Award Number: W81XWH-18-2-0059

TITLE: A Phase 1 Randomized, Placebo-Controlled, Single Ascending Dose Study to Examine the Safety, Tolerability, and Pharmacokinetics of cP12 in Health Adults.

PRINCIPAL INVESTIGATOR: Richard A. Clark, MD

CONTRACTING ORGANIZATION: NeoMatrix Therapeutics Inc.

REPORT DATE: October 13, 2020

TYPE OF REPORT: Year 2 Quarter 4 Report (July 1, 2020 – September 29, 2020)

PREPARED FOR: U.S. Army Medical Research and Materiel Command
Fort Detrick, Maryland 21702-5012

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REPORT DATE: 010/13/2020

TYPE OF REPORT: Y2Q4 Quarterly Report

PREPARED FOR: U.S. Army Medical Research and Development Command
Fort Detrick, Maryland 21702-5012

REPORT DOCUMENTATION PAGE

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1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
10/13/2020	Quarterly Technical Report	07/01/2020-09/29/2020

4. TITLE AND SUBTITLE
A Phase I Randomized, Placebo-Controlled Single Ascending Dose Study to Examine the Safety, Tolerability and Pharmacokinetics of cP12 in Healthy Adults

5a. CONTRACT NUMBER
W81XWH-18-2-0059

5b. GRANT NUMBER
MB170008

5c. PROGRAM ELEMENT NUMBER

6. AUTHOR(S)
Richard A. Clark, MD and Caron Shake, PhD

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5d. PROJECT NUMBER

5e. TASK NUMBER

5f. WORK UNIT NUMBER

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
Neomatrix Therapeutics, Inc
25 Health Sciences Drive
Stony Brook, NY 11790-3350

8. PERFORMING ORGANIZATION REPORT NUMBER

9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)

U.S. Army Medical Research and Development Command
Fort Detrick, Maryland 21702-5012

10. SPONSOR/MONITOR'S ACRONYM(S)

11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION / AVAILABILITY STATEMENT

Approved for Public Release; Distribution Unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT

The overall objective of this proposal is to assess the safety and tolerability of single ascending intravenous doses of cP12 in healthy subjects. This is a randomized double-blind, placebo-controlled single ascending dose study to evaluate the safety, tolerability, and pharmacokinetic profile of cP12 in healthy male and female subjects. Each subject is randomized to receive either a single dose of cP12 or placebo. Initial IRB, FDA and HRPO approval was given to recruit and screen subjects for 4 Cohorts (n=32) plus an option Cohort 5 (n=8) to be given a dose equal to, or less than, the dose given to Cohort 4. Cohorts 1-4 have been completed and no SAE's were noted. We submitted Amendment 4 to give a higher dose in Cohort 5 to the IRB and received approval (Amendments 1-3 were minor and did not need approvals). We then submitted Amendment 4 to the FDA and have received no comments after two months. Amendment 4 was submitted to HRPO December 30, 2019 and received approval on January 7, 2020. Cohort 5 dosing was completed in February 2020. Data for entire Phase1 trial was locked on April 2, 2020

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			USAMRMC
Unclassified	Unclassified	Unclassified	Unclassified		19b. TELEPHONE NUMBER *(include area code)*

TABLE OF CONTENTS

1. **INTRODUCTION:** Narrative that briefly (one paragraph) describes the subject, purpose and scope of the research.

The overall objective of this proposal is to assess the safety and tolerability of single ascending intravenous (IV) doses of cP12 in healthy subjects.

This is a randomized double-blind, placebo-controlled single ascending dose (SAD) study to evaluate the safety, tolerability, and PK profile of cP12 in healthy male and female subjects. Each subject will be randomized to receive either a single dose of cP12 or placebo.

2. **KEYWORDS:** Provide a brief list of keywords (limit to 20 words).

Assess the safety, tolerability and pharmacokinetics

3. **ACCOMPLISHMENTS:** The PI is reminded that the recipient organization is required to obtain prior written approval from the awarding agency Grants Officer whenever there are significant changes in the project or its direction.

