AWARD NUMBER: W81XWH-20-2-0022

TITLE: University of Pennsylvania Clinical Trial Site Application for Kidney Cancer Research Consortium Award

PRINCIPAL INVESTIGATOR: Naomi B. Haas, M.D.

CONTRACTING ORGANIZATION: Trustees of the University of Pennsylvania

REPORT DATE: OCTOBER 2022

TYPE OF REPORT: ANNUAL

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

DISTRIBUTION STATEMENT: Approved for Public Release; Distribution Unlimited

The views, opinions and/or findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy or decision unless so designated by other documentation.

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1. REPORT DATE	**2. REPORT TYPE**	**3. DATES COVERED**
October 2022	Annual Report	15Sep2021 - 14Sep2022

4. TITLE AND SUBTITLE
University of Pennsylvania Clinical Trial Site Application for Kidney Cancer Research Consortium Award

5a. CONTRACT NUMBER
W81XWH-20-2-0022

5b. GRANT NUMBER
GRANT12942340

5c. PROGRAM ELEMENT NUMBER
W81XWH-20-2-0022

6. AUTHOR(S)
Naomi B. Haas

E-Mail:naomi.haas@pennmedicine.upenn.edu

5d. PROJECT NUMBER
KC190098

5e. TASK NUMBER

5f. WORK UNIT NUMBER

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

TRUSTEES OF THE UNIVERSITY OF PENNSYLVANIA
CLINICAL PRACTICES OF THE UNIVERSITY OF
3451 WALNUT ST STE 440A
PHILADELPHIA PA 19104-6205

8. PERFORMING ORGANIZATION REPORT NUMBER
#580467

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)
ACRN AA

11. SPONSOR/MONITOR'S REPORT NUMBER(S)
CIN: GFEBS001149304900001

12. DISTRIBUTION / AVAILABILITY STATEMENT

Approved for Public Release; Distribution Unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT

The purpose of the University of Pennsylvania Abramson Cancer Center Kidney Cancer Research Consortium (PENN/ACC KCRC) award is to support the development of a data sharing infrastructure using the Prometheus platform so that Penn can collaborate with other members of the KCRC in a seamless method and participate in consortium phase I and II clinical trials. Over this year one of funding, we have helped to form a governance structure for all of the members, which includes an external advisory board. We have formalized a contracting and review process between Penn and the lead coordinating site, MD Anderson Cancer Center. Following the completion of these tasks, we have both presented three clinical trials for consideration of KCRC participation and we have submitted the first KCRC translational protocol to the Penn and Central Institutional Review Boards for imminent activation at Penn. We anticipate a robust accrual to this protocol and future participation and accrual to future KCRC treatment protocols. Finally, the KCRC website has been activated.

15. SUBJECT TERMS
KCRC=Kidney Cancer Research Consortium; MDACC=MD Anderson Cancer Center; Penn/ACC = University of Pennsylvania Abramson Cancer Center

16. SECURITY CLASSIFICATION OF:			**17. LIMITATION OF ABSTRACT**	**18. NUMBER OF PAGES**	**19a. NAME OF RESPONSIBLE PERSON**
a. REPORT	**b. ABSTRACT**	**c. THIS PAGE**			USAMRDC
Unclassified	Unclassified	Unclassified	Unclassified	63	**19b. TELEPHONE NUMBER** *(include area code)*

TABLE OF CONTENTS

1. INTRODUCTION:

The goal of the University of Pennsylvania Abramson Cancer Center Kidney Cancer Research Consortium (PENN/ACC) participation is to meaningfully contribute to phase I and II clinical research in the context of multi-institutional collaborations with the 3 other member sites. Over the past year, while meeting monthly with other member sites, we have helped to form a governance structure for all of the groups and implemented a data sharing infrastructure which is based on the Prometheus platform. We have activated our first consortium trial "Monitoring Disease Burden and Biology Using Tumor Cell Free DNA in Metastatic Kidney Cancer" (MDA IRB# 2021-0379) in collaboration with Vanderbilt (a new member of KCRC) through MDACC coordination which will collect biospecimens for DNA methylation. In the past year, we have presented a neoadjuvant trial of pembrolizumab +/-lenvantinib in locally advanced renal cancer; **however, this was not funded in our DOD application so we are submitting a R03 for funding. In addition, we are proposing a "Time trial" to bring to the consortium which will streamline patient time attending infusions and will more efficiently electronically monitor patients for toxicity to IO therapies. We are also developing a consolidation trial for advanced renal cell carcinoma responding to combination IO therapy. Also, we continue to develop our pilot PSMA TGFB dnR CART trial for metastatic clear cell renal cancer. Further, we plan to open and accrue to 2 proposed trials from other consortium members. We anticipate that PENN/ACC participation in the Consortium will contribute patient numbers, intellectual input and translational research expertise to the KCRC and provide a critical platform for the co-development of renal cell carcinoma (RCC) clinical trials.**

2. KEYWORDS:

ACC= Abramson Cancer Center
API= Application Programming Interface
BIDMC=Beth Israel New England Deaconess Medical Center
DAG= Database and Applications Group
EAB=External Advisory Board
EDC= Electronic Data Capture
EHR=Electronic Health Record
GU= Genitourinary
IIT=Investigator Initiated Trial
IO=Immune checkpoint inhibitor combination
IRB=Institutional Review Board
KCRC= Kidney Cancer Research Consortium
MDACC= MD Anderson Cancer Center
PD1=Programmed death receptor 1
PENN= University of Pennsylvania
PSMA= Prostate Cancer Membrane Antigen
RCC=Renal Cell Carcinoma
TGFB=Transforming Growth Factor Beta
TKI=Tyrosine Kinase Inhibitor
UTSW= University of Texas Southwestern

4.ACCOMPLISHMENTS:

What were the major goals of the project?

Specific Aims
1. Design innovative clinical trials for the KCRC
2. Accrue at least 25 patients per year to KCRC trials
3. Perform translational research on samples obtained from KCRC trials

Major Task 1: Support an effective governance and management structure
Major Task 2: Endorse a harmonized protocol approval process
Major Task 3: Protocol participation, data automation, and monitoring platform
Major Task 4: Utilize Prometheus sample analysis infrastructure
Major Task 5: Create industry and philanthropic partnerships

Please refer to the next question for goals/tasks accomplished and timelines.

What was accomplished under these goals?

Specific Aims/Major Tasks	**Timeline**	**Penn/ACC**
Major Task 1: Design innovative clinical trials	**Months**	
Subtask 1: Submit for HRPO review	1-3	
Finalize cooperative agreements between institutions (contracting, IP agreements)	1-6	Cooperative contracting and intellectual property agreements between the PENN-ACC and MDACC were established months 1-6. KCRC Contractual Agreement was received from MDACC on 5/12/2020. PENN Lawyer, Kathleen Chen sent proposed changes 5/22/2020, MDACC routed to legal for signature 10/5/2020, The agreement was signed by ACC, MDACC, UTSW and BIDMC
Finalize data sharing infrastructure	1-6	The data sharing infrastructure was finalized in the past year: IRB Agreements were finalized between the MDACC coordinating center and the PENN/ACC. The biobanking protocol "Monitoring Disease Burden and Biology Using Tumor Cell Free DNA in Metastatic Kidney Cancer" (MDA IRB# 2021-0379) was the pilot protocol that identified and rectified details that impede activation. Major Task 3: Protocol participation, data automation, and monitoring platform:

		• By 10/20/20, the Application Programming Interface (API) was established. Under this Interface, the Penn electronic health record (EPIC) which contains data such as Demographics, Labs, Pathology, Vital Signs, Diagnosis, Staging, Performance Status as well as Tumor Measurements are linked to the Prometheus (with the same data det. Specifically, our ACC EHR and EDC set up "Hello World" and then an exchange test using anonymized patient data from a Penn Investigator initiated trial (IIT) was successfully implemented. Specific data are queried in EPIC Clarity and stored in a Penn Medicine database. • Additional tables are used to store protocol level data and the research labs that are collected for a given protocol. • API Request Client makes an API request with secure authentication for a subject(s) enrolled on a protocol(s) for a given date range. • API Endpoint API returns the data objects in JSON format to the client. *i.e. demographics, labs, vitals, etc.* Further API engagement will be required with implementation of KCRC clinical trials.
Subtask 3: Engage with Pharma and in-house team to develop clinical trial concepts	1-36	Proposed Penn Protocol Concepts: 1. Evaluating Lenvatinib and Pembrolizumab in sustaining progenitor exhausted CD8 T cells and durable T cell reinvigoration in renal cell carcinoma (Merck supported) 2. PSMA/TGFB CAR trial (Tmunity supported) Other CAR trials (Penn Philanthropy supported) Renal and other GU biobanking (Dibona, Mazzoleni and Penn Breakthrough Bike Challenge provide support) **3. Meeting 6/3/22 at ASCO with other KCRC sites at breakfast to engage pharma**
Subtask 4: Develop and expand collaborations with translational researchers and industry partners for correlative endpoints	1-36	• A biomarker trial proposed by S. Haake: "Monitoring Disease Burden and Biology Using Tumor Cell Free DNA in Metastatic Kidney Cancer" (MDA IRB# 2021-0379) • The trial was initiated with MDACC IRB and submitted to WCG IRB April 2021. • WCG IRB meeting was on 5/25/2021 • Subsequent submission to WCG IRB for ICD

		configuration in accordance with state • Received acknowledgement from Penn IRB to cede IRB review on 9/27/21. IRB application submitted to WCG for central approval on 10/5/21.
Subtask 5: Submit clinical trial concepts for review to KCRC	3-36	3 proposals have been reviewed: 1. Cryoablation of metastasis with ipilimumab and nivolumab 2. PSMA/TGFB CAR tumor agnostic trial 3. Evaluating Lenvatinib and Pembrolizumab in sustaining progenitor exhausted CD8 T cells and durable T cell reinvigoration in renal cell carcinoma **4. Consolidation therapy clinical trial and Time study proposals in development for group participation. Presented at EAB meeting 7/15/2022**
Subtask 6: Participate in monthly KCRC meetings to vet and approve trials	1-36	The meetings are held monthly on the 3rd Tuesday of the month at 5pm EST **Ongoing and Dr Haas has attended all but one meeting (July 19, 2022)**
Milestone(s) achieved:		
HRPO approval	3	
Contracting completed	6	**See Major Task 1:** Finalize cooperative agreements between institutions (contracting, IP agreements)
Data sharing infrastructure complete	6	See Finalize data sharing Infrastructure Major Task1
First clinical trial concept submitted	6	July 2020 - Cryoablation of metastasis with ipilimumab and nivolumab- KCRC committee voted no due to significant overlap with other trials open at the KCRC institutions PSMA/TGFB CAR trial to follow tumor agnostic trial- KCRC enthusiasm for this after preliminary data achieved in Penn tumor agnostic trial. KCRC tentatively approved development of "Evaluating Lenvatinib and Pembrolizumab in sustaining progenitor exhausted CD8 T cells and durable T cell reinvigoration in renal cell carcinoma" as a multi-center KCRC trial.
Major Task 2: Accrue at least 25 patients per year to KCRC studies		
Subtask 1: Reciprocally open KCRC trials at Clinical Trial Sites	1-36	Evaluating Lenvatinib and Pembrolizumab in sustaining progenitor exhausted CD8 T cells and durable T cell reinvigoration in renal cell carcinoma

		has been proposed and multi-center trial partially funded by Merck was submitted as a DOD clinical trial proposal but not funded. RO3. grant award planned. Initial planned accrual at MDACC and Penn/ACC. **We plan to open one of the two proposed front line clear cell RCC trials proposed (UTSW or Vanderbilt) as well as Fortune: Phase 2 Study of Combination Tivozanib and Nivolumab in Advanced Non-Clear Cell Renal Cell Carcinoma" (UMich).**
Subtask 2: Optimize patient recruitment strategies	1-36	**Ongoing. A patient kidney cancer conference (Judy Nicholson Kidney Cancer Foundation) will convene at ACC/PENN on September 23, 2022.** The biobanking trial and perioperative trial will be mentioned.
Milestone(s) achieved:		
Patient accrual rate achieved	1-36	Haake "Monitoring Disease Burden and Biology Using Tumor Cell Free DNA in Metastatic Kidney Cancer" (MDA IRB# 2021-0379)" opened at Penn 10/21 (all KCRC sites are opening). **15 patients have enrolled in the trial. Of those 15 patients 4 have passed away. We have collected samples 27 times (4 tubes each time) for a total of 96 tubes.**
Aim 3: Perform translational research on samples obtained from KCRC studies		
Subtask 1: Finalize correlative sample tracking infrastructure	1-6	See Major Task1, Subtask 4. Haake "Monitoring Disease Burden and Biology Using Tumor Cell Free DNA in Metastatic Kidney Cancer" (MDA IRB# 2021-0379) biobanking trial activated and accruing. The institutional tracking infrastructure was implemented and works.
Subtask 2: Collect correlative samples	3-36	**15 patients enrolled to Monitoring Disease Burden and Biology Using Tumor Cell Free DNA in Metastatic Kidney Cancer" (MDA IRB# 2021-0379) since October 2021.**
Subtask 3: Transfer samples to site performing analyses	3-24	**96 samples obtained for MDA IRB# 2021-0379 transferred to Vanderbilt to date.**
Subtask 4: Perform analyses	12-36	Nothing to report
Subtask 5: Correlation to clinical data	12-36	**RECIST forms from MDA IRB# 2021-0379 in EMR and submitted to both MDACC and to Vanderbilt**
Milestone(s) achieved:		
Incorporation of	1-36	Nothing to Report

translational research data into clinical trials		

What opportunities for training and professional development has the project provided?

