-2590	CPE	HIV	0.40	0.13	-	31.96	ATHB	-	32.0	1.00	06/05/87
AVS-2591	CPE	HIV	3.20	1.07	-	2.606	ATHB	<	100.0	38.38	06/05/87
AVS-2592	CPE	HIV	0.20	0.07	-	0.000	ATHB	-	100.0	0.00	06/05/87
AVS-2593	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	32.0	0.00	06/05/87
AVS-2594	CPE	HIV	0.30	0.10	-	0.000	ATHB	-	100.0	0.00	07/10/87
AVS-2595	CPE	HIV	0.00	0.00	-	0.000	ATHB	<	0.1	0.00	07/10/87
AVS-2596	CPE	HIV	0.35	0.12	-	0.000	ATHB	±	0.1	0.00	07/08/87
AVS-2597	CPE	HIV	0.65	0.22	-	0.000	ATHB	-	10.0	0.00	07/08/87
AVS-2598	CPE	HIV	0.00	0.00	-		ATHB		10.0	-	10/29/87
AVS-2599	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	0.3	0.00	06/09/87
AVS-2600	CPE	HIV	1.42	0.48	-	5.564	ATHB	-	32.0	5.75	06/09/87
AVS-2601	CPE	HIV	0.10	0.03	-	0.000	ATHB	-	3.2	0.00	06/09/87
AVS-2602	CPE	HIV	0.50	0.17	-	0.000	ATHB	-	10.0	0.00	06/09/87
AVS-2603	CPE	HIV	0.00	0.00	-	0.000	ATHB	±	0.1	0.00	06/09/87
AVS-2604	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	10.0	0.00	06/09/87
AVS-2605	CPE	HIV	0.00	0.00	-	0.000	ATHB	>	100.0	0.00	06/09/87
AVS-2606	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	32.0	0.00	06/09/87
AVS-2607	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	0.3	0.00	06/09/87
AVS-2608	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	100.0	0.00	06/09/87
AVS-2609	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	100.0	0.00	06/09/87
AVS-2610	CPE	HIV	0.00	0.00	-		ATHB		100.0	-	10/29/87
AVS-2611	CPE	HIV	0.20	0.07	-	0.000	ATHB	-	3.2	0.00	07/10/87
AVS-2612	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	0.3	0.00	07/10/87
AVS-2613	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	1.0	0.00	07/10/87
AVS-2614	CPE	HIV	0.25	0.08	-	0.000	ATHB	-	1.0	0.00	07/10/87
AVS-2615	CPE	HIV	0.20	0.07	-	0.000	ATHB	-	10.0	0.00	07/10/87
AVS-2616	CPE	HIV	0.00	0.00	-	0.000	ATHB	±	0.1	0.00	07/10/87
AVS-2617	CPE	HIV	0.26	0.09	-	0.000	ATHB	-	0.3	0.00	07/10/87
AVS-2618	CPE	HIV	0.45	0.15	-	0.000	ATHB	-	32.0	0.00	07/10/87
AVS-2619	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	3.2	0.00	07/10/87
AVS-2619	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	32.0	0.00	07/16/87

371

AVS-2620	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	100.0	0.00	07/23/87
AVS-2621	CPE	HIV	1.70	0.57	-	0.000	ATHB	-	32.0	0.00	07/08/87
AVS-2621	CPE	HIV	2.40	0.80	-	11.22	ATHB	-	100.0	8.92	07/23/87
AVS-2622	CPE	HIV	1.00	0.33	<	0.100	ATHB	-	1.0	10.00	07/08/87
AVS-2623	CPE	HIV	3.15	1.05	<	0.100	ATHB	-	32.0	320.00	07/08/87
AVS-2624	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	0.3	0.00	07/09/87
AVS-2625	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	3.2	0.00	07/10/87
AVS-2626	CPE	HIV	0.00	0.00	-	-	ATHB	100.0	-	-	10/29/87
AVS-2627	CPE	HIV	0.20	0.07	-	0.000	ATHB	-	32.0	0.00	07/09/87
AVS-2628	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	3.2	0.00	07/09/87
AVS-2629	CPE	HIV	1.00	0.33	-	22.91	ATHB	-	100.0	4.37	07/09/87
AVS-2630	CPE	HIV	0.00	0.00	-	0.000	ATHB	±	0.1	0.00	07/09/87
AVS-2631	CPE	HIV	0.00	0.00	-	0.000	ATHB	±	0.1	0.00	07/09/87
AVS-2632	CPE	HIV	0.00	0.00	-	0.000	ATHB	±	0.1	0.00	07/09/87
AVS-2633	CPE	HIV	0.00	0.00	-	0.000	ATHB	±	0.1	0.00	07/09/87
AVS-2634	CPE	HIV	0.20	0.07	-	0.000	ATHB	-	10.0	0.00	07/09/87
AVS-2635	CPE	HIV	0.00	0.00	-	-	ATHB	3.2	-	-	10/29/87
AVS-2636	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	10.0	0.00	07/10/87
AVS-2637	CPE	HIV	0.30	0.10	-	0.000	ATHB	-	3.2	0.00	07/10/87
AVS-2638	CPE	HIV	0.15	0.05	-	0.000	ATHB	-	1.0	0.00	07/10/87

UPDATED: 11/23/87

SUMMARY OF ANITVIRAL TEST RESULTS (AIDS) -- CONTRACT DAMD17-86-C-6013 (SciRI)