What were the major goals of the project?
List the major goals of the project as stated in the approved SOW. If the application listed milestones/target dates for important activities or phases of the project, identify these dates and show actual completion dates or the percentage of completion.

Specific Aim 1: Develop and validate bioanalytic assay for cP12 assay in human plasma and urine (months 1-24) UPDATE Status of all tasks below as needed.

Major Task 1: Development and Validation of cP12 Assay in Human Plasma. Months 1-6.

Task 1.1: Set-up of HPLC/MS/MS Human Plasma Assay. Months 1-3. 100%
- STATUS: COMPLETED, MONTH 0. 100%

Task 1.2: Write Validation protocol. Months 1-3. 100%
- STATUS: COMPLETED, MONTH 1. 100%

Task 1.3: Validation of Human Plasma Assay. Months 4-6. 100%
- STATUS: COMPLETED, MONTH 3. 100%

Task 1.4: One-month frozen sample stability at -70° C and -20° C. Months 4-6.
- STATUS: COMPLETED, MONTH 3. 100%

Task 1.5: Audited Validation Report. Months 4-6.
- STATUS: COMPLETED, MONTH 6. 100%

Task 1.6: Extended Human Plasma Stability to 6 months.
- STATUS: COMPLETED, MONTH 10. 100%

Task 1.7: Extended Human Plasma Stability Report.

- STATUS: COMPLETED, MONTH 11. 100%

Milestone Achieved: Development & Validation of cP12 Assay in Human Plasma. Month 6.

- STATUS: COMPLETED, MONTH 6.

Major Task 2: Development and Validation of cP12 Assay in Human Urine. Months 1-6.

Task 2.1: Set-up of HPLC/MS/MS Human Urine Assay. Months 1-3.

- STATUS: COMPLETED, MONTH 0. 100%

Task 2.2: Write Validation protocol. Months 1-3.

- STATUS: COMPLETED, MONTH 1. 100%

Task 2.3: Validation of Human Urine Assay. Months 4-6.

- STATUS: COMPLETED, MONTH 2. 100%

Task 2.4: One-month frozen sample stability at -70° C and -20° C. Months 4-6.

- STATUS: COMPLETED, MONTH 5. 100%

Task 2.5: Audited Validation Report. Months 4-6.

- STATUS: COMPLETED, MONTH 5. 100%

Task 2.6: Extended Human Urine Stability to 6 months.

- STATUS: COMPLETED, MONTH 10. 100%

Task 2.7: Extended Human Urine Stability Report.

- STATUS: COMPLETED, MONTH 11. 100%

Milestone Achieved: Development & Validation of cP12 Assay in Human Urine. Month 5

- STATUS: COMPLETED, MONTH 5.

~~**Major Task 3: Development and Validation of cP12 Assay in Dosing Solutions.**~~

- STATUS: Deleted as not required.

Major Task 4: Pharmacokinetic cP12 assays of Human Plasma samples and Human Urine samples. Months 13-31

Task 4.1: Analysis of human plasma and urine samples. Months 13-24.

- STATUS: Plasma and urine analysis for Cohorts 1-5 have been analyzed.

Task 4.2: If appropriate reanalysis will be performed. Months 14-24.

- STATUS: Completed.

Task 4.3: Incurred Sample Reproducibility. Months 13-24.

- STATUS: Completed.

Task 4.4: Sample storage. Months 13-30.

- STATUS: Completed.

Task 4.5: Sample disposal. Months 31.

- STATUS: No sample disposal.

Task 4.6: If appropriate Expedited analysis will be performed. Months 13-24.

- STATUS: Complete

Milestone Achieved: Analyses of all samples completed and results relayed to Celerion.

Month 24

- STATUS: Completed. Data was locked by Celerion on April 2, 2020.

Specific Aim 2: IRB and HRPO submission and approval (months 1-9)

Major Task 5: IRB Approval.

Task 5.1: Submit Protocol, Informed consent form and Investigator Brochure to IRB. Month 1.