Judy Nicholson Kidney Cancer Symposium for patients occurred October 1, 2021 and Janaiya Reason created website for kidney cancer clinical trial support. **Patient Symposium (**Penn ACC and Judy Nicholson Kidney Cancer) **on September 23, 2022. Drs. Haas, Mamtani, Lee and Narayan were all speakers. Dr S. Haake from Vanderbilt presented his DOD biobank project.**

How were the results disseminated to communities of interest?

Judy Nicholson Kidney Cancer Symposium for patients to occurred October 1, 2021 and **Patient Symposium took place September 23,2022.**

What do you plan to do during the next reporting period to accomplish the goals?

Now that the Contracting, and Data Exchange Infrastructure is complete, the Penn/ACC major efforts will be directed to opening clinical and translational trials and accruing patients to these trials. We will continue to work with Philanthropy and Industry to support pilot projects and **Dr. Narayan is submitting RO3 application to support infrastructure for Phase II "Evaluating Lenvatinib and Pembrolizumab in sustaining progenitor exhausted CD8 T cells and durable T cell reinvigoration in renal cell carcinoma" as a multi-center KCRC trial. Dr Mamtani is compiling Time study proposal for KCRC. Dr Haas and Fellow Dr. Jeffrey Shevach with Dr. Phil Pierorazio (urology) are writing a consolidation trial for patients with metastatic renal cancer who achieve deep response to IO therapy at 6 mo.**

4. **IMPACT:** D*escribe 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?

The PI and other personnel involved in the Coordinating Center worked together to create an enabling infrastructure that will transform the way clinical trials are performed for patients with renal cell carcinoma. We anticipate that the Prometheus Infrastructure will accelerate trial design, budgeting and approval, efficient risk-based monitoring and third party sample management will permit execution of novel trials.
Collaboration with now 6 institutions in the KCRC will permit more rapid initiation and accrual to clinical trials that would be difficult to complete at any single center. In addition, we have identified

our catchment areas and underserved kidney cancer diseases and disease stages for clinical trials. Implementation of smaller trials in these populations will help provide valuable insights into these orphan diseases and will help provide objective information on the efficacy of therapies chosen to manage these diseases.

Renal Clear Cell Carcinoma Incidence Rates, Stratified by Race, Adults (18+), Both Sexes, University of Pennsylvania 2013-2017

Race/ Ethnicity	Stats	Year 2013	2014	2015	2016	2017	13'-17'
White	count	228	213	240	232	255	1168
	rate	75%	74%	85%	78%	79%	78%
Black/African American	count	64	58	37	54	54	267
	rate	21%	20%	13%	18%	17%	18%
Asian	count	6	7	3	5	7	28
	rate	2%	3%	1%	2%	2%	2%
Other/ Unknown	count	6	9	4	6	6	31
	rate	2%	3%	1%	2%	2%	2%

*Other/Unknown includes Unknown, American Indian, Native Hawaiian/Pacific Islander, & More than one race

KCRC

NAACCR AGE-ADJUSTED INCIDENCE RATES, 2000 US STANDARD POPULATION BY RACE/ETHNICITY KIDNEY AND RENAL PELVIS, ALL AGES, BOTH SEXES, PENNSYLVANIA, 2013-2017

Race/Ethnicity	Stat	Year 2013	2014	2015	2016	2017	2013-2017*
White	Rate	17.11	17.05	17.65	17.80	17.84	17.49
	Count	2,394	2,410	2,504	2,544	2,591	2,489
Black	Rate	22.94	23.69	22.61	21.42	21.89	22.49
	Count	327	337	325	320	327	327
Asian/Pacific Islander	Rate	8.24	6.84	5.86	7.61	3.89	6.36
	Count	24	26	22	29	17	24
American Indian/ Alaska Native	Rate	~	~	~	~	~	~
	Count	~	~	~	~	~	~
Hispanic	Rate	13.24	14.33	17.27	16.27	15.13	15.31
	Count	64	74	93	97	88	83
Non-Hispanic White	Rate	17.27	17.13	17.71	17.83	18.06	17.60
	Count	2,347	2,355	2,428	2,466	2,533	2,426
Non-Hispanic Black	Rate	23.67	24.17	23.42	22.08	22.22	23.10
	Count	322	328	321	313	316	320

(Accessed on 5-19-2021)
Results based on data submitted in December 2019.
* Average annual cases.
Rates are per 100,000 population and are age-adjusted by five-year age groups to the 2000 U.S. standard population based on single years of age.
N.B. In areas with small Latino populations, methods to indirectly identify Latinos (like NHIAv2) can overestimate the ethnicity-specific counts of cancer cases. Also, even small errors in Latino population estimates can affect the magnitude of the cancer rates.
~ Counts and rates are suppressed when fewer than 6 cases were reported for the specific cancer. The suppressed cases, however, are included in the counts and rates for All Sites combined.

KC

What was the impact on other disciplines?

Nothing to report

What was the impact on technology transfer?

Nothing to Report

What was the impact on society beyond science and technology?

Nothing to Report this cycle.

5. CHANGES/PROBLEMS:

See below.

Actual or anticipated problems or delays and actions or plans to resolve them

The Covid-19 pandemic resulted in a hiring freeze at Penn/ACC. As a consequence, we lost much of our research staff which resulted in delays of clinical trial implementation. The research staff have largely been replaced. **New program manager, two clinical research coordinators and two research nurses hired since 1/2022.**

Changes that had a significant impact on expenditures

Less Expenditure than expected due to Covid-19 pandemic resulting in research staff needing to be replaced and delaying implementation of the KCRC award. **Our estimate of fund that are remaining at the year 3 is and is reflected in the attached financial report to date. There is a delay in billing for fiscal year 2021, so the financial report will be less than the actual spending. We are requesting a budget of (Direct Cost, Indirect cost) which does not exceed the costs previously requested for a one year budget period. Please refer to the attached proposed budget and budget justification for the extension period reflecting the funds being requested.**

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

Significant changes in use or care of human subjects

Nothing to Report

Significant changes in use or care of vertebrate animals

Not applicable

Significant changes in use of biohazards and/or select agents

Nothing to Report

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**

Journal publications.

A review of adjuvant therapy for renal cancer has been accepted for publication in manuscript form as of September 2022.

Books or other non-periodical, one-time publications.

Dr. Haas contributed chapter Perioperative therapy of high-risk kidney cancer to ICUD. An abbreviated review has been accepted for publication in manuscript form as of September 2022.

Other publications, conference papers and presentations.

Nothing to Report

- **Website(s) or other Internet site(s)**

KCRC website is now live.

- **Technologies or techniques**

Nothing to Report

- **Inventions, patent applications, and/or licenses**

Nothing to Report

- **Other Products**

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".

Example:

Name:	*Mary Smith*
Project Role:	*Graduate Student*
Researcher Identifier (e.g. ORCID ID):	*1234567*
Nearest person month worked:	*5*

Contribution to Project: *Ms. Smith has performed work in the area of combined error-control and constrained coding.*

Funding Support: *The Ford Foundation (Complete only if the funding support is provided from other than this award.)*

Name: **Naomi B. Haas, M.D.**
Project Role: Principal Investigator
Researcher Identifier: https://orcid.org/0000-0001-8907-7968
Nearest person month worked: 1.6

Contribution to Project: Dr. Haas is the PI and has participated in the monthly KCRC consortium calls. She has mentored Dr. Narayan and co-developed his proposed "phase II investigator-initiated trial with neoadjuvant pembrolizumab (PD-1) +/-lenvantinib (VEGFR-TKI) pre-nephrectomy followed by adjuvant pembrolizumab in locally advanced RCC." Additionally, she meets weekly with the kidney cancer research staff to review proposals received and submitted to the KCRC. **Dr. Narayan is submitting RO3 application to support infrastructure for Phase II "Evaluating Lenvatinib and Pembrolizumab in sustaining progenitor exhausted CD8 T cells and durable T cell reinvigoration in renal cell carcinoma" as a multi-center KCRC trial. Dr Mamtani is compiling Time study proposal for KCRC. Dr Haas and Fellow Shevach with Dr Pierorazio (urology) are writing a consolidation trial for patients who achieve deep response to IO therapy at 6 mo. Further, The pilot PSMA/TGFBdnR CAR trial is anticipated to begin enrolling patients in the Spring 2023 and we anticipate proposing to open to the KCRC and expansion in 2023-2024**.

Name: **Vivek Narayan, M.D.**
Project Role: Co-Investigator
Nearest person month worked: 1

Contribution to Project: Dr. Narayan has developed a phase II investigator-initiated trial with neoadjuvant pembrolizumab +/-lenvantinib pre-nephrectomy followed by adjuvant pembrolizumab in locally advanced RCC. This is funded by Merck **and Dr. Narayan is applying for a R03 award**. This idea has been reviewed by the KCRC and is planned to be implemented at MDACC.

Name: ***Matt Doyle Replaced Janaiya Reason***
Project Role: PENN/ACC Institutional Clinical Trial Coordinator
Researcher Identifier (e.g. ORCID ID): NA
Nearest person month worked: 2

Contribution to Project: Mr Doyle replaced Ms. Reason in this role as of May 2022, and coordinates the efforts between PENN/ACC/KCRC and the lead site, MDACC and the other participating sites including the following:
1) Arrange the quarterly calls for the renal cancer clinical trials working group;
2) Continue to be on the monthly calls with the Kidney cancer clinical consortium and transmit information to the PENN/ACC investigators, with emphasis on new trial opportunities.

3) Keep an active list of renal cancer clinical trials ongoing in all sites in Kidney cancer clinical Consortium
4) Ms. Reason resigned her position as of May, 2022. Mr. Matthew Doyle has been hired to this position as of May 25, 2022.

Name: **Elisabeth George**
Project Role: Research Nurse
Researcher Identifier (e.g. ORCID ID): NA
Nearest person month worked: 1.2

Contribution to Project: ***Ms. George*** reviewed the consent and protocol and assists in the screening, assessment of AEs, administration and overall management of patients participating in Aravive Phase II trial of AVB-500 +/-cabozantinib +/- nivolumab in patients with metastatic clear cell RCC.

Name: ***Lauren Walsh replaced A. Kathleen Harlacker***
Project Role: Research Nurse
Researcher Identifier (e.g. ORCID ID): NA
Nearest person month worked: 1

Contribution to Project: ***Ms. Walsh replaced Ms. Harlacker who had previously replaced*** *Ms. Mindy Dahan and* reviewed the consent and protocol for the biobanking protocol "Monitoring Disease Burden and Biology Using Tumor Cell Free DNA in Metastatic Kidney Cancer" (MDA IRB# 2021-0379) and Dr. Narayans neoadjuvant kidney cancer proposal, "*Phase II investigator-initiated trial with neoadjuvant pembrolizumab (PD-1) +/-lenvantinib (VEGFR-TKI) pre-nephrectomy followed by adjuvant pembrolizumab in locally advanced RCC."*
Ms. Harlacker is out on indefinite medical leave and has been replaced by Ms. Lauren Walsh.

Has there been a change in the active other support of the PD/PI(s) or senior/key personnel since the last reporting period?

Yes, please see attached other support documents.

What other organizations were involved as partners?
Nothing to Report

8. SPECIAL REPORTING REQUIREMENTS

COLLABORATIVE AWARDS: Nothing to report.
For collaborative awards, independent reports are required from BOTH the Initiating Principal Investigator (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://ebrap.org/eBRAP/public/index.htm*** *for each unique award.*

QUAD CHARTS: *If applicable, the Quad Chart (available on https://www.usamraa.army.mil/Pages/Resources.aspx) should be updated and submitted with attachments.*

9. APPENDICES: Nothing to Report

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.

Other Support

Name of Individual: Naomi B Haas
Commons ID: NAOMHAAS

Title: ***(UPCC 15919): An Open-Label, Multicenter, First-in-Human, Dose-Escalation, Phase 1 Study of INBRX-105 in Patients with Locally Advanced or Metastatic Solid Tumors, Hodgkin or Non-Hodgkin Lymphoma***

Major Goals: To determine safety and efficacy using progression free survival of INBRX-105 in non small cell lung cancer, lymphoma, prostate cancer and melanoma. Aim 1: dose limiting toxicity; Aim2: progression free survival in these cancers.

Project Number: Ph1 INBRX-105 Status of Support: Active
Source of Support: Inhibrix, Inc.
Name of PD/PI: Haas Role: PI
Sponsor Contact: Klaus M. Wagner; Klaus@inhibrix.com
Primary Place of Performance: University of Pennsylvania
Project Period: 1/16/2020-6/30/2024 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2023	2024
Effort	0.6 Cal.	0.6 Cal.