SHIPMENT NO. 20

AVS NO.	PROTOCOL	VIRUS	VR	VR*	ID50	CELL	MTC	TI	DATE
AVS-2043	CPE	HIV	0.00	0.00	0.000	ATH8	0.3	0.00	06/10/87
AVS-2044	CPE	HIV	0.45	0.15	0.000	ATH8	32.0	0.00	06/10/87
AVS-2045	CPE	HIV	0.50	0.17	0.000	ATH8	100.0	0.00	06/10/87
AVS-2046	CPE	HIV	0.45	0.15	0.000	ATH8	10.0	0.00	06/10/87
AVS-2047	CPE	HIV	0.45	0.15	0.000	ATH8	32.0	0.00	06/10/87
AVS-2048	CPE	HIV	0.00	0.00	0.000	ATH8	10.0	0.00	06/10/87
AVS-2049	CPE	HIV	1.00	0.33	0.000	ATH8	100.0	0.00	06/10/87
AVS-2049	CPE	HIV	0.00	0.00	0.000	ATH8	0.0	0.00	09/30/87
AVS-2050	CPE	HIV	0.55	0.18	0.000	ATH8	32.0	0.00	06/10/87
AVS-2051	CPE	HIV	0.60	0.20	0.000	ATH8	1.0	0.00	06/11/87
AVS-2052	CPE	HIV	0.00	0.00	0.000	ATH8	0.1	0.00	06/11/87
AVS-2053	CPE	HIV	0.55	0.18	0.000	ATH8	10.0	0.00	06/11/87
AVS-2054	CPE	HIV	0.60	0.20	0.000	ATH8	100.0	0.00	06/11/87
AVS-2055	CPE	HIV	0.00	0.00	0.000	ATH8	3.2	0.00	06/11/87
AVS-2056	CPE	HIV	0.10	0.03	0.000	ATH8	32.0	0.00	06/11/87
AVS-2057	CPE	HIV	0.20	0.07	0.000	ATH8	32.0	0.00	06/11/87
AVS-2058	CPE	HIV	0.00	0.00	0.000	ATH8	32.0	0.00	06/11/87
AVS-2059	CPE	HIV	0.50	0.17	0.000	ATH8	10.0	0.00	06/16/87
AVS-2060	CPE	HIV	0.15	0.05	0.000	ATH8	3.2	0.00	06/16/87
AVS-2061	CPE	HIV	0.20	0.07	0.000	ATH8	10.0	0.00	06/16/87
AVS-2062	CPE	HIV	1.05	0.35	0.000	ATH8	100.0	0.00	06/16/87
AVS-2062	CPE	HIV	0.00	0.00	0.000	ATH8	0.0	0.00	09/30/87
AVS-2063	CPE	HIV	0.00	0.00	0.000	ATH8	10.0	0.00	06/16/87
AVS-2064	CPE	HIV	0.00	0.00	0.000	ATH8	10.0	0.00	06/16/87
AVS-2065	CPE	HIV	0.00	0.00	0.000	ATH8	0.1	0.00	06/16/87
AVS-2066	CPE	HIV	0.30	0.10	0.000	ATH8	3.2	0.00	06/16/87

373

AVS-2067	CPE	HIV	0.00	0.00	-	0.000	ATHB \leq	0.1	0.00	06/16/87
AVS-2507	CPE	HIV	0.00	0.00	-	0.000	ATHB $>$	100.0	0.00	05/28/87
AVS-2507	CPE	HIV	0.60	0.20	-	0.000	ATHB $>$	100.0	0.00	06/17/87
AVS-2508	CPE	HIV	0.00	0.00	-	0.000	ATHB $>$	100.0	0.00	05/28/87
AVS-2509	CPE	HIV	0.00	0.00	-	0.000	ATHB $<$	0.1	0.00	05/28/87
AVS-2510	CPE	HIV	0.00	0.00	-	0.000	ATHB $-$	100.0	0.00	05/28/87
AVS-2511	CPE	HIV	0.00	0.00	-	0.000	ATHB $-$	1.0	0.00	05/28/87
AVS-2512	CPE	HIV	0.00	0.00	-		ATHB	32.0	-	11/06/87
AVS-2513	CPE	HIV	0.00	0.00	-		ATHB	3.2	-	10/29/87
AVS-2514	CPE	HIV	0.80	0.27	-	0.000	ATHB $-$	3.2	0.00	06/01/87
AVS-2515	CPE	HIV	0.00	0.00	-	0.000	ATHB $-$	32.0	0.00	06/01/87
AVS-2516	CPE	HIV	0.00	0.00	-	0.000	ATHB $-$	100.0	0.00	06/01/87
AVS-2517	CPE	HIV	0.30	0.10	-	0.000	ATHB \leq	0.1	0.00	06/01/87
AVS-2518	CPE	HIV	0.00	0.00	-	0.000	ATHB \leq	0.1	0.00	06/01/87
AVS-2519	CPE	HIV	0.30	0.10	-	0.000	ATHB $-$	0.3	0.00	06/01/87
AVS-2520	CPE	HIV	1.20	0.40	-	0.000	ATHB $<$	10.0	0.00	06/01/87
AVS-2521	CPE	HIV	0.00	0.00	-	0.000	ATHB $<$	0.1	0.00	06/01/87
AVS-2522	CPE	HIV	0.20	0.07	-	0.000	ATHB $<$	1.0	0.00	06/01/87
AVS-2523	CPE	HIV	0.00	0.00	-		ATHB	100.0	-	10/29/87
AVS-2524	CPE	HIV	0.00	0.00	-		ATHB	32.0	-	10/29/87
AVS-2526	CPE	HIV	0.00	0.00	-		ATHB $>$	100.0	-	10/29/87
AVS-2529	CPE	HIV	0.00	0.00	-	0.000	ATHB $<$	0.1	0.00	07/09/87
AVS-2530	CPE	HIV	0.41	0.14	-	0.000	ATHB $-$	0.3	0.00	07/09/87
AVS-2531	CPE	HIV	0.10	0.03	-	0.000	ATHB $-$	0.3	0.00	07/09/87
AVS-2532	CPE	HIV	0.60	0.20	-	0.000	ATHB $-$	1.0	0.00	07/09/87
AVS-2533	CPE	HIV	0.00	0.00	-	0.000	ATHB $<$	0.1	0.00	07/09/87
AVS-2534	CPE	HIV	0.30	0.10	-	0.000	ATHB $-$	0.3	0.00	07/09/87
AVS-2535	CPE	HIV	0.50	0.17	-	0.000	ATHB $-$	3.2	0.00	07/09/87
AVS-2536	CPE	HIV	0.00	0.00	-	0.000	ATHB $>$	100.0	0.00	07/09/87
AVS-2537	CPE	HIV	0.00	0.00	-		ATHB	10.0	-	11/06/87

AVS-2538	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	100.0	0.00	06/22/87
AVS-2540	CPE	HIV	0.20	0.07	-	0.000	ATHB	>	100.0	0.00	06/16/87
AVS-2541	CPE	HIV	0.00	0.00	-	0.000	ATHB	±	0.1	0.00	06/22/87
AVS-2542	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	1.0	0.00	06/22/87
AVS-2544	CPE	HIV	0.50	0.17	-	0.000	ATHB	-	1.0	0.00	07/10/87
AVS-2564	CPE	HIV	0.00	0.00	-	0.000	ATHB	<	0.1	0.00	07/10/87
AVS-2860	CPE	HIV	0.60	0.20	-	0.000	ATHB	<	32.0	0.00	05/28/87
AVS-2861	CPE	HIV	0.00	0.00	-	0.000	ATHB	>	100.0	0.00	05/28/87
AVS-2862	CPE	HIV	0.20	0.07	-	0.000	ATHB	-	10.0	0.00	05/28/87
AVS-2863	CPE	HIV	0.90	0.30	-	0.000	ATHB	-	3.2	0.00	05/28/87
AVS-2864	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	100.0	0.00	05/28/87
AVS-2865	CPE	HIV	0.00	0.00	-	0.000	ATHB	>	100.0	0.00	05/28/87
AVS-2866	CPE	HIV	0.00	0.00	-	0.000	ATHB	>	100.0	0.00	05/28/87
AVS-2867	CPE	HIV	0.90	0.30	-	0.100	ATHB	<	1.0	10.00	05/28/87
AVS-2868	CPE	HIV	0.90	0.30	-	0.000	ATHB	<	10.0	0.00	05/28/87