- STATUS: COMPLETED, MONTH 0.

Task 5.2: Respond to IRB comments. Month 2.

- STATUS: COMPLETED, MONTH 0.

Milestone Achieved: IRB approval. Month 3.

- STATUS: COMPLETED, MONTH 0.
- Approval of Protocol Amendment 1 (minor) - 10 July 2018
- Approval of Protocol Amendment 2 (minor) - 25 February 2019
- Approval for Continuing Review - 9 July 2019
- Approval of Protocol Amendment 3 (minor) - 12 July 2019
- Approval of Protocol Amendment 4 (major) - 29 October 2019

Major Task 6: HRPO Approval.

Task 6.1: Submit Protocol, Informed consent form and Investigator Brochure to HRPO. Month 3.

- STATUS: COMPLETED, MONTH 1.

Task 6.2: Respond to HRPO comments. Months 3-6.

- STATUS: COMPLETED, MONTH 4.

Milestone Achieved: HRPO approval. Month 6

- STATUS: COMPLETED, MONTH 5.
- HRPO notified of IRB approval of Continuing Review July 9, 2019- Renewal approval, Expiration July 5, 2020.
- STATUS: USAMRMC HRPO renewal approval: Not needed as study is completed.
- Protocol Amendment 4 submitted and approval received January 7, 2020.

Major Task 7: Obtain FDA approval of any required changes.

Task 7.1: Submit Amended Protocol, Informed Consent Form and Investigator Brochure to FDA. Month 6-7.

- STATUS: FDA submission, April 3, 2019. Month 7.

- FDA submission of Protocol Amendment 4 - Nov 13 - Dec 13 2019.

Task 7.2: Respond to FDA comments. Month 8.

- STATUS: No comments.

Milestone Achieved: FDA approval. Month 9

- STATUS: Completed.

Specific Aim 3: Study design for first-in-human study to assess safety in humans of IV delivered cP12 (months 10-18)

Major Task 8: Recruit and Screen Subjects.

Task 8.1: Subject Recruitment (N=40). Months 10-18

STATUS: Completed.

Task 8.2: Subject Screening. Months 10-18

- STATUS: Completed.

Milestone Achieved: All subjects needed for study recruited and screened. Month 16

- STATUS: Completed.

Major Task 9: Conduct Clinical Trial of lowest (0.003mg/kg) cP12 dose.

Task 9.1: Test lowest cP12 dose (0.003mg/kg) in sentinel pair (one drug, one placebo). Month 10.

- STATUS: Dosing Completed.

Task 9.2: If appropriate. test 0.003mg/kg cP12 dose in six additional subjects (5 receiving cP12 dose, 1 receiving placebo). Month 10.

- STATUS: Infusion Completed, Safety data reviewed by Safety Review Committee. No concerns.

Milestone Achieved: 0.003mg/kg cP12 dose safe in 6 test subjects compared to 2 placebo controls. Month 10

- STATUS: Dosing Completed on July 9, 2019.
- Safety Review Committee Meeting occurred on 19 July 2019. Dose escalation approved.

Major Task 10: Conduct Clinical Trial of presumptive optimal cP12 dose

Task 10.1: Test presumptive optimal cP12 dose (0.01mg/kg) in sentinel pair (one drug, one placebo). Month 11

- STATUS: Dosing Completed, Month 10.

Task 10.2: If appropriate. test 0.01 mg/kg cP12 dose in six additional subjects (5 receiving cP12 dose, 1 receiving placebo). Months 11-12

- STATUS: Infusion Completed, Safety data reviewed by Safety Review Committee. No concerns.

***Milestone Achieved**: 0.01mg/kg cP12 dose safe in 6 test subjects compared to 2 placebo controls. Month 13*

- STATUS: Dosing Completed on July 26, 2019
- Safety Review Committee Meeting occurred on August 7, 2019. Dose escalation approved.