Title: ***(UPCC 13816): A Phase 3, Multinational, Randomized, Open-Label, Parallel-Arm Study of Avelumab (MSB0010718C) in Combination with Axitinib (Inlyta®) versus Sunitinib (Sutent®) Monotherapy in the First-Line Treatment of Patients with Advanced Renal Cell Carcinoma***

Major Goals: To determine overall survival and progression free survival of a PDL-1 inhibitor in combination with a VEGFR TKI (axitinib) versus a VEGFRTKI (sunitinib) alone. Aim 1: progression free survival; Aim2: overall survival .

Project Number: B9991003 Status of Support: Active
Source of Support: Pfizer Inc
Name of PD/PI: Haas Role: PI
Sponsor Contact: Paul Sanders; Paul.Sanders@Pfizer.com
Primary Place of Performance: University of Pennsylvania
Project Period: 8/3/16-12/31/22 Total Award Amount
Person Months (Calendar/Academic/Summer) per budget period.

Year	2022
Effort	0.6 Cal.

Title: **UPCC 09817:*A Phase III, Randomized, Double-Blind, Placebo-Controlled Clinical Trial of Pembrolizumab (MK-3475) as Monotherapy in the Adjuvant Treatment of Renal Cell Carcinoma Post Nephrectomy (KEYNOTE-564)***

Major Goals: To measure overall survival and disease free survival in patients with completely resected high risk clear cell renal cancer receiving pembrolizumab or placebo. Aim 1: disease free survival; Aim2: overall survival .

Project Number: MK-3475-564-00-Haas Status of Support: Active
Source of Support: Merck & Co., Inc.
Name of PD/PI: Haas Role: PI
Sponsor Contact: Ashley Buckley; ashley.buckley@merck.com
Primary Place of Performance: University of Pennsylvania
Project Period: 6/19/2017-12/31/2024 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2023	2024
Effort	0.12 Cal.	0.12 Cal.

Other Support

Name of Individual: Naomi B Haas
Commons ID: NAOMHAAS

Title: **(UPCC 4820): Merck: An Open-label, Randomized Phase 3 Study of MK-6482 Versus Everolimus in Participants With Advanced Renal Cell Carcinoma After Prior PD-1/L1 and VEGF-Targeted Therapies (MK-6482-005-1525)**
Major Goals: To compare MK-6482 to everolimus with respect to PFS per RECIST 1.1 as assessed by BICR. Hypothesis (H1): MK-6482 is superior to everolimus with respect to PFS per RECIST 1.1 by BICR.
Project Number: MK-6482-005-00 Status of Support: Active
Source of Support: Merck & Co., Inc.
Name of PD/PI: Haas Role: PI
Sponsor Contact: Bradley, S'Leah A sleah.bradley@merck.com
Primary Place of Performance: University of Pennsylvania
Project Period: 4/30/2020-5/31/2023 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2023
Effort	0.12 Cal.

Title: ***Phase II study of front line therapy with nivolumab and salvage nivolumab + ipilimumab in patients with advanced renal cell carcinoma.***
Major Goals: To measure response rate, progression free survival and overall survival in patients with metastatic renal cancer receiving nivolumab followed by the addition of ipilimumab for progression. The primary endpoint is response rate in patients with clear cell RCC. Single cell RNA sequencing is performed in a cohort of patients with tumor at baseline and at progression to determine markers of resistance.Aim 1: overall response rate; Aim2: overall survival; Aim3: single cell RNA seq as predictor of response.
Project Number: GU16-260 Status of Support: Active Project Period: 9/1/17-12/31/22
Source of Support: Hoosier Cancer Research Network, Inc
Name of PD/PI: Haas Role: PI Total Award Amount:
Sponsor Contact: Robyn Lillie; rlillie@hoosiercancer.org
Primary Place of Performance: University of Pennsylvania
Person Months (Calendar/Academic/Summer) per budget period.

Year	2022
Effort	0.12 Cal.

Title: ***(UPCC 04821): A Phase 1B/2 Randomized, Study Of Avb-S6-500 In Combination With Cabozantinib Versus Cabozantinib Alone In Patients With Advanced Clear Cell Renal Cell Carcinoma Who Have Received Front-Line Treatment (Avb500-Rcc-003)***
Major Goals: Evaluate the safety and tolerability of AVB-S6-500 in combination with cabozantinib in subjects with advanced clear cell renal cell carcinoma
Project Number: Haas-AVB500-RCC-003 Status of Support: Active
Source of Support: Aravice, Inc. Name of PD/PI: Haas Role: PI
Sponsor Contact: Vanessa Esquibel, Vesquibel@aravive.com
Primary Place of Performance: University of Pennsylvania
Project Period: 7/7/21-9/30/28 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2023	2024	2025	2026	2027
Effort	0.36 Cal.	0.36 Cal.	0.36 Cal.	0.36 Cal.	0.36 Cal.

Other Support

Name of Individual: Naomi B Haas
Commons ID: NAOMHAAS

Title: ***Assessment of Tumor Perfusion Changes in Response to Pazopanib in Renal Cell Carcinoma***
Major Goals: To determine if dynamic contrast enhancement changes in MRI are predictive of response to pazopanib in patients with metastatic clear cell renal cancer. This aim will correlate with progression free survival. Aim 1: DCE measurement correlating with PFS.
Project Number: GSK CT (UPCC 34809) Status of Support: Active
Source of Support: GLAXOSMITHKLINE
Name of PD/PI: Haas Role: PI
Sponsor Contact: Kristin Haines; kristin.haines@novartis.com
Primary Place of Performance: University of Pennsylvania
Project Period: 08/30/2010-6/30/24 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2023	2024
Effort	0.6 Cal.	0.6 Cal.

Title: ***Epigenetic mechanisms of drug resistance in renal cell carcinoma***
Major Goals: To determine the role of epigenetics in resistance mechanisms to RTKIs in ccRcc, to assess the epigenomic signature associated with resistance phenotype, and to develop novel therapeutic strategies to induce epigenetic reprogramming and consequently overcome loss of response to RTKIs. Aim1: Determine whether EZH2 and AR tumor expression is associated with shorter recurrence-free survival in RCC patients treated with RTKIs in the adjuvant setting. Aim2: Determine circulating levels of mir-26a in RCC patients treated with RTKIs. Aim3: Determine circulating levels of hK2 in RCC patients treated with RTKIs
Project Number: R01 CA224342 Status of Support: Active Source of Support: NIH
Name of PD/PI: Pili, R., Hollenhorst, P.,Haas, N Role: Co-PI
Sponsor Contact: Sudhir B Kondapaka ; kondapas@mail.nih.gov
Primary Place of Performance: University of Pennsylvania
Project Period: 9/1/17-1/31/23 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2023
Effort	0.96 Cal.

Title: ***Safety/feasibility run-in cohort for randomized multi center open label Phase 2 trial of nivolumab + ipilimumab with or without Lipiodol:ethanol embolization for Stage 4 renal cell carcinoma with unresected primary***
Major Goals: To evaluate the safety of embolotherapy in patients with metastatic RCC receiving ICI therapy ; Secondary Objectives: 1.To investigate anti-tumor efficacy of ICI therapy in combination with immunostimulatory tumor embolization as measured by objective response rate ; 2.Characterize change in infiltrating immune cells in peripheral blood, primary and metastatic tumor sites before and after immunostimulatory embolization; 3.Characterize exosomal PD-L1 expression as a biomarker of response or resistance to immunotherapy.
Project Number: P30 CA016520 Status of Support: Active Source of Support: NIH
Name of PD/PI: Robert Vonderheide Role: Pilot Co-PI with Dr. Soulen
Sponsor Contact: Krzysztof Ptak krzysztofptak@ninds.nih.gov
Primary Place of Performance: University of Pennsylvania
Project Period: 12/1/19-11/30/22 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2022
Effort	0.12 Cal.

Other Support

Name of Individual: Naomi B Haas
Commons ID: NAOMHAAS

Title: ***University of Pennsylvania Clinical Trial Site Application for Kidney Cancer Research Consortium Award***
Major Goals: Aim 1: Design innovative clinical trials for the KCRC; Aim 2. Accrue at least 25 patients per year to KCRC trials; Aim 3. Perform translational research on samples obtained from KCRC trials.
Project Number: UT MDACC Status of Support: Active
Source of Support: Department of Army
Name of PD/PI: Haas Role: Site PI
Sponsor Contact: Amie Bunker; amie.d.bunker.civ@mail.mil
Primary Place of Performance: University of Pennsylvania
Project Period: 9/15/20-9/14/24 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2023	2024
Effort	1.8 Cal.	1.8 Cal.

Title: ***Metabolic Reprogramming of the CAR T cell Epigenome***
Major Goals: We will develop next generation therapies with CAR T cells, involving innovative combinations of metabolic as well as epigenetic modifiers of the aforementioned checkpoint switches and genetic technology to be tested in rigorous preclinical models.
Project Number: ACGT Status of Support: Active
Source of Support: Alliance for Cancer Gene Therapy
Name of PD/PI: Joe Fraietta Role: Co-Investigator
Sponsor Contact: Margaret Cianci; mcianci@acgtfoundation.org
Primary Place of Performance: University of Pennsylvania
Project Period: 2/1/20-1/31/23 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2022	2023
Effort	0.84 Cal.	0.84 Cal.

Title: ***Abramson Cancer Center Support Grant***
Major Goals: This grant supports the cancer research effort of the Abramson Cancer Center of the University of Pennsylvania.
Project Number: P30 CA016520 Status of Support: Active
Source of Support: NIH
Name of PD/PI: Robert Vonderheide Role: Co-Leader of Cancer Therapeutics Program
Sponsor Contact: Krzysztof Ptak krzysztofptak@ninds.nih.gov
Primary Place of Performance: University of Pennsylvania
Project Period: 12/1/20-11/30/25 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2023	2024	2025
Effort	1.2 Cal.	1.2 Cal.	1.2 Cal.

Title: ***Emerging Translational Center of Excellence in Prostate Cancer: Prostate Cancer African American Disparities (PCAAD)***
Major Goals: Aim 1. Develop a Biobank of Biospecimens from African American and white patients with Prostate Cancer

Other Support

Name of Individual: Naomi B Haas
Commons ID: NAOMHAAS

Project Number: Prostate TCE Status of Support: Active
Source of Support: Breakthrough Bike Challenge Foundation
Name of PD/PI: Penning; Haas Role: Co-Investigator
Sponsor Contact: Bart Ziemski; bziemski@upenn.edu
Primary Place of Performance: University of Pennsylvania
Project Period: 4/1/21-3/31/23 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2023
Effort	0.01 Cal.

Title: ***Phase 1 Study of PSMA-TGFBRDN CAR Modified T Cells in Patients with Advanced Castrate Resistant Prostate Cancer***
Major Goals: Determine the safety and feasibility of intravenous administration of lentivirally transduced CART-PSMA-TGFβRDN autologous cells with and without cyclophosphamide/fludarabine lymphodepleting chemotherapy in patients with advanced castrate resistant prostate cancer.
Project Number: RTrial 32816 (cohort 4) Status of Support: Active
Source of Support: Internal funding/Gift fund
Name of PD/PI: Carl June
Role: Clinical PI
Sponsor Contact: *Angel McDevitt; amcdevit@pennmedicine.upenn.edu*
Primary Place of Performance: University of Pennsylvania
Project Period: 3/1/22-2/28/24 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2023
Effort	0.6 Cal.

PENDING:

Title: ***Patient-Centered Care Coordination for Advanced Prostate Cancer (P3CaPc) study***
Major Goals:
Project Number: W81XWH-22-PCRP-IDA
Status of Support: Pending
Source of Support: Department of Defense
Name of PD/PI: Ravi Jayadevappa Role: Co-Investigator
Sponsor Contact:
Primary Place of Performance: University of Pennsylvania
Project Period: 2/1/2023-1/31/2026 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2023-2026
Effort	0.6 Cal.

Title: ***Engineering the next generation of 'best-in-class' CAR T cells for metastatic castration-resistant prostate cancer: from bench-to-bedside-to-bench and back to bedside***
Major Goals:
Project Number: 2022 PCF Challenge Award
Status of Support: Pending
Source of Support: Prostate Cancer Foundation
Name of PD/PI: Carl June Role: Co-Investigator
Sponsor Contact: Salera, Bernadette <bsalera@pennmedicine.upenn.edu>

Other Support

Name of Individual: Naomi B Haas
Commons ID: NAOMHAAS

Primary Place of Performance: University of Pennsylvania
Project Period: 1/1/2023-12/31/2024 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2023-2024
Effort	1.2 Cal.

Title: ***Developing Engineered Cell Therapies for Metastatic Castrate Resistant Prostate Cancer to Increase Efficacy and Decrease Toxicity***
Major Goals:
Project Number: 2022 PCF Tactical Grant
Status of Support: Pending
Source of Support: Prostate Cancer Foundation
Name of PD/PI: Carl June Role: Co-Investigator
Sponsor Contact: Mark Patrick, mpatrick@pennmedicine.upenn.edu
Primary Place of Performance: University of Pennsylvania
Project Period: 1/1/2023-12/31/2025 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2023-2024
Effort	0.6 Cal.