UPDATED: 11/23/87

375

SUMMARY OF ANITVIRAL TEST RESULTS (AIDS)--CONTRACT DAMD17-86-C-6013 (SciRI)

SHIPMENT NO. 21

AVS NO.	PROTOCOL	VIRUS	VR	VR*	ID50	CELL	MTC	TI	DATE
AVS-1754	CPE	HIV	0.00	0.00	0.000	ATH8	100.0	0.00	07/10/87
AVS-1759	CPE	HIV	0.00	0.00	0.000	ATH8	10.0	0.00	07/10/87
AVS-1760	CPE	HIV	0.30	0.10	0.000	ATH8	32.0	0.00	07/10/87
AVS-1790	CPE	HIV	2.60	0.87	0.544	ATH8	100.0	183.75	07/16/87
AVS-1790	CPE	HIV	0.00	0.00	0.000	ATH8	0.0	0.00	09/30/87
AVS-1790	CPE	HIV	0.00	0.00	0.000	ATH8	0.0	0.00	09/30/87
AVS-1790	CPE	HIV	0.00	0.00	0.000	ATH8	0.0	0.00	10/06/87
AVS-1790	CPE	HIV	0.00	0.00	-	ATH8	32.0	-	11/06/87
AVS-2145	CPE	HIV	3.10	1.03	6.900	ATH8	100.0	14.49	07/16/87
AVS-2145	CPE	HIV	0.00	0.00	0.000	ATH8	0.0	0.00	09/30/87
AVS-2146	CPE	HIV	3.40	1.13	2.105	ATH8	100.0	47.50	07/16/87
AVS-2146	CPE	HIV	0.00	0.00	0.000	ATH8	0.0	0.00	09/30/87
AVS-2503	CPE	HIV	0.00	0.00	0.000	ATH8	1.0	0.00	06/17/87
AVS-2504	CPE	HIV	0.00	0.00	0.000	ATH8	1.0	0.00	06/17/87
AVS-2505	CPE	HIV	0.00	0.00	0.000	ATH8	100.0	0.00	06/17/87
AVS-2506	CPE	HIV	0.00	0.00	0.000	ATH8	32.0	0.00	06/17/87
AVS-2543	CPE	HIV	1.60	0.53	0.000	ATH8	32.0	0.00	07/16/87
AVS-2553	CPE	HIV	0.00	0.00	0.000	ATH8	0.1	0.00	10/09/87
AVS-2555	CPE	HIV	0.10	0.03	0.000	ATH8	10.0	0.00	06/25/87
AVS-2556	CPE	HIV	0.00	0.00	0.000	ATH8	0.3	0.00	06/25/87
AVS-2557	CPE	HIV	0.10	0.03	0.000	ATH8	0.3	0.00	06/25/87
AVS-2558	CPE	HIV	0.10	0.03	0.000	ATH8	0.3	0.00	06/25/87
AVS-2559	CPE	HIV	0.00	0.00	0.000	ATH8	0.3	0.00	06/25/87
AVS-2560	CPE	HIV	0.00	0.00	0.000	ATH8	3.2	0.00	06/25/87
AVS-2561	CPE	HIV	0.00	0.00	0.000	ATH8	0.1	0.00	06/25/87
AVS-2562	CPE	HIV	0.00	0.00	0.000	ATH8	32.0	0.00	06/25/87
AVS-2563	CPE	HIV	0.35	0.12	0.000	ATH8	1.0	0.00	06/25/87
AVS-2565	CPE	HIV	1.65	0.55	1.789	ATH8	10.0	5.59	07/16/87
AVS-2566	CPE	HIV	0.00	0.00	0.000	ATH8	100.0	0.00	07/16/87

AVS-2567	CPE	HIV	3.40	1.13	-	1.838	ATHB	>	100.0	54.39	07/14/87
AVS-2568	CPE	HIV	0.85	0.28	-	0.000	ATHB	-	32.0	0.00	07/16/87
AVS-2569	CPE	HIV	1.45	0.48	-	2.636	ATHB	-	100.0	37.94	07/16/87
AVS-2640	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	1.0	0.00	10/09/87
AVS-2641	CPE	HIV	0.20	0.07	-	0.000	ATHB	-	100.0	0.00	10/09/87
AVS-2642	CPE	HIV	2.00	0.67	-	0.000	ATHB	>	100.0	0.00	10/07/87
AVS-2643	CPE	HIV	1.55	0.52	-	0.000	ATHB	-	1.0	0.00	10/07/87
AVS-2646	CPE	HIV	0.90	0.30	-		ATHB		3.2	-	10/14/87
AVS-2647	CPE	HIV	1.05	0.35	-		ATHB		3.2	-	10/14/87
AVS-2648	CPE	HIV	1.40	0.47		0.100	ATHB		1.0	10.00	10/14/87
AVS-2649	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	100.0	0.00	07/14/87
AVS-2650	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	100.0	0.00	07/14/87
AVS-2651	CPE	HIV	0.00	0.00	-	0.000	ATHB	>	100.0	0.00	07/14/87
AVS-2652	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	32.0	0.00	07/14/87
AVS-2653	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	100.0	0.00	07/14/87
AVS-2654	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	100.0	0.00	07/14/87
AVS-2655	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	100.0	0.00	07/14/87
AVS-2656	CPE	HIV	0.00	0.00	-	0.000	ATHB	>	100.0	0.00	07/14/87
AVS-2657	CPE	HIV	1.10	0.37	-	56.67	ATHB	>	100.0	1.76	07/14/87
AVS-2658	CPE	HIV	0.00	0.00	-	0.000	ATHB	>	100.0	0.00	07/21/87
AVS-2659	CPE	HIV	0.00	0.00	-	0.000	ATHB	>	100.0	0.00	07/21/87
AVS-2660	CPE	HIV	-	-	-		ATHB	-	-	-	10/12/87
AVS-2660	CPE	HIV	-	-	-		ATHB	-	-	-	10/21/87
AVS-2661	CPE	HIV	-	-	-		ATHB	-	-	-	10/12/87
AVS-2661	CPE	HIV	-	-	-		ATHB	-	-	-	10/21/87
AVS-2662	CPE	HIV	-	-	-		ATHB	-	-	-	10/12/87
AVS-2662	CPE	HIV	-	-	-		ATHB	-	-	-	10/21/87
AVS-2663	CPE	HIV	-	-	-		ATHB	-	-	-	10/12/87
AVS-2663	CPE	HIV	-	-	-		ATHB	-	-	-	10/21/87
AVS-2664	CPE	HIV	0.65	0.22	-		ATHB		1.0	-	10/14/87
AVS-2665	CPE	HIV	1.10	0.37	-		ATHB		3.2	-	10/14/87
AVS-2666	CPE	HIV	1.20	0.40	-		ATHB		10.0	-	10/14/87
AVS-2667	CPE	HIV	0.70	0.23	-		ATHB		1.0	-	10/14/87