Major Task 11: Conduct Clinical Trial of 0.02mg/kg cP12 dose

Task 11.1: Test next cP12 dose (0.02mg/kg) in sentinel pair (one drug, one placebo). Month 17

- STATUS: Dosing Completed, Month 11.

Task 11.2: If appropriate test 0.02 mg/kg cP12 dose in six additional subjects (5 receiving cP12 dose, 1 receiving placebo). Month 19

- STATUS: Dosing Completed August 13, 2019, Month 11.

***Milestone Achieved:** 0.02mg/kg cP12 dose safe in 6 test subjects compared to 2 placebo controls. Month 19.*

- STATUS: Safety Review Committee Meeting occurred on August 21, 2019. Dose escalation approved.

Major Task 12: Conduct Clinical Trial of 0.04mg/kg cP12 dose

Task 12.1: Test highest dose cP12 dose (0.04mg/kg) in sentinel pair (one drug, one placebo). Month 20

- STATUS: Dosing Completed, Month 11.

Task 12.2: If appropriate. test 0.04 mg/kg cP12 dose in six additional subjects (5 receiving cP12 dose, 1 receiving placebo). Month 22

- STATUS: Dosing Completed August 30, 2019, Month 11.

***Milestone Achieved**: 0.04mg/kg cP12 dose safe in 6 test subjects compared to 2 placebo controls. Month 22*

- STATUS: Safety Review Committee Meeting occurred on September 11, 2019. Dose escalation approved for Cohort 5.

Major Task 13: Conduct Clinical Trial of Optional Cohort

Task 13.1: Test additional/repeat cP12 dose in sentinel pair (one drug, one placebo). Month 23

- STATUS: Dosing Completed.

Task 13.2: If appropriate, test additional/repeat cP12 dose in six additional subjects. (5 receiving cP12 dose, 1 receiving placebo). Month 25

Note: Protocol Amendment 4; Cohort 5 to be tested with 0.08mg/kg cP12 in 6 test subjects compared to 2 placebo Controls. IRB approval received, FDA submission (Nov 13- Dec 13, 2019) no comments received, HRPO submission December 30, 2019, HRPO approval January 7, 2020.

- STATUS: Dosing Completed February 2020, Month 14.

Milestone Achieved: Additional/repeat cP12 dose safe in 6 test subjects compared to 2 placebo controls. Month 25

STATUS: Dosing completed on February 21, 2020. Month 14.

Major Task 14: Biometrics of all data collected from Clinical Trial

Task 14.1: PK Analysis. Month 13-26.

- STATUS: Clinical Study Report Completed July 2020.

Task 14.2: Statistical Data Analysis and Summarization. Month 27-30.

- STATUS: Completed.

Task 14.3: ~~Celerion formatted report.~~ Clinical Study Report (CRS). Month 31-32

- STATUS: Completed July 2020

Milestone to Achieve: Biometrics completed of all collected data from Clinical Trial. Month 32.

- STATUS: Completed July 2020

Specific Aim 4: Submit clinical study report to FDA (months 10-30)

Major Task 15: Data capture, verification and disposition

Task 15.1: Data capture. Months 10-25.

STATUS: Completed: Database lock on April 2, 2020

Task 15.2: Data verification. Month 10-26.

STATUS: Completed: Database lock on April 2, 2020

Task 15.3: Data disposition. Month 27-30.

Completed: Database lock on April 2, 2020

Milestone Achieved: Data capture, verification and disposition completed. Month 30.

- STATUS: Completed: Database lock on April 2, 2020

Major Task 16: Report formatted for FDA submission

Task 16.1: Report formatted for FDA submission. Months 30-32.

- STATUS: Clinical Study Report published July 2020.

Task 16.2: Clinical Study Report submitted to FDA. Month 32.

- STATUS:

Milestone to Achieve: Clinical Study Report submitted to FDA Month 32.

- STATUS:

Specific Aim 5: Request Fast Track and Develop Phase 2a clinical trial protocol (months 1-12)

Major Task 17: Fast Tract Designation

Task 17.1: Request and prepare Briefing Package for FDA meeting regarding Phase 2a Clinical.
Trial Design. Month 1.