IN KIND: None

OVERLAP: None

COMPLETED:

Title: ***Abramson Cancer Center Support Grant***
Major Goals: Provide infrastructure for cancer research
Project Number: P30 CA016520 Status of Support: Completed
Source of Support: NIH
Name of PD/PI: Robert Vonderheide Role: Co-Leader of Cancer Therapeutics Program
Sponsor Contact: Henry P. Ciolino; ciolinoh@mail.nih.gov
Primary Place of Performance: University of Pennsylvania
Project Period: 12/1/10-11/30/20 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2021
Effort	1.2 Cal.

Title: ***A Phase 1/2 Dose-Escalation and Safety Study of ADXS31142 Alone and of ADXS31-142 in Combination with Pembrolizumab (MK-3475) in Patients with Previously Treated Metastatic Castration-Resistant Prostate Cancer***
Major Goals: Tto determine safety (dose-limiting toxicity) and overall response in patients with metastatic castrate resistant prostate cancer. A secondary endpoint is overall survival.
Project Number: ADXS142-03 Status of Support: Completed
Source of Support: Advaxis
Name of PD/PI: Haas Role: PI
Sponsor Contact: Emily Stevenson; emily.stevenson@inventivhealth.com
Primary Place of Performance: University of Pennsylvania
Project Period: 5/11/15-6/30/21 Total Award Amount

Other Support

Name of Individual: Naomi B Haas
Commons ID: NAOMHAAS

Person Months (Calendar/Academic/Summer) per budget period.

Year	2022
Effort	0.12 Cal.

Title: ***R2810-ONC-1423 Study: A First-in-Human Study of Repeat Dosing with REGN2810, A Monoclonal, Fully***
Major Goals: Human Antibody to Programmed Death-1 (PD-1), as Single Therapy and in Combination with other AntiCancer Therapies, in Patients with Advanced Malignancies
Project Number: R2810-ONC-1423 Status of Support: Completed
Source of Support: Regeneron Pharmaceuticals
Name of PD/PI: Haas Role: PI
Sponsor Contact: Collin M Strickland; Collin.Strickland@ppdi.com
Primary Place of Performance: University of Pennsylvania
Project Period: 1/29/16-1/28/19 Total Award Amoun
Person Months (Calendar/Academic/Summer) per budget period.

Year	2019
Effort	0.12 Cal.

Title: ***A Phase 1/2, Open-Label, Uncontrolled, Multiple-Dose Escalation, Cohort Expansion and Extension Study***
Major Goals: To Evaluate The Safety, Tolerability, And Pharmacokinetics Of Asn001 In Subjects With Metastatic Progressive Castrate Resistant Prostate Cancer
Project Number: ASN001-101 Status of Support: Completed
Source of Support: Asana Biosciences
Name of PD/PI: Haas Role: PI
Sponsor Contact: Sponsor contact: Pete Ly; ply@clinipace.com
Primary Place of Performance: University of Pennsylvania
Project Period: 8/5/15-8/4/19 Total Award Amount
Person Months (Calendar/Academic/Summer) per budget period.

Year	2019
Effort	0.12 Cal.

Title: ***A Phase 1/2 Study of the Safety, Pharmacokinetics, and Pharmacodynamics of the Glutaminase Inhibitor CB-839 in Combination with Nivolumab in Patients with Clear Cell Renal Cell Carcinoma and Other Solid Tumors***
Major Goals: To establish dose limiting toxicity of the glutaminase inhibitor CB839 in combination with nivolumab in metastatic clear cell renal cancer. Aim 1 dose limiting toxicity; Aim 2 progression free survival.
Project Number: CX-839-004 Status of Support: Completed
Source of Support: Calithera Biosciences
Name of PD/PI: Haas Role: PI
Sponsor Contact: Susan David, MD Senior Director, Pharmacovigilance, Calithera Biosciences,Inc.
Primary Place of Performance: University of Pennsylvania
Project Period: 10/12/17-10/11/19 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2019
Effort	0.12 Cal.

Other Support

Name of Individual: Naomi B Haas
Commons ID: NAOMHAAS

Title: ***A randomized, double-blind, placebo-controlled phase III study to evaluate the efficacy and safety of pazopanib as adjuvant therapy for subjects with localized or locally advanced RCC following nephrectomy.***
Major Goals: To measure overall survival and disease free survival in patients with completely resected high risk clear cell renal cancer receiving pazopanib or placebo.
Project Number: VEG113387 Status of Support: Completed
Source of Support: Novartis Pharmaceuticals Corporation
Name of PD/PI: Haas Role: PI
Sponsor Contact: Tamika Jones Tamika.jones-morris@novartis.com; Roxanne Smallwood roxanne.smallwood@novartis.com
Primary Place of Performance: University of Pennsylvania
Project Period: 3/14/11-5/13/20 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2020
Effort	0.12 Cal.

Title: ***(UPCC 07811): Autophagy inhibition to augment mTOR inhibition: A phase I/II trial of RAD001 and hydroxychloroquine in patients with previously treated renal cell carcinoma***
Major Goals: To determine safety and efficacy using response rate and progression free survival of an autophagy inhibitor in combination with a mammalian target of rapamycin inhibitor in patients with metastatic clear cell renal cancer.
Project Number: CRAD001LUS174T Status of Support: Completed
Source of Support: Novartis Pharmaceuticals Corporation
Name of PD/PI: Haas Role: PI
Sponsor Contact: Gregory Mantalbano; Gregory.mantalbano@novartis.com
Primary Place of Performance: University of Pennsylvania
Project Period: 12/1/11-6/30/21 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2021
Effort	0.36 Cal.

Title: ***The Metabolic Pathogenesis of Chromophobe Renal Cell Carcinoma***
Major Goals: To predict the aggressiveness of chromophobe renal cancers. Aim 1. To determine the role of impairment of the glutathione salvage pathway in the pathogenesis and therapy of ChRCC. Aim 2. To determine the therapeutic impact of targeting glutathione biosynthetic pathways in ChRCC in vitro and in vivo. Aim 3. To identify molecular and metabolic determinants of the metastatic potential of ChRCC.
Project Number: R01 CA216922 Status of Support: Completed
Source of Support: NIH
Name of PD/PI: Haas; Henske Role: Co-PI
Sponsor Contact: Michael G. Espey; SP@NIH.GOV
Primary Place of Performance: University of Pennsylvania
Project Period: 1/15/18-12/31/19 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2020
Effort	0.36 Cal.

Other Support

Name of Individual: Naomi B Haas
Commons ID: NAOMHAAS

Title: ***A Phase 1/2 Trial of X4P-001 as Single Agent and in Combination with Axitinib in Patients with Advanced Renal Cell Carcinoma***
Major Goals: To determine overall response rate and progression free survival survival in patients with metastatic clear cell renal cancer receiving X4P-001 in combination with axitinib. Co-primary endpoint is safety. Aim 1: progression free survival; Aim2: overall response rate; Aim3: dose limiting toxicities.
Project Number: X4P-001-RCCA Status of Support: Completed
Source of Support: X4 Pharmaceuticals, Inc
Name of PD/PI: Haas Role: PI
Sponsor Contact: MBarrick@medsource.com Michelle Barrick, Clinical Research Associate; Lu Gan MD, PhD, Medical Director lu.gan@x4pharma.com
Primary Place of Performance: University of Pennsylvania
Project Period: 7/24/17-8/30/22 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2022
Effort	0.12 Cal.

Title: ***Planning grant for CARISMA – Cancer therapy risk-reduction with intensive systolic BP management***
Major Goals: To perform a Phase III randomized clinical trial to test the hypothesis that intensive systolic blood pressure lowering to a targeted of <120 mmHg, as compared to Usual Care, is well-tolerated and beneficial in cancer patients receiving AA-TKIs. It will provide the necessary and sufficient data to determine if an intensive blood pressure control strategy is well-tolerated and efficacious in patients receiving anti-angiogenic tyrosine kinese inhibitors.
Project Number: R34HL146927 Status of Support: Completed
Source of Support: NIH
Name of PD/PI: KY; Margulies Role: Co-Investigator
Sponsor Contact: Patrice Desvigne-Nickens; desvignp@nhlbi.nih.gov
Primary Place of Performance: University of Pennsylvania
Project Period: 8/1/19-7/31/22 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2022
Effort	0.12 Cal.

Title: ***Exploiting Cholesterol Metabolism to Treat Primary and Metastatic Renal Carcinoma***
Major Goals: Specific Aims: 1A) Evaluation of SCARB1 effects on orthotopic and metastatic ccRCC.; 1B) Translating SCARB1 inhibition into future ccRCC treatments; 1C) Defining the mechanistic basis of SCARB1 effects on ccRCC cell growth. 2A) Evaluation of HSD3B7 effects on orthotopic and metastatic ccRCC. 2B) Defining the mechanistic basis of HSD3B7 inhibition-mediated ccRCC cell death.
Project Number: KC190080 Status of Support: Completed
Source of Support: Department of Defense
Name of PD/PI: Celeste Simon Role: Co-Investigator
Sponsor Contact: Joshua D. McKean; joshua.d.mckean3.civ@mail.mil
Primary Place of Performance: University of Pennsylvania
Project Period: 9/30/20-9/29/22 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2022
Effort	0.36 Cal.

Other Support

Name of Individual: Naomi B Haas
Commons ID: NAOMHAAS

Title: ***Development and Testing of Circulating-Free Methylation DNA as a Prognostic Biomarker for Recurrent Kidney Cancer***
Major Goals: Aim 1: To evaluate the relationship between cfmeDNA and recurrence in patients with early-stage RCC treated with placebo. Aim 2: To evaluate the relationship between cfmeDNA and recurrence in patients with early-stage RCC treated with pazopanib.
Project Number: KCRP Status of Support: Completed
Source of Support: Department of Defense
Name of PD/PI: Toni Choueiri Role: Co-Investigator
Sponsor Contact: Karen Eaton; karen.m.eaton.ctr@mail.mil
Primary Place of Performance: University of Pennsylvania
Project Period: 9/31/2019-9/30/22 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2022
Effort	0.6 Cal.

Current and Pending Support

Investigator: JOSEPH A FRAIETTA

Current Support

Project Title: University of Pennsylvania Clinical Trial Site Application for Kidney Cancer Research Consortium Award
Time Commitment: 0.36
Supporting Agency: Department of Army
Sponsor Award Number: UT MDACC
Agency Contact: Amie Bunker; amie.d.bunker.civ@mail.mil
Performance Period: 9/15/20-9/14/24
Level of Funding:
Project Goals: Aim 1: Design innovative clinical trials for the KCRC; Aim 2. Accrue at least 25 patients per year to KCRC trials; Aim 3. Perform translational research on samples obtained from KCRC trials.
Overlap: None

Project Title: Determining On-target, Off-site Toxicity of Anti-Tn-MUC1 CAR T cells
Time Commitment: 0.01
Supporting Agency: TMUNITY THERAPEUTICS, INC
Sponsor Award Number: Tmunity SRA 11
Agency Contact: Sujay Kango, https://www.tmunity.com/management
Performance Period: 11/1/18 – 12/8/22
Level of Funding:
Project Goals: In this project, we will test whether Tn-MUC1-targeted CAR T cells are active against a panel of normal cells. Following detection of Tn-Muc1 protein expression in primary cells derived from various normal tissues, anti-Tn-Muc1 CAR T cells will be co-cultured with these tissue-derived cells to determine potential on-target, off-site toxicity.
Overlap: None

Project Title: Chimeric Antigen Receptor T Cell Therapy for Pancreatic Cancer
Time Commitment: 0.01
Supporting Agency: STAND UP TO CANCER
Sponsor Award Number: SU2C #RT6162
Agency Contact: Alice Lustig, alustig@su2c.org
Performance Period: 02/01/2019 - 11/30/2022
Level of Funding:
Project Goals: The overarching scientific theme of our Project is to molecularly define the pathways that promote durability of human CAR T cell function and/or checkpoint blockade effects using state of the art profiling technologies and an array

of relevant models to probe factors that enable CAR T cells to maintain high levels of activity for prolonged periods of time.
Overlap: None

Project Title: Linking insertional mutagenesis and cell function to improve CAR T cell therapy
Time Commitment: 0.96
Supporting Agency: NATIONAL CANCER INSTITUTE/NIH/DHHS (NATIONAL INSTITUTES OF HEALTH)
Sponsor Award Number: 1-R01-CA-241762-01
Agency Contact: Lori Henderson, hendersonlori@mail.nih.gov
Performance Period: 06/01/2019 - 04/30/2024
Level of Funding:
Project Goals: This project will analyze chimeric antigen receptor (CAR)-modified T cells from patient cohorts to identify the lentiviral vector genomic integration sites associated with optimal in vivo CAR T cell proliferation, persistence and function, and characterize genetic loci that might be directly targeted to enhance CAR T cell therapeutic efficacy.
Overlap: None

Project Title: Metabolic Reprogramming of the CAR-T Cell Epigenome
Time Commitment: 1.2
Supporting Agency: ALLIANCE FOR CANCER GENE THERAPY
Sponsor Award Number: N/A
Agency Contact: Main Site; info@acgtfoundation.org
Performance Period: 09/01/2019 - 01/21/2023
Level of Funding:
Project Goals: This study will establish a firm mechanistic link between changes in metabolic input to the adaption of the CAR T cell epigenome. Identification of the molecular switches modulated by metabolic cues that can turn epigenetic checkpoints on and off will provide new CAR T cell augmentation strategies, which can be rapidly translated into clinical trials.
Overlap: None