377

AVS-2668	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	100.0	0.00	07/22/87
AVS-2669	CPE	HIV	-	-	-	-	ATHB	-	-	-	10/12/87
AVS-2669	CPE	HIV	-	-	-	-	ATHB	-	-	-	10/21/87
AVS-2670	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	0.0	0.00	10/06/87
AVS-2670	CPE	HIV	-	-	-	-	ATHB	-	-	-	10/12/87
AVS-2670	CPE	HIV	-	-	-	-	ATHB	-	-	-	10/21/87
AVS-2671	CPE	HIV	0.00	0.00	-	0.000	ATHB	>	100.0	0.00	10/07/87
AVS-2672	CPE	HIV	0.10	0.03	-	0.000	ATHB	-	100.0	0.00	10/07/87
AVS-2673	CPE	HIV	1.90	0.63	-	0.000	ATHB	-	100.0	0.00	10/07/87
AVS-2674	CPE	HIV	0.20	0.07	-	0.000	ATHB	-	100.0	0.00	10/07/87
AVS-2675	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	100.0	0.00	10/07/87
AVS-2676	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	100.0	0.00	10/07/87
AVS-2677	CPE	HIV	0.20	0.07	-	0.000	ATHB	>	100.0	0.00	10/07/87
AVS-2678	CPE	HIV	0.30	0.10	-	0.000	ATHB	>	100.0	0.00	10/07/87
AVS-2679	CPE	HIV	0.40	0.13	-	0.000	ATHB	-	32.0	0.00	10/07/87
AVS-2680	CPE	HIV	0.20	0.07	-	0.000	ATHB	-	100.0	0.00	10/09/87
AVS-2681	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	32.0	0.00	10/09/87
AVS-2682	CPE	HIV	0.00	0.00	-	0.000	ATHB	<	32.0	0.00	10/09/87
AVS-2683	CPE	HIV	0.00	0.00	-	0.000	ATHB	>	100.0	0.00	10/09/87
AVS-2684	CPE	HIV	0.20	0.07	-	0.000	ATHB	-	100.0	0.00	10/09/87
AVS-2707	CPE	FeLV	0.00	0.00	-	0.000	BIC	-	32.0	0.00	09/11/87
AVS-2707	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	0.0	0.00	09/10/87
AVS-2707	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	0.0	0.00	10/06/87
AVS-2707	CPE	HIV	0.00	0.00	-	-	ATHB	>	100.0	-	11/06/87
AVS-2741	CPE	HIV	0.40	0.13	-	0.000	ATHB	>	100.0	0.00	10/09/87
AVS-2742	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	100.0	0.00	10/09/87
AVS-2881	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	100.0	0.00	10/09/87

UPDATED: 11/23/87

SUMMARY OF ANITVIRAL TEST RESULTS (AIDS)--CONTRACT DAMD17-86-C-6013 (SoRI)

SHIPMENT NO. 22

AVS NO.	PROTOCOL	VIRUS	VR	VR*	ID50	CELL	MTC	TI	DATE
AVS-1764	CPE	HIV	3.05	1.02	0.100	ATH8	32.0	320.00	10/14/87
AVS-1777	CPE	HIV	0.00	0.00	-	ATH8	0.1	-	10/14/87
AVS-1795	CPE	HIV	1.20	0.40	-	ATH8	1.0	-	10/14/87
AVS-1796	CPE	HIV	0.00	0.00	-	ATH8	32.0	-	10/28/87
AVS-2685	CPE	HIV	0.00	0.00	-	ATH8	32.0	-	10/28/87
AVS-2686	CPE	HIV	0.00	0.00	-	ATH8	100.0	-	10/28/87
AVS-2687	CPE	HIV	0.00	0.00	-	ATH8	32.0	-	10/28/87
AVS-2688	CPE	HIV	0.00	0.00	0.000	ATH8	0.1	0.00	06/22/87
AVS-2689	CPE	HIV	0.00	0.00	0.000	ATH8	1.0	0.00	06/22/87
AVS-2690	CPE	HIV	0.00	0.00	0.000	ATH8	1.0	0.00	06/22/87
AVS-2691	CPE	HIV	0.45	0.15	0.000	ATH8	1.0	0.00	06/22/87
AVS-2692	CPE	HIV	0.40	0.13	0.000	ATH8	1.0	0.00	06/22/87
AVS-2693	CPE	HIV	0.00	0.00	0.000	ATH8	0.3	0.00	06/22/87
AVS-2694	CPE	HIV	0.00	0.00	-	ATH8	100.0	-	10/28/87
AVS-2695	CPE	HIV	0.00	0.00	-	ATH8	3.2	-	10/28/87
AVS-2696	CPE	HIV	0.00	0.00	-	ATH8	0.3	-	10/28/87
AVS-2697	CPE	HIV	0.00	0.00	-	ATH8	10.0	-	10/28/87
AVS-2698	CPE	HIV	0.00	0.00	-	ATH8	32.0	-	10/28/87
AVS-2699	CPE	HIV	0.00	0.00	-	ATH8	100.0	-	10/28/87
AVS-2700	CPE	HIV	0.00	0.00	-	ATH8	1.0	-	10/28/87
AVS-2708	CPE	FeLV	4.60	1.53	1.212	81C	100.0	82.48	07/31/87
AVS-2708	CPE	HIV	1.30	0.43	0.100	ATH8	1.0	10.00	10/14/87
AVS-2708	CPE	HIV	2.45	0.82	-	ATH8	32.0	-	10/19/87
AVS-2714	CPE	HIV	0.00	0.00	-	ATH8	0.1	-	10/29/87
AVS-2716	CPE	HIV	0.20	0.07	0.000	ATH8	1.0	0.00	06/29/87
AVS-2717	CPE	HIV	0.00	0.00	0.000	ATH8	100.0	0.00	05/20/87
AVS-2717	CPE	HIV	0.40	0.13	0.000	ATH8	100.0	0.00	06/29/87
AVS-2718	CPE	HIV	0.00	0.00	0.000	ATH8	32.0	0.00	06/29/87
AVS-2719	CPE	HIV	0.00	0.00	0.000	ATH8	32.0	0.00	06/29/87
AVS-2720	CPE	HIV	0.00	0.00	0.000	ATH8	100.0	0.00	05/22/87
AVS-2720	CPE	HIV	0.25	0.08	0.000	ATH8	32.0	0.00	06/29/87
AVS-2721	CPE	HIV	0.00	0.00	0.000	ATH8	100.0	0.00	05/20/87
AVS-2721	CPE	HIV	0.00	0.00	0.000	ATH8	100.0	0.00	06/29/87