- STATUS: Month 6, FTD sent to FDA 5 March 2019.

Task 17.2: Respond to FDA comments. Month 2.

- STATUS: Month 5, Completed.

Milestone Achieved: Fast Track Designation received. Month 3.

- STATUS: Month 6, Completed.

Major Task 18: Develop Phase 2a Clinical Trial Protocol

Task 18.1: ~~Request and~~ Prepare Briefing Package for FDA meeting regarding Phase 2a Clinical Trial Design. ~~Month 3~~. This subtask should have been Month 33 as it cannot be done until the Clinical Study Report is completed (Major Task 16 Month 30-32).

STATUS: Completed and Submitted on 17 September 2020.

Task 18.2: ~~Respond to FDA comments.~~ This Task should have been "Request a Phase 2a Guidance Meeting with the FDA" ~~Month 3=~~6 Month 33

- STATUS:

Task 18.3: Type C Phase 2a Guidance Meeting schedule and attended. ~~Month 6-9.~~ This subtask should have been Month 35

- STATUS:

Task 18.4: Respond to FDA comments from Phase 2a Guidance Meeting. ~~Month 9-12.~~ This subtask should have been scheduled Month 36.

- STATUS:

Milestone to Achieve: Phase 2a Clinical Trial Design Amended and writing of full Phase 2a protocol to proceed. ~~Month 12.~~ Month 36

- STATUS:

What was accomplished under these goals?

For this reporting period describe: 1) major activities; 2) specific objectives; 3) significant results or key outcomes, including major findings, developments, or conclusions (both positive and negative); and/or 4) other achievements. Include a discussion of stated goals not met. Description shall include pertinent data and graphs in sufficient detail to explain any significant

results achieved. A succinct description of the methodology used shall be provided. As the project progresses to completion, the emphasis in reporting in this section should shift from reporting activities to reporting accomplishments.

<u>Specific Aim 1:</u> Develop and validate bioanalytic assay for cP12 assay in human plasma and urine (months 1-24)

Methods and results for the reporting period:

Plasma sample analysis is complete for Cohorts 1-5.

Key Findings or Accomplishments for Specific Aim 1:

Nothing to report.

<u>Specific Aim 2:</u> IRB and HRPO submission and approval (months 1-9).

Methods and results for the reporting period:

Nothing to report.

Key Findings or Accomplishments for Specific Aim 2:

HRPO approval obtained July, 2019.

<u>Specific Aim 3:</u> Study design for first-in-human study to assess safety in humans of IV delivered cP12 (months 10-18)

Methods and results for the reporting period:

Key Findings or Accomplishments for Specific Aim 3

Major Tasks 8: Recruit and Screen Subjects-Complete
Major Task 9: Conduct Clinical Trial of the lowest cP12 dose--Complete
Major Task 10: Conduct Clinical Trial of the presumptive optimal cP12 dose--Complete
Major Task 11: Conduct Clinical Trial of 0.02mg/kg cP12 dose--Complete
Major Task 12: Conduct Clinical Trial of 0.04mg/kg cP12 dose--Complete
Major Task 13: Conduct Clinical Trial of Optional Cohort (0.08mg/kg)--Complete

<u>Specific Aim 4:</u> Submit clinical study report to FDA (months 10-30)
Major Task 15: Data capture, verification and disposition. Complete
Major Task 16: Clinical Study Report completed July 2020

Methods and results for the reporting period:

No SAEs occurred during the Cohort 5 Clinical Trial (Major Task 13)

Key Findings or Accomplishments for Specific Aim 4:

No SAEs occurred during any of the five (5) Cohort Clinical Trials

<u>Specific Aim 5:</u> Request Fast Track and Develop Phase 2a clinical trial protocol (months 1-12)

Methods and results for the reporting period:

Nothing to report.

Key Findings or Accomplishments for Specific Aim 5:

Fast Track designation received month 6.

Phase 2a clinical trial protocol being drafted.