Project Title: Engineering the next generation of T cells
Time Commitment: 1.2
Supporting Agency: NCI/NIH/DHHS (NATIONAL INSTITUTES OF HEALTH)
Sponsor Award Number: 1-U54-CA-244711-01
Agency Contact: SONG, MIN-KYUNG H, songm@mail.nih.gov
Performance Period: 09/25/2019 - 08/31/2024
Level of Funding:
Project Goals: The purpose of this U54 is to employ immuno-engineering principles to design more durable, accessible, and less toxic immunoprevention and immunotherapy strategies. The focus of our U54 entitled “Engineering the next

generation of T cells" is on developing next-generation gene-editing or modification of immune cells to improve persistence in vivo, control and manipulate the immune system to reduce off-target toxicities and enhance anti-tumor effectiveness of adoptive cell therapy.
Overlap: None

Project Title: Unraveling Mechanisms of Resistance to Checkpoint Inhibition in Canine Urothelial Carcinoma
Time Commitment: 0.60
Supporting Agency: V FOUNDATION FOR CANCER RESEARCH
Sponsor Award Number: DC2019-042
Agency Contact: Shane Jacobson, Chief Executive Officer
Performance Period: 11/01/2019 - 11/01/2022
Level of Funding:
Project Goals: In this project, we will leverage the unique collaborative expertise of investigators in cancer genetics and precision medicine, antibody phage display, translational immunotherapeutics and canine immunotherapy clinical trials at the University of Pennsylvania's Schools of Veterinary Medicine and Medicine. Collectively, we aim to further our understanding of the mutational load of canine urothelial carcinoma and identify correlative biomarkers that predict response and resistance to combination checkpoint inhibition.
Overlap: None

Project Title: The role of microenvironment mechanics in sarcoma immune evasion
Time Commitment: 0.96
Supporting Agency: DEPARTMENT OF THE ARMY
Sponsor Award Number: W81XWH2110757
Agency Contact: https://www.grants.gov/web/grants/support/program-management-office.html
Performance Period: 08/01/2021 - 07/31/2024
Level of Funding:
Project Goals: Our objective is to understand the role of Collagen VI in immune evasion towards the development of novel approaches that improve the therapeutic efficacy of checkpoint blockade. Importantly, this work will provide a methodological and conceptual foundation to understand the role of matrix proteins in CD8+ T cell function in solid tumors. We anticipate that translation of our findings to the sarcoma clinic could take five years or less.
Overlap: None

Project Title: Developing CAR T Cell Therapies for Thoracic Malignancies
Time Commitment: 1.2
Supporting Agency: NIH
Sponsor Award Number: P01CA217805
Agency Contact: Henderson, Lori A, hendersonlori@mail.nih.gov

Performance Period: 09/2018 - 08/2023
Level of Funding:
Project Goals: Develop CAR T cells to treat thoracic cancers such as lung cancer and malignant mesothelioma.
Overlap: None

Project Title: Adrenergic modulation of cellular immune functions in CAR T cell-induced cytokine release syndrome
Time Commitment: 0.6
Supporting Agency: NIH
Sponsor Award Number: U01CA247576-03
Agency Contact: MCCARTHY, SUSAN A, mccarths@mail.nih.gov
Performance Period: 01/2020 - 12/2024
Level of Funding:
Project Goals: To determine how catecholamines modulate macrophage function and cytokine release induced by CART cells in mice and human
Overlap: None

Project Title: Enhancing Chimeric Antigen Receptor T Cell Therapies for Hematologic Malignancies: Beyond CART 19
Time Commitment: 1.8
Supporting Agency: NIH
Sponsor Award Number: P01CA214278-05
Agency Contact: SONG, MIN-KYUNG H, songm@mail.nih.gov
Performance Period: 08/2017 – 07/2023
Level of Funding:
Project Goals: Our goal is to develop next generation immunotherapy for hematologic malignancies which strike more than 200,000 people every year in the United States. Our approach involves the development of next generation therapies with chimeric antigen receptor (CAR) T cells, involving innovative combinations of CAR T Cells and generic editing with CRISPR/Cas9 technology to be tested in four clinical trials
Overlap: None

Project Title: Pan-heme" CAR Anti-CD38 CAR T cells for myeloid, lymphoid and plasma cell malignancies
Time Commitment: 0.6
Supporting Agency: The Leukemia & Lymphoma Society, Inc
Sponsor Award Number: 7022-20
Agency Contact: researchprograms@lls.org
Performance Period: 10/2019 - 09/2024
Level of Funding:
Project Goals: This SCOR has integrated translational projects with a focus on CD38, a validated target in hematologic malignancies. The overarching design of this SCOR is

inherently synergistic: Biological tools and financial resources will be pooled to develop a single, effective approach to treat 3 different hematologic malignancies across a spectrum of age ranges
Overlap: None

Project Title: Abramson Cancer Center Support Grant
Role: **TCSL Core Director**
Time Commitment: 0.36
Supporting Agency: NIH
Sponsor Award Number: P30-CA016520
Agency Contact: Ptak, Krzysztof, krzysztofptak@ninds.nih.gov
Performance Period: 12/2020- 11/2025
Level of Funding:
Project Goals: This grant supports the operations, goals, and missions of the Abramson Cancer Center
Overlap: None

Project Title: Abramson Cancer Center Support Grant
Role: **Investigator**
Time Commitment: 0.48
Supporting Agency: NIH
Sponsor Award Number: 2-P30-CA-016520-45
Agency Contact: Ptak, Krzysztof, krzysztofptak@ninds.nih.gov
Performance Period: 01/2021 - 11/2025
Level of Funding:
Project Goals: This grant supports the operations, goals, and missions of the Abramson Cancer Center
Overlap: None

Project Title: Overcoming CAR T cell Resistance using Next-generation Immuno-engineering
Time Commitment: 0.1
Supporting Agency: Tmunity Therapeutics, Inc.
Sponsor Award Number: SRA 16
Agency Contact: Sujay Kango, https://www.tmunity.com/management
Performance Period: 4/1/19 – 12/8/22
Level of Funding:
Project Goals: Our goal is to employ genetic and cellular engineering principles to design more potent CAR T cells resistant to intrinsic and extrinsic dysfunction. This project is expected to open therapeutic horizons in the field of adoptive immunotherapy and offer new research prospects that could be translated to improving treatment of many different cancers.
Overlap: None

Project Title: Tmunity Therapeutics, Inc. SRA 20
Time Commitment: 0.01
Supporting Agency: Tmunity Therapeutics, Inc.
Sponsor Award Number: SRA 20
Agency Contact: Sujay Kango, https://www.tmunity.com/management
Performance Period: 2/5/21 – 8/31/23
Level of Funding:
Project Goals: This project will establish a comprehensive strategy to target the major limitations in CAR T cell therapy, increasing the feasibility of this already transformational approach. In this vein, we will use an innovative genetic knock-in approach to express multiple CARs (i.e., a "CAR fleet") and other payloads (dnTGFβRII, PD-1/CD28 switch receptor) in T cells, while simultaneously disrupting negative regulators of proliferation, anti-tumor function or genes crucial for allogeneic rejection.
Overlap: None

Pending Support

Project Title: Determinants of CD8+ T-cell Aging and Reduced Function in B cell Cancer
Time Commitment: 0.12
Supporting Agency: SAMUEL WAXMAN CANCER RESEARCH FOUNDATION
Sponsor Award Number: N/A
Agency Contact: William Stillman, wsullivan@waxmancancer.org
Performance Period: 01/01/2022 - 12/31/2022
Level of Funding:
Project Goals: This project aims to explore how late-in-life B cell cancers affect $CD8^+$ T-cell aging and whether modulating these epigenomic pathways augments CAR T-cell mediated anti-tumor activity. Understanding this mechanism is vital for developing effective CAR T-cell therapy in those common B cell cancers in the older population.
Overlap: none

Project Title: Mutation-based clonal evolution and aging of T cells and CAR T cells in late-in-life B cell cancers
Time Commitment: 1.2
Supporting Agency: SAMUEL WAXMAN CANCER RESEARCH FOUNDATION
Sponsor Award Number: N/A
Agency Contact: William Stillman, wsullivan@waxmancancer.org
Performance Period: 10/01/2022 - 09/30/2024
Level of Funding:
Project Goals: We propose to use new single-cell profiling technology that identifies mutations associated with CAR T cell aging to identify mutated genes and their modulation of

cell growth, providing a better understanding of the precise molecular defects and routes to improving CAR T cell therapy in the aging patients
Overlap: none

Project Title: The Role of the ECM in Sarcoma Immune Evasion
Time Commitment: 0.6
Supporting Agency: DUKE UNIVERSITY (NATIONAL INSTITUTES OF HEALTH)
Sponsor Award Number: N/A
Agency Contact: https://finance.duke.edu/research/pre-award
Performance Period: 12/01/2022 - 11/30/2027
Level of Funding:
Project Goals: The central hypothesis of this proposal is that components of the tumor microenvironment directly affects tumor cell dissemination, and that metastatic sarcoma cells exhibit changes in ECM that promote colonization of the lungs. The objective of this research proposal is to elucidate the underlying mechanisms of sarcoma metastasis. The long-term goal of these studies will be to identify novel therapeutic targets, which will facilitate new treatments for sarcoma and provide important clues about the sarcoma microenvironment and mechanisms that promote and support metastasis to the lung.
Overlap:

Project Title: Developing Engineered Cell Therapies for Metastatic Castrate Resistant Prostate Cancer to Increase Efficacy and Decrease Toxicity
Time Commitment: 2.4
Supporting Agency: PROSTATE CANCER FOUNDATION
Sponsor Award Number: N/A
Agency Contact:
Performance Period: 01/01/2023 - 12/31/2025
Level of Funding:
Project Goals: The long-term goals of this Consortium are to develop next generation immunotherapies with engineered T Cells and to translate the research into new therapies with curative potential for patients with metastatic castrate-resistant prostate cancer
Overlap: none

Project Title: Translating Data into Insights and Digital Products
Time Commitment: 3.0 ca months
Supporting Agency: DANAHER INNOVATION CENTER, LLC
Sponsor Award Number: N/A
Agency Contact: Jennifer Moody Jennifer.moody@Danaher.com
Performance Period: 01/01/2023 - 12/31/2024
Level of Funding:
Project Goals: We will focus on performing correlative analyses and developing data science pipelines to inform precision CAR T cell therapies, combining the power of

biomarker-based patient matching with the immense potential of CAR T cells to create novel, safe and curative therapies. The goal will be to develop algorithms that can prospectively identify those patients whose disease is likely to respond to novel therapies. We will do this via analysis of existing data sets and newly generated data sets from archived samples.
Overlap:

Project Title: Engineering the next generation of 'best-in-class' CAR T cells for metastatic castration-resistant prostate cancer: from bench-to-bedside-to-bench and back to bedside
Time Commitment: 1.2 ca months
Supporting Agency: PROSTATE CANCER FOUNDATION
Sponsor Award Number: N/A
Agency Contact: info@pcf.org / Main 310.570.4700
Performance Period: 01/01/2023 - 12/31/2024
Level of Funding:
Project Goals: The goal here is to employ gene editing and cellular engineering principles to design the next generation of 'best-in-class' CAR T cells resistant to both T cell-intrinsic and -extrinsic dysfunction. Using a structured, multi-pronged strategy, we will ameliorate resistance to CAR T cell-based therapies of mCRPC and clinically advance several next-generation synthetic biology tools.
Overlap:

Project Title: Decoding the role of tumor associated macrophages in pediatric sarcomas
Time Commitment: 0.6
Supporting Agency: CHILDREN'S HOSPITAL OF PHILADELPHIA (NIH)
Sponsor Award Number: N/A
Agency Contact: Tan, Kai <TANK1@chop.edu>
Performance Period: 07/01/2023 - 06/30/2028
Level of Funding:
Project Goals: We hypothesize that by comparing single-cell transcriptomic, epigenomics, and spatial proteomic data across sarcoma subtypes, we can identify shared and subtype-specific immunosuppressive TAMs and signaling pathways.
Overlap:

Project Title: Engineering a New Generation of Renewable Smart CAR T cells for Universal Cancer Immunotherapy
Time Commitment: 3.0
Supporting Agency: OFFICE OF THE DIRECTOR, NIH/DHHS
Sponsor Award Number: N/A
Agency Contact: LABOSKY, PATRICIA - laboskypa@mail.nih.gov
Performance Period: 09/01/2023 - 08/31/2028
Level of Funding:

Project Goals: Armed with multi-functional genetic constructs and improved cellular programming strategies previously unavailable in the T cell therapy toolbox, we will elucidate essential regulators of CAR T cell fate and function from the earliest stages of T cell differentiation and answer long-standing questions about the nature of iPSC-derived CAR T cells. These studies will thus guide the generation of universal precision cellular immunotherapy for future clinical trials and establish a new paradigm of cancer treatment. This strategy also has far-reaching implications for the treatment of autoimmunity, chronic infection, and many other diseases.
Overlap:

Project Title: Enhancing Chimeric Antigen Receptor T Cell Therapies for Hematologic Malignancies: Beyond CART 19
Time Commitment: 2.76 CM
Supporting Agency: NIH
Sponsor Award Number: 2 P01 CA214278-06
Agency Contact: Shane Woodward, Woodwars@mail.nih.gov
Performance Period: 07/01/23-6/30/28
Level of Funding:
Project Goals: The central hypothesis is that by combining two orthogonal technologies – CAR T cells and human genome editing with CRISPR/Cas9 – to overcome the limitations and vulnerabilities of each individual technology. Designing CART cells that are more efficacious, safer and more widely available than earlier generations. Long-term-goals are to produce “universal CAR T” from a variety of input cell sources, addressing a critical barrier to the field.
Overlap

Previous Support

Project Title: Autologous T cells transduced with a lentiviral vector to express NY-ESO-1 and electroporated with CRISPR guide RNA to disrupt expression of endogenous TCRa, TCRB, and PD-1
Time Commitment: 0.0
Supporting Agency: PARKER INSTITUTE FOR CANCER IMMUNOTHERAPY
Sponsor Award Number: UPCC 25416
Agency Contact: Janine Pixley, grants@parkerici.org
Performance Period: 02/01/2018 - 03/31/2021
Level of Funding:
Project Goals: The primary goals of the study are to determine the safety of NYCE T cells in relapsed and/or refractory MM, sarcoma, and melanoma patients.
Overlap:

Project Title: Autologous T cells transduced with a lentiviral vector to express NY-ESO-1 and electroporated with CRISPR guide RNA to disrupt expression of endogenous TCRa, TCRß, and PD-1 (UPCC# 25416)

Time Commitment: 0.0
Supporting Agency: TMUNITY THERAPEUTICS, INC
Sponsor Award Number: Tmunity Therapeutics, Inc.
Agency Contact: Rachael Caldwell, Rachael.Caldwell@tmunity.com
Performance Period: 02/01/2018 - 03/31/2021
Level of Funding:
Project Goals: The primary goals of the study are to determine the safety of NYCE T cells in relapsed and/or refractory MM, sarcoma, and melanoma patients
Overlap:

Project Title: Inhibition of BET Bromodomain Proteins Reverses Chimeric Antigen Receptor (CAR) Silencing and Reinvigorates Hypofunctional T Cells
Time Commitment: 0.01
Supporting Agency: Levis Family Leukemia Research Award
Sponsor Award Number: Levis Family Leukemia Research Award
Agency Contact: N/A
Performance Period: 10/1/18 – 9/30/22
Level of Funding:
Project Goals: The goal of this study is to reverse silencing of CARs by pharmacologically targeting BET bromodomain “readers” of histone acetylation marks. In addition, we will assess the impact of BET bromodomain protein antagonists on the function of gene-modified T cells used for adoptive cell therapy.
Overlap: None

Project Title: Overcoming Resistance of Acute Lymphoblastic Leukemia to Chimeric Antigen Receptor (CAR) T Cell Therapy
Time Commitment: 0.24
Supporting Agency: GABRIELLE'S ANGEL FOUNDATION
Sponsor Award Number: N/A
Agency Contact: Jennifer Ranieri, Executive Director
Performance Period: 07/01/2018 - 06/30/2020
Level of Funding:
Project Goals: This research focuses on the development of a novel multi-pronged approach to overcome resistance of ALL to CAR T cell therapy using next-generation genome editing tools to endow T cells with CARs directed against multiple target antigens, while simultaneously disrupting negative epigenetic regulators of CAR T cell proliferative capacity and anti-tumor activity.
Overlap: None

Project Title: Multiplexed CRISPR editing of T cells through large cargo delivery via mechanoporation
Time Commitment: 0.12
Supporting Agency: GEORGIA INSTITUTE OF TECHNOLOGY (NSF)
Sponsor Award Number: AWD-102507-G1

Agency Contact: Todd Sulchek, todd.sulchek@me.gatech.edu
Performance Period: 02/01/2020 - 07/31/2021
Level of Funding:
Project Goals: The goal of this research project is to test a microfluidic cell transfection technology with the potential to permit multiple CRISPR edits with high transfection efficiency and viability.
Overlap: None

Lal, Priti

Current

Title: Multi-omic Biomarker Discovery and Validation in Heart Transplant Patient Populations (R01AI144522-01A1 Keating)
Time Commitments: 1.08 CM
Supporting Agency: NIH/NIAID
Address:
5601 Fishers Ln, Rockville,
MD 20852
Contracting/Grants Officer: ROBIEN, MARK ANDREW
Performance Period: 3/1/20-2/28/25
Level of funding:
Project Goals: The overarching aim is to use multi-omics profiling, which spans genomics, transcriptomics, proteomics and metabolomics profiling of biospecimens collected at prospective timepoints from cardiac patient's post-transplantation, for discovery and validation of prognostic and diagnostic biomarkers of post-transplantation complications
Specific Aims: We aim to diagnose and prognosticate acute allograft rejection and to assess the impact of biomarkers of post-transplantation complications including acute rejection, from the various omics across using 'integrative personal omic profiling' (iPOP) developed by investigators in our team. We outline a transformation advance in the molecular diagnoses of acute cardiac allograft rejection within the formalin-fixed paraffin embedded (FFPE) heart allograft biopsy samples, which may change the current standard-of-care which uses conventional histopathology grading alone. We will also assess how genetic polymorphisms impact other omic profiles in the same-, and in subsequent-, timepoints from the same individuals through to post-transplantation complex phenotypes such as acute rejection. We aim to investigate how genetic variants in the HLA and minor histocompatibility (mHA) regions impact clinically relevant post-transplantation outcomes including acute rejection and patient survival.
Overlap: No scientific or budgetary overlap with the proposed PRMRP proposal

Title: Role of MED1 in the AR-dependent transcription in advanced prostate cancer (R01CA249210 Asangani)
Time Commitments: 0.6 CM
Supporting Agency: NIH/NCI
Address:
9000 Rockville Pike
Bethesda, MD 20892
Contracting/Grants Officer: FINGERMAN, IAN M
Performance Period: 4/1/20-3/31/25
Level of funding:
Project Goals: The goal of this project is to explore the role of CDK7 mediated phosphorylation of MED1 in the formation and stability of MED1-AR complex and AR signaling in advanced prostate cancer.
Specific Aims: The three specific aims of the projects are: Specific Aim 1: Investigate the role of p-MED1 in hyper-activation of AR-signaling Specific Aim 2: Investigate the mechanism of increased p-MED1 in enzalutamide refractory PCa. Specific Aim 3: Establish the efficacy of CDK7 inhibitor in clinically relevant naïve and refractory CRPC models in vivo.
Overlap: No scientific or budgetary overlap with the proposed PRMRP proposal

Title: Race Specific 3D Computational Pathology Biomarkers for Predicting Prostate Cancer Specific Recurrence (Madabhushi)
Time Commitments: 0.12 CM
Supporting Agency: DOD
Address:
1120 Fort Detrick
Frederick, MD, 21702
Contracting/Grants Officer: Mirlene Andou
Performance Period: 1/1/20-12/31/22
Level of funding:
Project Goals: In this Prostate Cancer Health Disparity grant we seek to develop a computational risk-assessment tool

(PRISM3D) based off computer extracted features from surgical specimens which are scanned by the novel 3D OTLS technology. The objectives of this project are two-fold. Firstly, to combine the power of OTLS and 3d computational pathology to discern morphologic differences between the PCa phenotype in AA and CA men with PCa. Secondly to use these features to develop the PRISM3D computational assay in order to separately predict outcome (biochemical recurrence and metastasis) in AA and CA men. PRISM3D will explicitly learn and account for biological and morphological differences in the PCa phenotype between AA and CA men via the 3D digitized tissue volumes rendered via the tissue non-destructive OTLS technology. This project is aligned with the FY19 PCRP overarching challenge to reduce lethal prostate cancer in African Americans, as PRISM3D would enable (1) early and accurate identification of AA men with PCa who would be candidates for adjuvant therapy following surgery while also (2) identifying AA men with lower risk PCa who could avoid adjuvant therapy
Specific Aims: We propose to develop and validate the Prostate Cancer Race-specific Image Score using CoMputational 3D pathology (PRISM3D) prognostic assay. The goal of PRISM3D, evaluated on digitized radical prostatectomy specimens, will be to predict PCa outcome following surgical resection. Study aims are as follows.
Overlap: No scientific or budgetary overlap with the proposed PRMRP proposal

Title: University of Pennsylvania Clinical Trial Site Application for Kidney Cancer
Research Consortium Award (Haas)
Time Commitments: 0.36 CM
Supporting Agency: DOD
Address:
1120 Fort Detrick
Frederick, MD, 21702
Contracting/Grants Officer: Amie Bunker; amie.d.bunker.civ@mail.mil
Performance Period: 9/15/20-9/14/24
Level of funding:
Project Goals: Review and subtype Renal cell carcinoma accrued in this clinical trial
Specific Aims: Aim 1: Design innovative clinical trials for the KCRC
Aim 2. Accrue at least 25 patients per year to KCRC trials
Aim 3. Perform translational research on samples obtained from KCRC trials
Overlap: No scientific or budgetary overlap with the proposed PRMRP proposal

Title: Computer-Assisted Histologic Evaluation of Cardiac Allograft Rejection (1R01HL151277 Margulies)
Time Commitments: 0.24CM
Supporting Agency: NIH/NHLBI
Address:
31 Center Drive
Bethesda, MD 20892
Contracting/Grants Officer: LUO**,** JAMES
Performance Period: 9/1/20-8/31/24
Level of funding:
Project Goals: Though cardiac transplantation is a lifesaving intervention, cardiac allograft rejection (CAR) remains a relatively common and serious complication that confers an increased risk of acute graft failure and adverse patient outcomes. For three decades, endomyocardial biopsy (EMB) with histological grading, as recommended by the International Society of Heart and Lung Transplantation (ISHLT) has been the broadly applied standard for CAR diagnosis. However, it is widely appreciated that the ISHLT rejection grading standard lacks diagnostic accuracy and has limited ability to discern the mechanism of rejection. These limitations expose patients to risks of both over-treatment and under-treatment, and highlight the unmet need for more accurate and informative approaches to histopathologic analysis of EMB samples. Our team is a leader in computational pathology image analysis with over 200 papers and >30 issued patents in this area. We have already developed and evaluated a computer assisted histopathology grading evaluation (CACHE) scheme which (1) in N=205 patients, had an area under the receiver operating characteristic curve (AUC)=0.95 compared to two cardiac pathologists (mean AUC=0.74) in distinguishing normal from failing hearts and (2) could distinguish low and high ISHLT rejection grades in N=1109 patients with a performance that exceeds that of trained cardiac pathologists. Recognizing the frequent discordance between ISHLT rejection grade and the clinical trajectory of a rejection event, we will further develop and optimize CACHE to identify new “grade agnostic” morphologic biomarkers of clinically serious CAR. Our scientific premise is that morphologic biomarkers prioritized based on their correlation to patients’ clinical trajectories and underlying immunological disease mechanisms will generate an accurate, consistent and

informative classifier for diagnosing allograft rejection. In service of this hypothesis, the proposed research will address three specific aims.
Specific Aims: Aim 1, we will utilize computational image analysis to discover the morphologic biomarkers of rejection-related injury which are needed to develop a classifier capable of assessing the clinical trajectory of CAR. In Aim 2, we will provide mechanistic annotation of biomarkers identified in Aim 1 through correlation with in-situ immunologic markers using custom multi-parameter immunofluorescence panels. In Aim 3, we employ a multicenter, prospective cohort to validate the diagnostic and mechanistic accuracy of the new rejection classifier developed in Aims 1 and 2. Ultimately, development of a more accurate and mechanistically informative tool for morphologic diagnosis of CAR will improve patient outcomes by reducing over- and under- treatment and inspire applications in other organ transplants. Interestingly, development of a superior histologic diagnostic tool will empower development of alternative, biopsy-free diagnostic approaches that have been handicapped by the necessity of comparison with the flawed ISHLT rejection grade as a reference standard.
Overlap: No scientific or budgetary overlap with the proposed PRMRP proposal

Title: Organization of Whole Mount Prostate Cancer Cohort from African American and European American men at Thomas Jefferson University
Time Commitments: 0 CM (funds for personnel and supplies only)
Supporting Agency: Thomas Jefferson University
Address:
233 South lOth Street
Bluemle Life Sciences Building, Suite 550
Philadelphia, PA 19107
Contracting/Grants Officer: Trena Diggs
Performance Period: 7/1/21-3/31/23
Level of funding:
Project Goals: The work will be performed under the previously negotiated MTA and IRB by Dr Lal at the University of Pennsylvania and Dr. Kevin Kelly at the Thomas Jefferson University. We aim to identify and study 300 stage matched prostate cancer cases representing 150 AA and 150 EA cases. The following is the design of this undertaking. 1) Retrieval of paraffin blocks, and development of H&E slides. 2) Review of all H&E slides from the 300 cases of whole mount prostatectomy specimens and assignment of contemporary Grade Groups and Gleason Grading. 3) Selection of one slide per case that is most representative of Grade group and stage. 4) Scanning of H&E using aperio platform, 5) Review of TME including: a) TILs in context of the peritumoral and intra- tumoral location and b) Documentation of subtypes of Gleason pattern 4, intraductal and ductal carcinoma and their association with TLSs.
Specific Aims: A detailed morphologic and immunologic evaluation of prostate cancer in men of African Descent versus Men of European Descent with the specific aim to identify differences in tumor microenvironment
Overlap: No scientific or budgetary overlap with the proposed PRMRP proposal