AVS-2722	CPE	HIV	0.00	0.00	-	0.000	ATHB	>	100.0	0.00	05/20/87
AVS-2722	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	3.2	0.00	06/23/87
AVS-2723	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	100.0	0.00	05/22/87
AVS-2724	CPE	HIV	0.00	0.00	-		ATHB	<	0.1	-	10/29/87
AVS-2725	CPE	HIV	0.00	0.00	-		ATHB	<	0.1	-	10/29/87
AVS-2726	CPE	HIV	0.00	0.00	-		ATHB		3.2	-	10/29/87
AVS-2727	CPE	HIV	0.00	0.00	-		ATHB	<	0.1	-	10/29/87
AVS-2729	CPE	HIV	0.00	0.00	-		ATHB	<	0.1	-	10/29/87
AVS-2730	CPE	HIV	0.00	0.00	-		ATHB	<	0.1	-	10/29/87
AVS-2732	CPE	HIV	0.00	0.00	-		ATHB	<	0.1	-	10/29/87
AVS-2733	CPE	HIV	0.00	0.00	-		ATHB	<	0.1	-	10/29/87
AVS-2734	CPE	HIV	0.00	0.00	-		ATHB	<	0.1	-	11/06/87
AVS-2735	CPE	HIV	0.00	0.00	-		ATHB		10.0	-	11/06/87
AVS-2736	CPE	HIV	0.00	0.00	-		ATHB		3.2	-	11/06/87
AVS-2737	CPE	HIV	0.00	0.00	-		ATHB		3.2	-	11/06/87
AVS-2738	CPE	HIV	0.00	0.00	-		ATHB		3.2	-	11/06/87
AVS-2739	CPE	HIV	0.00	0.00	-		ATHB		3.2	-	11/06/87
AVS-2740	CPE	HIV	0.00	0.00	-		ATHB		100.0	-	11/06/87
AVS-2744	CPE	HIV	0.00	0.00	-		ATHB		32.0	-	11/06/87
AVS-2745	CPE	HIV	0.00	0.00	-		ATHB		10.0	-	11/06/87
AVS-2746	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	10.0	0.00	05/20/87
AVS-2747	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	3.2	0.00	05/20/87
AVS-2748	CPE	HIV	1.10	0.37	-	0.121	ATHB	-	1.0	8.24	05/20/87
AVS-2748	CPE	HIV	0.00	0.00	-	0.000	ATHB	≤	0.1	0.00	07/10/87
AVS-2749	CPE	HIV	1.90	0.63	-	1.789	ATHB	-	32.0	17.89	05/20/87
AVS-2749	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	10.0	0.00	06/17/87
AVS-2749	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	100.0	0.00	07/22/87
AVS-2750	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	100.0	0.00	06/17/87
AVS-2751	CPE	HIV	0.00	0.00	-	0.000	ATHB	-	1.0	0.00	07/22/87
AVS-2752	CPE	HIV	1.10	0.37	-	0.000	ATHB	-	100.0	0.00	06/25/87

AVS-2753	CPE	HIV	1.00	0.33	-	0.000	ATHB -	10.0	0.00	06/24/87
AVS-2754	CPE	HIV	0.20	0.07	-	0.000	ATHB -	100.0	0.00	06/24/87
AVS-2755	CPE	HIV	0.00	0.00	-		ATHB	10.0	-	11/06/87
AVS-2756	CPE	HIV	0.00	0.00	-		ATHB	10.0	-	11/06/87
AVS-2757	CPE	HIV	0.00	0.00	-		ATHB	100.0	-	11/09/87
AVS-2758	CPE	HIV	0.00	0.00	-		ATHB	10.0	-	11/09/87
AVS-2759	CPE	HIV	0.00	0.00	-		ATHB	10.0	-	11/09/87
AVS-2760	CPE	HIV	1.35	0.45	-	5.738	ATHB -	32.0	5.58	07/22/87
AVS-2761	CPE	HIV	0.70	0.23	-	0.000	ATHB)	100.0	0.00	05/28/87
AVS-2762	CPE	HIV	0.00	0.00	-	0.000	ATHB -	3.2	0.00	05/28/87
AVS-2763	CPE	HIV	0.00	0.00	-	0.000	ATHB (	100.0	0.00	05/28/87
AVS-2764	CPE	HIV	0.00	0.00	-	0.000	ATHB -	10.0	0.00	05/28/87
AVS-2765	CPE	HIV	0.00	0.00	-	0.000	ATHB -	32.0	0.00	05/28/87
AVS-2766	CPE	HIV	0.10	0.03	-	0.000	ATHB -	3.2	0.00	05/28/87
AVS-2767	CPE	HIV	0.55	0.18	-	0.000	ATHB -	100.0	0.00	05/28/87
AVS-2768	CPE	HIV	0.00	0.00	-	0.000	ATHB -	10.0	0.00	05/28/87
AVS-2770	CPE	HIV	0.00	0.00	-		ATHB	10.0	-	11/09/87
AVS-2771	CPE	HIV	0.00	0.00	-		ATHB	10.0	-	11/09/87
AVS-2772	CPE	HIV	0.00	0.00	-		ATHB)	100.0	-	11/09/87
AVS-2773	CPE	HIV	0.00	0.00	-		ATHB	100.0	-	11/09/87
AVS-2774	CPE	HIV	0.00	0.00	-		ATHB)	100.0	-	11/09/87
AVS-2775	CPE	HIV	0.00	0.00	-		ATHB)	100.0	-	11/09/87

UPDATED: 11/23/87

SUMMARY OF ANITVIRAL TEST RESULTS (AIDS)--CONTRACT DAMD17-86-C-6013 (S&RI)

SHIPMENT NO. 23

AVS NO.	PROTOCOL	VIRUS	VR	VR*	ID50	CELL	MTC	TI	DATE
AVS-2952	CPE	HIV	0.00	0.00	- 0.000	ATH8	100.0	0.00	05/22/87
AVS-2953	CPE	HIV	0.40	0.13	- 0.000	ATH8	100.0	0.00	05/22/87
AVS-2954	CPE	HIV	0.82	0.27	- 0.000	ATH8	100.0	0.00	05/22/87
AVS-2955	CPE	HIV	2.12	0.71	- 1.583	ATH8	10.0	6.32	05/22/87