What opportunities for training and professional development has the project provided?
If the project was not intended to provide training and professional development opportunities or there is nothing significant to report during this reporting period, state "Nothing to Report."

Describe opportunities for training and professional development provided to anyone who worked on the project or anyone who was involved in the activities supported by the project. "Training" activities are those in which individuals with advanced professional skills and experience assist others in attaining greater proficiency. Training activities may include, for example, courses or one-on-one work with a mentor. "Professional development" activities result in increased knowledge or skill in one's area of expertise and may include workshops, conferences, seminars, study groups, and individual study. Include participation in conferences, workshops, and seminars not listed under major activities.

Nothing to report

How were the results disseminated to communities of interest?
If there is nothing significant to report during this reporting period, state "Nothing to Report."

Describe how the results were disseminated to communities of interest. Include any outreach activities that were undertaken to reach members of communities who are not usually aware of these project activities, for the purpose of enhancing public understanding and increasing interest in learning and careers in science, technology, and the humanities.

A Briefing was provided to our DoD Scientific Officer on 19 March 2020.

What do you plan to do during the next reporting period to accomplish the goals?
If this is the final report, state "Nothing to Report."

Describe briefly what you plan to do during the next reporting period to accomplish the goals and objectives.

Abstract submitted to the MHSRS for presentation of NMT findings during Phase 1 Clinical Trial entitled, "**A novel, bioactive peptide, cP12, for intravenous (IV) treatment of burns, produces pharmacokinetic (PK) concentrations in a Phase 1 Clinical Trial that correlate with cP12 concentrations causing microvascular vasodilation". Abstract accepted for podium talk but meeting was canceled. Abstracts were published in a special online synopsis of what was intended to be presented at the meeting.**

4. **IMPACT:** Describe distinctive contributions, major accomplishments, innovations, successes, or any change in practice or behavior that has come about as a result of the project relative to:

What was the impact on the development of the principal discipline(s) of the project?
If there is nothing significant to report during this reporting period, state "Nothing to Report."

Describe how findings, results, techniques that were developed or extended, or other products from the project made an impact or are likely to make an impact on the base of knowledge, theory, and research in the principal disciplinary field(s) of the project. Summarize using language that an intelligent lay audience can understand (Scientific American style).

The PK analysis at the dose that gave optimal efficacy in the preclinical porcine burn model, gave us blood levels in humans that were similar to the blood levels in swine at that dose. Now we know that the blood concentrations presumably needed for optimal efficacy in humans is the same as in swine, being 100pM to 10nM.

AEs of itching or transient hives occurred in several subjects of the 5th Cohort receiving 0.08mg/kg cP12 during or shortly after the 30 min intravenous infusing while subjects in the 4th Cohort receiving 0.04mg/kg had little reaction (no hives, but transient warmth of the skin or transient itching). No AEs were observed in the 2nd or 3rd Cohorts receiving 0.01 and 0.02mg/kg. At present we are planning to use doses no higher than 0.03mg/kg in our Phase 2a Clinical Trial.

What was the impact on other disciplines?
If there is nothing significant to report during this reporting period, state "Nothing to Report."

Describe how the findings, results, or techniques that were developed or improved, or other products from the project made an impact or are likely to make an impact on other disciplines.

Nothing to report.

What was the impact on technology transfer?
If there is nothing significant to report during this reporting period, state "Nothing to Report."

Describe ways in which the project made an impact, or is likely to make an impact, on commercial technology or public use, including:

- *transfer of results to entities in government or industry;*
- *instances where the research has led to the initiation of a start-up company; or*
- *adoption of new practices.*

Nothing to report.

What was the impact on society beyond science and technology?
If there is nothing significant to report during this reporting period, state "Nothing to Report."

Describe how results from the project made an impact, or are likely to make an impact, beyond the bounds of science, engineering, and the academic world on areas such as:

- *improving public knowledge, attitudes, skills, and abilities;*
- *changing behavior, practices, decision making, policies (including regulatory policies), or social actions; or*
- *improving social, economic, civic, or environmental conditions.*

Nothing to report.