Project Title: Prognostic and Predictive morphometric risk score for aggressive prostate cancer (Madabhushi)
Time Commitment: 1.2 CM
Supporting Agency: NIH/NCI
Sponsor Award Number: R01CA268287
Agency Contact: MCKEE, TAWNYA C
Address:
9000 Rockville Pike
Bethesda, MD 20892
Performance Period: 7/1/22-7/30/27
Level of Funding:
Project Goals: Using AI algorithms, we will analyze images from routinely performed H&E sections to predict outcomes of prostate cancer.
Specific Aims: In this R01, we will validate IRiS as (1) prognostic of BCR and risk of metastasis as well as (2) predictive of the added benefit of additional chemotherapy following definitive therapy (surgery or radiation) in PCa. In a recent paper in Clin Cancer Res, we identified IRiS specific prognostic features for African American (AA) men with PCa. We will build on these findings to develop population specific IRiS models for PCa. We will also further optimize IRiS by including (1) features of stromal and cribriform morphology, (2) develop population specific IRiS models for different ethnic groups, and (3) complement IRiS with clinico-pathological features.
Overlap: No scientific or budgetary overlap with the proposed PRMRP proposal

Pending

Project Title: Protein kinase C signaling in prostate cancer health disparities
Time Commitment: 0.60 CM
Supporting Agency: NATIONAL CANCER INSTITUTE/NIH/DHHS
Sponsor Award Number: 1 R01 CA276082-01
Agency Contact: Gril, BRUNILDE M
Address: 9000 Rockville Pike
Bethesda, MD 20892**Performance Period:** 12/01/2022 - 11/30/2027
Level of Funding:
Project Goals: In this proposal we will investigate the involvement of protein kinase C alpha in prostate tumorigenesis, and whether signaling mediated by this kinase has a role in prostate cancer racial disparities.
Specific Aims: Specific Aim 1: To establish PKCa **as a marker of racial disparities in human prostate cancer.** We will take advantage of a large collection of primary and metastatic human PCa tumors available to the P.I., both from AA and EA men. Using an IHC approach, we will test the hypothesis that there is disproportionate PKCa expression and/or activation in AA PCa. In addition, we will examine whether PKCa expression/hyperactivation co-localizes with markers of invasiveness within the tumors. A racial-dependent categorization analysis based on Gleason score, disease recurrence, and metastasis will be pursued.
• **Specific Aim 2: To establish the *in vivo* functional relevance of PKC**a **in prostate tumorigenesis and metastasis.** First, we will generate syngeneic, doxycycline-inducible mouse PCa cell lines of *"Low PKC*a*"* and *"High PKC*a*"* expression, using RNAi silencing and overexpression (WT and constitutively active PKCa), respectively. Tumor growth and metastasis will be evaluated upon orthotopic cell implantation in prostates of immunocompetent mice. Second, we will examine if genetic deletion of the PKCa gene (*PRKCA*) impairs the spontaneous formation of prostate tumors and metastasis in the PCa TRAMP mouse model. Third, we will use a pharmacological approach *in vivo* (PKCa inhibitor) to authenticate data generated in syngeneic and genetic mouse models, and set proof-of-principle for therapeutics.
• **Specific Aim 3: To determine the relevance of prostate cancer cell PKC**a **in the control of the tumor immune landscape and gene expression.** To understand mechanistically PKCa-driven disparities, we will thoroughly characterize immune cell populations and cytokine production upon inducible PKCa silencing in mouse prostate tumors. This will provide a comprehensive perspective on how cancer cell PKCa contributes to generate a pro-inflammatory and immunosuppressive landscape that is a hallmark of PCa in AA men. In addition, PKCa-driven genetic networks in mouse tumors will be established via transcriptome analysis, which will be integrated with human databases to identify prospective racial differences in PKCa-regulated signaling.
Overlap: No scientific or budgetary overlap with the proposed PRMRP proposal

Project Title: Engineering the next generation of 'best-in-class' CAR T cells for metastatic castration-resistant prostate cancer: from bench-to-bedside-to-bench and back to bedside
Time Commitment: 0.36 CM
Supporting Agency: PROSTATE CANCER FOUNDATION
Sponsor Award Number: PFC Challenge Award
Agency Contact: NA
Performance Period: 01/01/2023 - 12/31/2024
Level of Funding:
Project Goals: This project will test innovative concepts designed to understand and overcome resistance to CAR T cell therapy, with the goal of improving outcomes in mCRPC. The proposed work is addressing several major limitations of treatment with CAR T cells by employing state-of-the-art single-cell spatially-resolved tissue profiling and the principles of synthetic biology to design more potent, durable and less toxic cellular therapy.
Specific Aims: Aim 1. To unravel cell-cell communications in the TME th at direct CAR T cell res ponse and resistance to mCRPC. Aim 2. We will use an innovative genetic knock-in approach for engineering bispecific CARs in T cells targeting heterogeneously expressed prostate cancer-associated antigens and aberrant glycosylation products; simultaneous disruption of genes encoding two key transcription factors identified in pre-infusion mCRPC patient CAR T cells that reciprocally regulate the balance of T cell stemness and exhaustion will be accomplished using this strategy.
Overlap: No scientific or budgetary overlap with the proposed PRMRP proposal

Project Title: Diacylglycerol signaling in aggressive prostate cancer

Time Commitment: 0.6 CM
Supporting Agency: DOD
Sponsor Award Number: NA
Agency Contact: NA
Performance Period: 7/1/23-6/30/26
Level of Funding:
Project Goals: We propose to define the biology of prostate cancer progression to lethal prostate cancer to reduce death and Advance health equity and reduce disparities in prostate cancer.
Specific Aims: SPECIFIC AIM 1: To establish the in vivo functional relevance of aberrant DAG/PKCa signaling in prostate tumorigenesis and metastasis using xenografts and genetically-engineered mouse models.
Hypothesis: Our preliminary results compellingly established the requirement of PKCa for the proliferative and tumorigenic activities of aggressive PCa cells, as well as for migration/invasion. We hypothesize that PKCa is crucial for the maintenance of the tumorigenic phenotype and metastasis. To unambiguously address this issue, we will use three complementary approaches: a) a syngeneic mouse model whereby TRAMP-C2 PCa cells91-94 will be engineered to modulate PKCa expression in an inducible-manner and implanted (Aim 1.A); b) a widely used autochthonous model - Transgenic Adenocarcinoma Mouse Prostate (TRAMP)95-97 - that will be made null for PKCa (Aim 1.B); and c) a pharmacological approach for PKCa inhibition in TRAMP models (Aim 1.C).
Overlap: No scientific or budgetary overlap with the proposed PRMRP proposal

Project Title: Addressing Prostate Cancer Disparities in African Americans through Precision Oncology- Project 2
Time Commitment: 0.6 CM
Supporting Agency: NCI/NIH
Sponsor Award Number: P50CA265799
Agency Contact: NA
Performance Period: 07/01/2023-60/30/2028
Level of Funding:
Project Goals: We will review the morphologic, molecular and immune markers associated with aggressive behavior of prostate cancer in men of African descent.
Specific Aims: The SPORE will undertake research to achieve the following Specific Aims:
Aim 1: Discover mechanisms and biomarkers in PCa that can be translated into precision oncology therapies targeted to AAM.
Aim 2: Translate these discoveries into clinical modalities that ensure optimal therapeutic responses and avoid the generation or exacerbation of PCa disparities.
Aim 3: Create mechanisms and interactions with the broader community to have a public health impact on PCa disparities in AAM.
Overlap: No scientific or budgetary overlap with the proposed PRMRP proposal

Project Title: Addressing Prostate Cancer Disparities in African Americans through Precision Oncology- Core B: Pathology and Biomarker Core (PBC)
Time Commitment: 0.6 CM
Supporting Agency: NCI/NIH
Sponsor Award Number: P50CA265799
Agency Contact: NA
Performance Period: 07/01/2023-60/30/2028
Level of Funding:
Project Goals: Dr Lal will be the central reviewer for all the prostate cancer cases. She will be leading the construction of TMAs. She will be leading the IHC initiative and collection of data for the projects of the SPORE.
Specific Aims: The SPORE will undertake research to achieve the following Specific Aims:
Aim 1: Discover mechanisms and biomarkers in PCa that can be translated into precision oncology therapies targeted to AAM.
Aim 2: Translate these discoveries into clinical modalities that ensure optimal therapeutic responses and avoid the generation or exacerbation of PCa disparities.
Aim 3: Create mechanisms and interactions with the broader community to have a public health impact on PCa disparities in AAM.
Overlap: No scientific or budgetary overlap with the proposed PRMRP proposal

Previous

Title: Exploiting Cholesterol Metabolism to Treat Primary and Metastatic Renal Carcinoma W81XWH2010856 (Simon)
Time Commitments: 0.25 CM
Supporting Agency: DOD
Address:
1120 Fort Detrick
Frederick, MD, 21702
Contracting/Grants Officer: Thomas Winter
Performance Period: 9/1/20-9/29/22
Level of funding:
Project Goals: The objectives of this project are to explore the roles of SCARB1 and HSD3B7 in the accumulation of cholesterol and cholesterol esters in clear cell renal carcinoma, with the goal to inhibit both pharmacologically for improved treatment of this disease.
Specific Aims: Aim 1A: Evaluation of SCARB1 effects on orthotopic and metastatic ccRCC
Aim 1B: Translating SCARB1 inhibition into future ccRCC treatments
Aim 1C: Defining the mechanistic basis of SCARB1 effects on ccRCC cell growth
Aim 2A: Evaluation of HSD3B7 effects on orthotopic and metastatic ccRCC
Aim 2B: Defining the mechanistic basis of HSD3B7 inhibition-mediated ccRCC cell death
Overlap: No scientific or budgetary overlap with the proposed PRMRP proposal

Project Title: Precision Interception of Aggressive Prostate Cancer in African American Men
Time Commitment: 0.1572
Supporting Agency: DANA-FARBER CANCER INSTITUTE (NATIONAL CANCER INSTITUTE/NIH/DHHS)
Sponsor Award Number: 5P20CA233255-03
Address: 9000 Rockville Pike
Bethesda, MD 20892
Agency Contact: Justin Birken
Performance Period: 09/01/2021 - 08/31/2022
Level of Funding:
Project Goals: This project will evaluate the tumor microenvironment of prostate cancer and outcomes. Additionally this project will develop an image data base for application of AI algorithms for identification of aggressive features.
Specific Aims: Summary The mission of the proposed P20 is to reduce and eliminate disparities in prostate cancer (PCa) mortality among African American (AA) men by developing and implementing strategies that will (1) optimize therapeutic approaches, (2) generalize precision medicine approaches, and (3) im- plement and disseminate optimal therapeutic approaches for AA men with PCa. To achieve these goals, this P20 proposal will build on the "Men of African Descent and Carcinoma of the Prostate" (MADCaP) network that has developed infrastructure and data to address disparities in PCa in AA men. The team assembled here has previously collaborated to develop transla- tional research that is led by established basic and clinical experts who have worked together to develop each concept. The result is a novel inter-disciplinary collaboration with the potential to maximize clinical impact on PCa disparities in AA men. The Administration Core will support three projects as well as the Biosample and Biomarker Core. The Administration Core will also coordinate the oversight activities of the External Advi- sory Board (the Community, Clinical, and Scientific Advisory Board, CCSAB) and the Steering Committee comprised of all project and core leaders. The CCSAB in turn will oversee the selec- tion and monitoring of the Developmental Research Project (DRP) component. These DRPs will foster "collective Impact" research that refers to the commitment of a group of important actors from different sectors to adopt a common agenda for solving a specified problem. These collec- tive impact developmental pilots will work in parallel with the three research projects to foster research of the highest quality and potential for clinical applications, inspire groundbreaking ide- as, and to promote the transition of pilot studies with the highest translational potential into a full SPORE application after three years. Finally, the Administration Core will work with three part- ners that bring substantial resources toward the success of this proposal. These resources are (1) The Dana Farber Harvard Cancer Center (DFHCC) SPORE in Prostate Cancer; (2) the DFHCC Initiative to Eliminate Cancer Disparities; and (3) the MADCaP Implementation Network (MADCaP-IN) that includes community and inner city clinics that see a substantial proportion of AA PCa cases in Boston, Philadelphia, and Tampa, as well as linkages to the Walter Reed Ar- my Hospital through the Center for Prostate Disease Research. The MADCaP-IN will serve as the centers for research participant accrual as well

as centers for the implementation of current and future clinical research.
Overlap: No scientific or budgetary overlap with the proposed PRMRP proposal

OTHER SUPPORT

Name of PI: Ronac Mamtani
Commons ID: MAMTANI

ACTIVE

Title: ***UPCC 24816: MK-3475-361 Phase III Randomized Controlled Trial of Pembrolizumab with or without Chemo vs Chemo in Advanced Urothelial Carcinoma***
Major Goals: To study efficacy of chemo-immunotherapy versus chemo alone in urothelial cancer.Project Number: **MK-3475-361-3583** Status of Support: Active
Source of Support: MERCK & CO., INC.
Name of PD/PI: Mamtani, Ronac Role: PI
Sponsor Contact: Tracy Hoggatt; tracy.hoggatt@merck.com
Primary Place of Performance: University of Pennsylvania
Project Period: 10/10/2016-12/31/2022 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2022
Effort	1.2 Cal.