UPDATED: 10/28/87

SUMMARY OF ANITVIRAL TEST RESULTS (AIDS) -- CONTRACT DAMD17-86-C-6013 (ScRI)

SHIPMENT NO. 24

AVS NO.	PROTOCOL	VIRUS	VR	VR*	ID50	CELL	MTC	TI	DATE
AVS-2707	CPE	HIV	0.00	0.00	-	ATH8	100.0	-	11/06/87
AVS-2769	CPE	HIV	0.00	0.00	-	ATH8	100.0	-	11/09/87
AVS-2787	CPE	HIV	0.00	0.00	-	ATH8	100.0	-	11/09/87
AVS-2788	CPE	HIV	0.00	0.00	-	ATH8	32.0	-	11/09/87
AVS-2789	CPE	HIV	0.00	0.00	-	ATH8	100.0	-	11/09/87
AVS-2790	CPE	HIV	0.00	0.00	-	ATH8	100.0	-	11/09/87

UPDATED: 11/23/87

SUMMARY OF ANITVIRAL TEST RESULTS (AIDS)--CONTRACT DAMD17-86-C-6013 (SoRI)

SHIPMENT NO. 25

AVS NO.	PROTOCOL	VIRUS	VR	VR*	ID50	CELL	MTC	TI	DATE
AVS-0346	CPE	HIV	0.00	0.00	-	ATH8	1.0	-	11/06/87
AVS-0353	CPE	HIV	0.00	0.00	-	ATH8	0.1	-	11/06/87
AVS-0368	CPE	HIV	0.00	0.00	-	ATH8	32.0	-	11/06/87
AVS-2813	CPE	HIV	0.00	0.00	-	ATH8	0.1	-	11/09/87
AVS-2934	CPE	HIV	0.00	0.00	-	ATH8	0.1	-	11/09/87
AVS-2978	CPE	HIV	0.00	0.00	-	ATH8	0.3	-	11/09/87
AVS-2979	CPE	HIV	0.00	0.00	-	ATH8	0.3	-	11/09/87
AVS-2980	CPE	HIV	0.00	0.00	-	ATH8	0.3	-	11/09/87

UPDATED: 11/23/87

SUMMARY OF ANITVIRAL TEST RESULTS (AIDS) -- CONTRACT DAMD17-86-C-6013 (ScRJ)

SHIPMENT NO. 26

AVS NO.	PROTOCOL	VIRUS	VR	VR*	ID50	CELL	MTC	TI	DATE
AVS-2934	CPE	HIV	0.00	0.00	-	ATH8	0.1	-	11/09/87

UPDATED: 11/23/87

Appendix D

Cumulative Summary of *In Vivo* Antiviral Test Results

CUMULATIVE SUMMARY OF IN VIVO TEST RESULTS
-PICHINDE VIRUS IN MHA HAMSTERS-

EXP. NO.	CMPD #	DOSE (MG/KG)	PX RTE & SCHEDULE	UNINFECTED		INFECTED			
				DEAD/TOTAL	ADD	DEAD/TOTAL	ADD	GMTD	VR
15	AVS-0001	100	SC; Q1D X 7, DAY 0	0/5	--	0/10	--	21.0	1.3
18	AVS-0001	100	SC; Q1D X 7, DAY 0	0/5	--	4/10	17.3	19.4	2.1
19	AVS-0001	100	SC; Q1D X 7, DAY 0	0/5	--	6/10	16.7	18.1	1.7
20	AVS-0001	100	SC; Q1D X 7, DAY 0	0/5	--	8/10	16.9	18.5	1.7
21	AVS-0001	100	SC; Q1D X 7, DAY 0	0/5	--	7/10	16.3	19.1	1.8
23	AVS-0001	100	SC; Q1D X 7, DAY 0	0/5	--	8/10	18.4	19.9	2.0
24	AVS-0001	100	SC; Q1D X 7, DAY 0	0/5	--	7/9	15.9	17.7	1.7
28	AVS-0001	100	SC; Q1D X 7, DAY 0	0/5	--	5/10	16.2	21.2	1.8
27	AVS-0001	50	SC; Q1D X10, DAY-1	0/5	--	9/10	16.4	17.1	1.7
25	AVS-0001	100	SC; Q1D X12, DAY-1	1/5	18.0	3/10	21.7	25.8	2.7
26	AVS-0001	100	SC; Q1D X12, DAY-1	0/5	--	10/10	12.5	12.3	1.3
18	AVS-0052	100	SC; Q1D X 7, DAY 0	5/5	4.2	10/10	4.2	4.2	0.5
18		32		5/5	6.8	10/10	6.6	6.6	0.7
18		10		0/5	--	10/10	8.9	8.6	0.9
18		3.2		0/5	--	9/10	10.6	10.9	1.2
25		3.2	SC; Q1D X12, DAY-1	0/5	--	10/10	7.0	7.0	0.7
25		1.0	SC; Q1D X12, DAY-1	0/5	--	10/10	9.2	9.2	0.9
27		3.2	SC; Q1D X10, DAY-1	0/5	--	10/10	7.7	7.7	0.8
27		1.0	SC; Q1D X10, DAY-1	0/5	--	10/10	10.5	10.2	1.0
27	1) AVS-0052	1) 3.2	SC; Q1D X10, DAY-1	0/5	--	10/10	17.0	16.9	1.7
	2) AVS-0001	2) 50	SC; Q1D X10, DAY-1						
27		1) 1.0		0/5	--	9/10	17.6	18.1	1.8
		2) 50							
15	AVS-0079	100	SC; Q1D X 7, DAY 0	0/5	--	8/8	14.0	13.5	0.9
15		32		0/5	--	1/10	11.0	19.7	1.2
18		32		--	--	10/10	8.6	7.0	0.8
15		10		0/5	--	5/10	9.8	14.3	0.9
15		3.2		0/5	--	7/10	13.0	14.5	0.9
19	AVS-0111	100	SC; Q1D X 7, DAY 0	0/5	--	9/10	11.9	12.5	1.2
19		32		0/5	--	9/10	10.7	11.4	1.1
19		10		0/5	--	8/10	11.4	12.6	1.2
19		3.2		0/5	--	9/10	9.0	9.7	0.9
19	AVS-0148	10	SC; Q1D X 7, DAY 0	0/5	--	10/10	12.0	11.7	1.1
19		3.2		0/5	--	10/10	11.2	11.1	1.1
19		1.0		0/5	--	10/10	10.4	10.3	1.0
19		0.32		0/5	--	10/10	11.7	11.5	1.1
19		0.1		0/5	--	10/10	11.3	10.9	1.1
27	AVS-0148	3.2	SC; Q1D X10, DAY-1	0/5	--	10/10	10.3	10.3	1.1
27		1.0		0/5	--	10/10	11.3	11.1	1.1
25	AVS-0148	20	SC; Q1D X12, DAY-1	5/5	8.8	10/10	7.0	6.9	0.7
25		10		5/5	20.0	10/10	9.5	9.5	1.0
25		3.2		2/5	14.0	10/10	9.8	9.8	1.0