5. **CHANGES/PROBLEMS:** The Project Director/Principal Investigator (PD/PI) is reminded that the recipient organization is required to obtain prior written approval from the awarding agency Grants Officer whenever there are significant changes in the project or its direction. If not previously reported in writing, provide the following additional information or state, "Nothing to Report," if applicable:

Changes in approach and reasons for change
Describe any changes in approach during the reporting period and reasons for these changes. Remember that significant changes in objectives and scope require prior approval of the agency.

None

Actual or anticipated problems or delays and actions or plans to resolve them
Describe problems or delays encountered during the reporting period and actions or plans to resolve them.

None

Changes that had a significant impact on expenditures

Describe changes during the reporting period that may have had a significant impact on expenditures, for example, delays in hiring staff or favorable developments that enable meeting objectives at less cost than anticipated.

To Date Neomatrix Therapeutics incurred the following costs that were not budgeted for in original budget submitted to DoD:

Cost Over Runs:

--Microconstants sample kits and yearly sample storage $19,635.00

--Propharma: DoD Required Independent Medical Monitor, $72,300.00

--Shipping: CSN $3,200.00, World Courier $987.00, FedEx $12,436 (cP12 stability studies).

--Licenses: MedDRA and WHODrug, $2,584.00

--Other: Celerion Change Order for Amendment 3 & 4 IRB submissions and inclusion of Injection Site Exam (to monitor for hypersensitivity) $3,418.00

--Stratum: IV infusion set compatibility with low dose cP12 under GMP conditions, $7,500

--University of Iowa Pharmaceuticals: stability testing and storage fees, $15,300

Significant changes in use or care of human subjects, vertebrate animals, biohazards, and/or select agents

Describe significant deviations, unexpected outcomes, or changes in approved protocols for the use or care of human subjects, vertebrate animals, biohazards, and/or select agents during the reporting period. If required, were these changes approved by the applicable institution committee (or equivalent) and reported to the agency? Also specify the applicable Institutional Review Board/Institutional Animal Care and Use Committee approval dates.

Significant changes in use or care of human subjects

Not applicable.

Significant changes in use or care of vertebrate animals.

Significant changes in use of biohazards and/or select agents

Not applicable.

6. **PRODUCTS:** List any products resulting from the project during the reporting period. If there is nothing to report under a particular item, state "Nothing to Report."

- **Publications, conference papers, and presentations**
  Report only the major publication(s) resulting from the work under this award.

Journal publications. *List peer-reviewed articles or papers appearing in scientific, technical, or professional journals. Identify for each publication: Author(s); title; journal; volume: year; page numbers; status of publication (published; accepted, awaiting publication; submitted, under review; other); acknowledgement of federal support (yes/no).*

None

Books or other non-periodical, one-time publications. *Report any book, monograph, dissertation, abstract, or the like published as or in a separate publication, rather than a periodical or series. Include any significant publication in the proceedings of a one-time conference or in the report of a one-time study, commission, or the like. Identify for each one-time publication: Author(s); title; editor; title of collection, if applicable; bibliographic information; year; type of publication (e.g., book, thesis or dissertation); status of publication (published; accepted, awaiting publication; submitted, under review; other); acknowledgement of federal support (yes/no).*

Nothing to report

Other publications, conference papers, and presentations. *Identify any other publications, conference papers and/or presentations not reported above. Specify the status of the publication as noted above. List presentations made during the last year (international, national, local societies, military meetings, etc.). Use an asterisk (*) if presentation produced a manuscript.*

Webinar presented to all NMT DoD contract Program Managers on March 19, 2020 entitled, "NeoMatrix Therapeutics Portfolio of intravenous and topical treatments for burns and other battlefield wounds".

Abstract submitted to the MHSRS for presentation of NMT findings during Phase 1 Clinical Trial entitled, "A novel, bioactive peptide, cP12, for intravenous (IV) treatment of burns, produces pharmacokinetic (PK) in a Phase 1concentrations in a Phase1 Clinical Trial that correlate with cP12 concentrations causing microvascular vasodilation". Abstract accepted for podium talk but meeting was canceled. Abstracts were published in a special online synopsis of what was intended to be presented at the meeting.