27	1) AVS-0148	1)	3.2	SC; Q1D X10, DAY-1	0/5	--	10/10	16.6	16.5	1.7
	2) AVS-0001	2)	50.0	SC; Q1D X10, DAY-1						
27		1)	1.0		0/5	--	9/9	16.2	17.1	1.7
		2)	50.0							
20	AVS-0167	32		SC; Q1D X 7, DAY 0	0/5	--	10/10	10.0	10.0	0.9
20		10			0/5	--	9/10	9.8	10.8	1.0
20		3.2			0/5	--	9/10	10.4	11.5	1.0
20		1.0			0/5	--	10/10	11.4	10.9	1.0
26	AVS-0167	10		SC; Q1D X12, DAY-1	0/5	--	10/10	11.3	10.8	1.2
26		3.2			0/5	--	10/10	9.6	9.6	1.0
26		1.0			0/5	--	10/10	10.3	10.1	1.1
21	AVS-0206	100		SC; Q1D X 7, DAY 0	0/5	--	8/10	15.3	17.1	1.6
21		32			0/5	--	9/10	14.0	14.9	1.4
21		10			0/5	--	9/10	13.1	13.9	1.3
21		3.2			0/5	--	10/10	10.4	10.3	1.0
25	AVS-0206	200		SC; Q1D X12, DAY-1	0/5	--	4/10	18.8	23.8	2.5
24	AVS-0215	32		SC; Q1D X 7, DAY 0	0/5	--	10/10	9.7	9.6	0.9
24		10			0/5	--	10/10	9.7	9.7	0.9
24		3.2			0/5	--	10/10	11.1	10.8	1.0
24		1.0			0/5	--	10/10	9.5	9.5	0.9
15	AVS-0253	100		SC; Q1D X 7, DAY 0	2/5	9.5	9/10	9.3	10.1	0.6
15	AVS-0253	32			0/5	--	1/10	11.0	19.7	1.2
18	AVS-0253	32			0/5	--	10/10	10.1	9.9	1.1
21	AVS-0253	32			0/5	--	8/10	8.3	10.4	1.3
15	AVS-0253	10			0/5	--	5/10	11.2	15.3	0.9
15	AVS-0253	3.2			0/5	--	8/10	11.3	12.6	0.8
28	AVS-0272	100		SC; Q1D X 7, DAY 0	4/5	10.5	10/10	10.5	10.3	0.9
28		32			0/5	--	10/10	9.8	9.7	0.8
28		10			1/5	16.0	10/10	11.6	11.2	0.9
28		3.2			0/5	--	10/10	11.5	11.2	0.9
20	AVS-0332	100		SC; Q1D X 7, DAY 0	0/5	--	10/10	11.5	11.1	1.0
20		32			0/5	--	10/10	11.1	10.8	1.0
20		10			0/5	--	10/10	9.9	9.7	0.9
20		3.2			0/5	--	9/10	11.2	11.8	1.1
26	AVS-0332	3.2		SC; Q1D X12, DAY-1	0/5	--	10/10	9.3	9.2	1.0
26		1.0			0/5	--	10/10	11.1	10.9	1.2
28	AVS-0346	60		SC; Q1D X 7, DAY 0	0/5	--	10/10	11.1	10.7	0.9
28		30			0/5	--	10/10	11.9	11.4	0.9
28		15			0/5	--	9/10	11.8	12.7	1.1
28		7.5			0/5	--	8/10	14.4	15.7	1.3
23	AVS-0360	100		SC; Q1D X 7, DAY 0	5/5*	--	10/10	8.2	8.2	0.8
23		32			5/5**	--	9/10***	9.9	10.8	1.1
23		10			0/5	--	10/10	11.1	10.6	1.1
23		3.2			0/5	--	10/10	10.3	10.2	1.0
21	AVS-0646	100		SC; Q1D X 7, DAY 0	5/5	6.4	10/10	6.1	6.1	0.6
21		32			1/5	11.0	10/10	7.0	6.7	0.6
21		10			0/5	--	9/10	7.8	8.4	0.8
21		3.2			0/5	--	10/10	12.6	11.8	1.1

26	AVS-0646	3.2	SC; Q1D X7, DAY-1	0/5	--	10/10	7.9	8.0	0.9
26		1.0		0/5	--	10/10	9.5	9.5	1.0
24	AVS-1046	100	SC; Q1D X 7, DAY 0	0/5	--	10/10	13.7	13.4	1.3
24		32		0/5	--	9/10	12.3	13.1	1.3
24		10		0/5	--	10/10	12.4	11.8	1.1
24		3.2		0/5	--	9/10	10.9	11.8	1.1
23	AVS-1250	100	SC; Q1D X 7, DAY 0	0/5	--	10/10	10.2	9.8	1.0
23		32		0/5	--	10/10	9.2	9.2	0.9
23		10		0/5	--	9/10	9.6	10.6	1.1
23		3.2		0/5	--	10/10	9.7	9.7	1.0
9	UNTREATED CONTROL		--	0/4	--	3/5	10.0	--	--
15	UNTREATED CONTROL		--	0/5	--	4/10	10.0	15.6	1.0
18	UNTREATED CONTROL		--	0/5	--	8/10	9.9	11.4	1.2
19	UNTREATED CONTROL		--	0/5	--	9/10	10.2	10.7	1.0
20	UNTREATED CONTROL		--	0/5	--	9/10	9.0	10.1	0.9
21	UNTREATED CONTROL		--	0/5	--	10/10	10.1	10.1	0.9
23	UNTREATED CONTROL		--	0/5	--	10/10	10.9	10.6	1.1
24	UNTREATED CONTROL		--	0/5	--	10/10	10.5	10.4	1.0
25	UNTREATED CONTROL		--	0/5	--	10/10	9.5	9.4	1.0
26	UNTREATED CONTROL		--	0/5	--	10/10	8.9	8.9	1.0
27	UNTREATED CONTROL		--	0/5	--	10/10	10.0	--	--
28	UNTREATED CONTROL		--	0/5	--	10/10	10.2	10.1	0.8
9	SHAM-INFECTED		--	0/5	--	--	--	--	--
18	SHAM-INFECTED		--	0/5	--	--	--	--	--
24	SHAM-INFECTED		--	0/5	--	--	--	--	--
9	PBS CONTROL		SC; Q1D X 7, DAY 0	0/5	--	10/10	8.1	--	--
15	PBS CONTROL		SC; Q1D X 7, DAY 0	0/5	--	5/10	12.2	15.6	1.0
18	PBS CONTROL		SC; Q1D X 7, DAY 0	0/5	--	10/10	9.1	9.2	1.0
19	PBS CONTROL		SC; Q1D X 7, DAY 0	0/5	--	10/10	10.5	10.4	1.0
20	CMC + PBS CONTROL		SC; Q1D X 7, DAY 0	0/5	--	10/10	11.0	10.7	1.0
21	PBS CONTROL		SC; Q1D X 7, DAY 0	0/5	--	10/10	10.8	10.4	1.0
23	PBS CONTROL		SC; Q1D X 7, DAY 0	0/5	--	10/10	10.1	9.9	1.0
24	CMC + PBS CONTROL		SC; Q1D X 7, DAY 0	0/5	--	10/10	10.8	10.4	1.0
28	CMC + PBS CONTROL		SC; Q1D X 7, DAY 0	0/5	--	9/10	11.4	12.1	1.0
27	PBS CONTROL		SC; Q1D X10, DAY-1	0/5	--	10/10	9.9	9.8	1.0
25	PBS CONTROL		SC; Q1D X12, DAY-1	0/5	--	10/10	9.7	9.7	1.0
26	CMC + PBS CONTROL		SC; Q1D X12, DAY-1	0/5	--	10/10	9.3	9.2	1.0