- **Website(s) or other Internet site(s)**
  List the URL for any Internet site(s) that disseminates the results of the research activities. A short description of each site should be provided. It is not necessary to include the publications already specified above in this section.

- **Technologies or techniques**

Identify technologies or techniques that resulted from the research activities. In addition to a description of the technologies or techniques, describe how they will be shared.

None.

- **Inventions, patent applications, and/or licenses**
  Identify inventions, patent applications with date, and/or licenses that have resulted from the research. State whether an application is provisional or non-provisional and indicate the application number. Submission of this information as part of an interim research performance progress report is not a substitute for any other invention reporting required under the terms and conditions of an award.

Nothing to report.

- **Other Products**
  Identify any other reportable outcomes that were developed under this project. Reportable outcomes are defined as a research result that is or relates to a product, scientific advance, or research tool that makes a meaningful contribution toward the understanding, prevention, diagnosis, prognosis, treatment, and/or rehabilitation of a disease, injury or condition, or to improve the quality of life. Examples include:
  - *data or databases;*
  - *biospecimen collections;*
  - *audio or video products;*
  - *software;*
  - *models;*
  - *educational aids or curricula;*
  - *instruments or equipment;*
  - *research material (e.g., Germplasm; cell lines, DNA probes, animal models);*
  - *clinical interventions;*
  - *new business creation; and*
  - *other*

Nothing to report.

7. PARTICIPANTS & OTHER COLLABORATING ORGANIZATIONS

What individuals have worked on the project?
Provide the following information for: (1) PDs/PIs; and (2) each person who has worked at least one person month per year on the project during the reporting period, regardless of the source of compensation (a person month equals approximately 160 hours of effort). If information is unchanged from a previous submission, provide the name only and indicate "no change."

Nothing to report.

Has there been a change in the active other support of the PD/PI(s) or senior/key personnel since the last reporting period?
If there is nothing significant to report during this reporting period, state "Nothing to Report."

If the active support has changed for the PD/PI(s) or senior/key personnel, then describe what the change has been. Changes may occur, for example, if a previously active grant has closed and/or if a previously pending grant is now active. Annotate this information so it is clear what has changed from the previous submission. Submission of other support information is not necessary for pending changes or for changes in the level of effort for active support reported previously. The awarding agency may require prior written approval if a change in active other support significantly impacts the effort on the project that is the subject of the project report.

Nothing to report.

What other organizations were involved as partners?
If there is nothing significant to report during this reporting period, state "Nothing to Report."

Describe partner organizations – academic institutions, other nonprofits, industrial or commercial firms, state or local governments, schools or school systems, or other organizations (foreign or domestic) – that were involved with the project. Partner organizations may have provided financial or in-kind support, supplied facilities or equipment, collaborated in the research, exchanged personnel, or otherwise contributed.

Nothing to report.

8. SPECIAL REPORTING REQUIREMENTS

COLLABORATIVE AWARDS: For collaborative awards, independent reports are required from BOTH the Initiating PI and the Collaborating/Partnering PI. A duplicative report is acceptable; however, tasks shall be clearly marked with the responsible PI and research site. A report shall be submitted to https://ers.amedd.army.mil for each unique award.

QUAD CHARTS: In addition to embedding an updated Quad Chart within this annual / final technical report, also submit a standalone copy as an attachment in PowerPoint file only (.ppt or .pptx) to CDMRP Reporting at usarmy.detrick.medcom-cdmrp.mbx.cdmrp-reporting@mail.mil and copy the assigned CDMRP Science Officer.

9. **APPENDICES:** Attach all appendices that contain information that supplements, clarifies or supports the text. Examples include original copies of journal articles, reprints of manuscripts and abstracts, a curriculum vitae, patent applications, study questionnaires, and surveys, etc.