ADD= AVERAGE DAY OF DEATH(SURVIVORS NOT INCLUDED IN CALCULATIONS).

GMTD=GEOMETRIC MEAN TIME TO DEATH = $(d_1 \times d_2 \times \dots \times d_n)^{1/n}$ where d_n is the day of death for each animal and surviving animals are assigned a value of 28 days).

VR= GMTD of experimental treated/ GMTD of PBS treated controls.

* = FOUR ANIMALS SACRIFICED DUE TO SEVERE ULCERATIONS AT THE INJECTION SITE.

**= FIVE ANIMALS SACRIFICED DUE TO SEVERE ULCERATIONS AT THE INJECTION SITE.

***= ONE ANIMAL SACRIFICED DUE TO SEVERE ULCERATION AT THE INJECTION SITE.

NOTE: EXPT. #26. DUE TO THE INCONSISTENT RESULTS OBTAINED WITH RIBAVIRIN CONTROL, WE SUSPECT THAT THE COMPOUND WAS IMPROPERLY PREPARED FOR USE.

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SOUTHERN RESEARCH INSTITUTE
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UPDATED: 01/11/87 : ADB

CUMULATIVE SUMMARY OF IN VIVO TEST RESULTS
-VENEZUELAN EQUINE ENCEPHALOMYELITIS (VEE) VIRUS IN CD-1 MICE-

EXP. NO.	CMPD #	DOSE (MG/KG)	RX RTE & SCHEDULE	UNINFECTED		INFECTED			
				DEAD/TOTAL	ADD	DEAD/TOTAL	ADD	GMTD	VR
9	AVS-0206	1000	SC; Q1D X 7, DAY-1	0/5	--	8/10	7.1	9.2	1.2
9		320		0/5	--	8/10	8.3	10.5	1.3
9		100		0/5	--	5/5	8.0	7.8	1.0
9		32		0/5	--	10/10	7.8	7.8	1.0
9		10		0/5	--	7/10	8.1	11.7	1.5
5	AVS-0360	100	SC; Q1D X 7, DAY 0	0/5	--	7/10	8.0	11.2	1.4
5		32		0/5	--	7/10	7.4	10.6	1.3
5		10		0/5	--	9/10	8.0	8.8	1.1
5		3.2		0/5	--	6/10	8.7	13.2	1.6
13	AVS-0360	100	SC; Q1D X 7, DAY-1	0/5	--	8/10	8.4	10.6	1.1
13		32		0/4	--	10/10	8.0	7.9	0.8
13		10		0/4	--	8/10	9.6	11.6	1.2
13		3.2		0/4	--	8/10	9.5	11.6	1.2
13		1.0		0/4	--	8/10	8.5	10.7	1.1
13	AVS-0360	3.2	SC; Q1D X12, DAY-1	0/5	--	9/10	8.8	9.8	0.9
13		1.0		0/5	--	9/10	8.4	9.5	0.9
9	AVS-0646	100	SC; Q1D X 7, DAY-1	0/5	--	7/7	6.7	5.9	0.7
9		32		0/5	--	8/10	8.3	10.4	1.3
9		10		0/5	--	9/10	8.3	9.4	1.2
9		3.2		0/5	--	7/7	8.6	8.4	1.1
9		1.0		0/5	--	8/10	7.9	10.1	1.3
13	AVS-0646	32	SC; Q1D X12, DAY-1	0/5	--	10/10	8.2	8.2	0.8
13		10		0/5	--	8/10	8.1	10.4	1.0
13		3.2		0/5	--	9/10	8.1	9.1	0.9
13		1.0		0/5	--	8/10	8.8	11.0	1.1
13		0.5		0/5	--	9/10	9.1	10.0	1.0
3	UNTREATED CONTROL		--	0/4	--	3/5	10.0	--	--
5	UNTREATED CONTROL		--	0/10	--	7/10	8.4	11.6	1.4
13	UNTREATED CONTROL		--	0/4	--	9/10	9.0	9.5	--
9	SHAM-INFECTED		--	0/5	--	--	--	--	--
5	SHAM-INFECTED		--	0/10	--	--	--	--	--
9	PBS CONTROL		SC; Q1D X 7, DAY-1	0/5	--	10/10	8.1	--	--
5	CMC + PBS CONTROL		SC; Q1D X 7, DAY 0	0/5	--	10/10	8.2	8.1	1.0
13	CMC + PBS CONTROL		SC; Q1D X12, DAY-1	0/5	--	8/10	8.3	10.4	1.0

ADD= AVERAGE DAY OF DEATH (SURVIVORS NOT INCLUDED IN CALCULATIONS).

GMTD= GEOMETRIC MEAN TIME TO DEATH = $(d_1 \times d_2 \times \dots \times d_n)^{1/n}$ where d_n is the day of death for each animal and surviving animals are assigned a value of 28 days).

VR= GMTD of experimental treated/ GMTD of DILUENT treated controls.

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