Title: **(UPCC 09818): An Open-Label, Randomized Phase 3 Study to Evaluate Enfortumab Vedotin vs. Chemotherapy in Subjects with Previously Treated Locally Advanced or Metastatic Urothelial Cancer**
Major Goals: To study efficacy of enfortumab versus single agent chemotherapy in urothelial cancer
Project Number: **Mamtani-7465-CL-301** Status of Support: Active
Source of Support: ASTELLAS PHARMA INC
Name of PD/PI: Mamtani, Ronac Role: PI
Sponsor Contact: Kyla Billings; Kyla.Billings@PAREXEL.com
Primary Place of Performance: University of Pennsylvania
Project Period: 09/11/2018 - 06/30/2024 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2023-2024
Effort	0.24 Cal.

Title: **Retrospective study to characterize Enfortumab Vedotin (EV) users, usage patterns, and treatment sequence: insights from real-world practice**
Major Goals: To characterize real-world treatment patterns of EV.
Project Number: **Mamtani-7465-CL-301** Status of Support: Active
Source of Support: ASTELLAS PHARMA INC
Name of PD/PI: Mamtani, Ronac Role: PI
Sponsor Contact: **Karen Barge, Karen.Barge@astellas.com**
Primary Place of Performance: University of Pennsylvania
Project Period: 5/10/22-5/10/24 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2023-2024
Effort	4.8 Cal.

Title: (UPCC 22818): Neoadjuvant gemcitabine, cisplatin, plus nivolumab in patients with muscle-invasive bladder cancer with selective bladder sparing
Major Goals: To study efficacy of chemo-immunotherapy with bladder preservation in bladder cancer.
Project Number: **Mamtani-7465-CL-301** Status of Support: Active
Source of Support: HOOSIER CANCER RESEARCH NETWORK, INC
Name of PD/PI: Mamtani, Ronac Role: PI
Sponsor Contact: Linde Phillips; lphillips@hoosiercancer.org
Primary Place of Performance: University of Pennsylvania

OTHER SUPPORT

Name of PI: Ronac Mamtani
Commons ID: MAMTANI
Project Period: 03/07/2019 – 12/31/2022 Total Award Amount: Person Months (Calendar/Academic/Summer) per budget period.

Year	2022
Effort	0.24 Cal.

Title: ***Leveraging Real-World Data to Optimize Immune-checkpoint Blockade in Metastatic Urothelial Cancer (mUC)***
Major Goals: **Aim 1:** To understand the immunotherapy (IO) landscape in metastatic urothelial cancer (mUC)
Aim 2: To describe real-world (rw) evidence of first-line (1L) IO (overall IOs and by agent) effectiveness
Aim 3: To determine optimal treatment sequence in initiators of chemotherapy or IO
Aim 4: To identify subpopulations that might benefit the most from pembrolizumab or chemotherapy
Project Number: UT MDACC Status of Support: Active
Source of Support: MERCK & CO., INC
Name of PD/PI: Ronac mantani Role: PI
Sponsor Contact: Haojie Li; haojie.li@merck.com
Primary Place of Performance: University of Pennsylvania
Project Period: 9/11/20-06/30/24 Total Award Amount: Person Months (Calendar/Academic/Summer) per budget period.

Year	2023	2024
Effort	0.84 Cal.	2.80 Cal.

Title: ***University of Pennsylvania Clinical Trial Site Application for Kidney Cancer Research Consortium Award***
Major Goals: Aim 1: Design innovative clinical trials for the KCRC; Aim 2. Accrue at least 25 patients per year to KCRC trials; Aim 3. Perform translational research on samples obtained from KCRC trials.
Project Number: UT MDACC Status of Support: Active
Source of Support: Department of Army
Name of PD/PI: Haas Role: Co-Investigator
Sponsor Contact: Amie Bunker; amie.d.bunker.civ@mail.mil
Primary Place of Performance: University of Pennsylvania
Project Period: 9/15/20-9/14/24 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2023	2024
Effort	0.36 Cal.	0.36 Cal.

Title: **(UPCC 13822): A Non-Interventional Retrospective Real-World Study to Assess Treatment Patterns, Surrogate Endpoints & Overall Survival in Muscle Invasive Bladder Cancer**
Major Goals: Among patients who underwent RC + PLND (with or without neoadjuvant chemotherapy) as their initial treatment for MIBC:
To describe the baseline demographic, clinical, and disease characteristics
To describe treatment patterns overall and by patient characteristics
To describe clinical outcomes overall and by patient characteristics and/or treatment options (e.g., patients who received vs. did not receive neoadjuvant chemotherapy, cisplatin eligible vs ineligible patients) In addition, as a secondary objective, the study will also explore to assess the strength of association of surrogate endpoints with OS and EFS.
Project Number: **EPO5026.049/VEAP 7977-004- Mam** Status of Support: Active
Source of Support: MERCK & CO., INC.
Name of PD/PI: Mamtani, Ronac Role: PI
Sponsor Contact: Teryl.Hurr@iqvia.com

OTHER SUPPORT

Name of PI: Ronac Mamtani
Commons ID: MAMTANI
Primary Place of Performance: University of Pennsylvania
Project Period: 9/16/22-9/15/23 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2023
Effort	0.48 Cal.

PENDING

Title: **UPCC 2820: An Open-label, Randomized, Controlled Phase 3 Study of Enfortumab Vedotin in Combination With Pembrolizumab With or Without Chemotherapy, Versus Chemotherapy Alone in Previously Untreated Locally Advanced or Metastatic Urothelial Cancer**
Major Goals: To study efficacy of enfortumab in combination with immunotherapy versus immunotherapy alone in urothelial cancer.
Project Number:
Status of Support: Active
Source of Support: Seattle Genetics
Name of PD/PI: Ronac Mamtani
Role: PI
Sponsor Contact: Kathy Morel - kmorel@seagen.com
Primary Place of Performance: University of Pennsylvania
Project Period: 1/1/22-12/31/25 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2023-2025
Effort	1.2 Cal.

Title: **Adoption and Impact of Genomic Testing in Real World Cancer Treatment**
Major Goals: To to characterize the use of genomic testing among patients diagnosed with solid tumors and to determine how testing and test results impact treatment, survival, and costs of care.
Project Number:
Status of Support: Pending
Source of Support: NIH through Yale
Name of PD/PI: Cary Gross; Michaela Dinan
Role: Co-Investigator
Sponsor Contact: Soulos, Pamela <pamela.soulos@yale.edu>
Primary Place of Performance: University of Pennsylvania
Project Period: 4/1/23-3/31/28 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2023 -2028
Effort	0.6 Cal.

In-Kind: None

OVERLAP: None

Previous

Title: ***Abramson Cancer Center Support Grant***
Major Goals: Pilot study of tobacco use and treatment outcomes among bladder cancer patients
Project Number: P30 CA016520 Status of Support: Completed
Source of Support: NIH
Name of PD/PI: Robert Vonderheide Role: Pilot PI

OTHER SUPPORT

Name of PI: Ronac Mamtani
Commons ID: MAMTANI
Sponsor Contact: Krzysztof Ptak krzysztofptak@ninds.nih.gov
Primary Place of Performance: University of Pennsylvania
Project Period: 02/01/2017 – 6/30/19 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2019
Effort	0.1 Cal.

Title: **UPCC 22817: A Phase 3 Randomized, Double-Blind Clinical Study of Pembrolizumab + Epacadostat vs Pembrolizumab + Placebo as a Treatment for Recurrent or Progressive Metastatic Urothelial Carcinoma in Patients who have Failed a First-Line Platinum-containing Chemotherapy Regimen for Advanced/Metastatic Disease (KEYNOTE-698/ECHO-303**
Project Number: Mamtani-MK-3475-698-00
Status of Support: Completed
Source of Support: MERCK & CO., INC.
Name of PD/PI: Mamtani, Ronac Role: PI
Sponsor Contact: Mei Chen ; Bart Ziemski; bziemski@upenn.edu
Primary Place of Performance: University of Pennsylvania
Project Period: 04/17/2018 - 04/16/2020 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2020
Effort	0.24 Cal.

Title: **UPCC# 13915; Clinical Protocol: APX005M-001 Phase 1 Study to Evaluate the Safety and Tolerability of the CD40 Agonistic Monoclonal Antibody APX005M in Subjects with Solid Tumors**
Project Number: **822566 Apexigen**
Status of Support: Completed
Source of Support: APEXIGEN INC
Name of PD/PI: Ronac Mamtani
Role: PI
Sponsor Contact: Xiadong Yang; Bart Ziemski; bziemski@upenn.edu
Primary Place of Performance: University of Pennsylvania
Project Period: 07/24/2015-07/23/2018 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2018
Effort	1.2 Cal.

Title: **Insulin resistance in the development and progression of invasive bladder cancer**
Major Goals: This prospective cohort study will address the relationship between insulin resistance in the development and progression of invasive bladder cancer. Importantly, it will serve as an accrual platform for the proposed case- control study.
Project Number: **1K23CA187185-01A1**
Status of Support: Completed
Source of Support:
Name of PD/PI: Ronac Mamtani
Role: PI
Sponsor Contact: Susan E Lim; lims@mail.nih.gov
Primary Place of Performance: University of Pennsylvania
Project Period: 7/01/2015-09/30/2020 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2020	2024

OTHER SUPPORT

Name of PI: Ronac Mamtani
Commons ID: MAMTANI

Effort	9 Cal.	Cal.

Title: ***Abramson Cancer Center Support Grant***
Major Goals: Pilot-Refining Expectations on Checkpoint inhibitor Outcomes in Underrepresented Populations (RECOUP)
Specific Aim 1: To characterize disparities in enrollment in pivotal clinical trials of immunotherapy for lung, bladder, and renal cancers by comparing clinical characteristics of patients treated with immunotherapy in routine practice vs those enrolled in clinical trials.
Specific Aim 2: To quantify disparities in survival between immunotherapy-treated trial participants, real-world populations, and underrepresented subpopulations (e.g., those with organ dysfunction, poor performance status, and older age).
Specific Aim 3: To determine differences in survival among the underrepresented subpopulations treated with first-line immunotherapy vs (a) the standard of care prior to availability of immunotherapy and (b) no therapy.
Project Number: P30 CA016520 Status of Support: Completed
Source of Support: NIH
Name of PD/PI: Robert Vonderheide Role: Pilot PI
Sponsor Contact: Krzysztof Ptak krzysztofptak@ninds.nih.gov
Primary Place of Performance: University of Pennsylvania
Project Period: 03/01/2020-11/30/2020 Total Award Amount:
Person Months (Calendar/Academic/Summer) per budget period.

Year	2020
Effort	5.1 Cal.

Support
Lee, Daniel

Current:
Title: University of Pennsylvania Clinical Trial Site Application for Kidney Cancer Research Consortium Award (PI: Haas)
Time Commitments: 0.36 calendar
Supporting Agency: Department of Army
Address: 1077 Patchel Street, Fort Detrick, MD 21702-5024
Contracting/Grants Officer: Amie Bunker; amie.d.bunker.civ@mail.mil
Performance Period: 09/01/2020 - 8/31/2024
Level of funding:
Project Goals and Aims: The major aims of this project involve the design of innovative clinical trials for the KCRC, accruing at least 25 patients per year to KCRC trials, and performing translational research on samples obtained from KCRC trials
Overlap: None

Pending

Title: Genetic Identification of Potential Drug Targets for Benign Prostatic Hyperplasia
Time Commitments: 0.6 calendar
Supporting Agency: National Institute of Health
Address: 3400 Spruce St # 4, Philadelphia, PA 19104,
Contracting/Grants Officer: Aisling McCormick, aisling.mccormick@pennmedicine.upenn.edu,
Level of funding:
Project Goals and Aims: Identify genetic variants and genes associated with benign prostatic hyperplasia using genome wide association studies of large national datasets, determine in which cell types BPH-associated genetic elements function, and evaluate the potential of the identified genes as drug targets for BPH.
Overlap: None

Title: Developing Engineered Cell Therapies for Metastatic Castrate Resistant Prostate Cancer to Increase Efficacy and Decrease Toxicity
Time Commitments: 0.36 calendar
Supporting Agency: Prostate Cancer Foundation
Address: 3400 Spruce St # 4, Philadelphia, PA 19104
Contracting/Grants Officer: Aisling McCormick, aisling.mccormick@pennmedicine.upenn.edu **Performance Period:** 7/1/23 – 6/30/26
Level of funding:
Project Goals and Aims: Engineer T-cells with enhanced cell-intrinsic resistance to CRPC by developing methods to enhance targeting and overcome T cell exhaustion and senescence; address T cell extrinsic issues to overcome antigen heterogeneity and immunosuppression in the TIME, and discover CAR targets that are preferentially expressed in Black men; advanced analytic technologies will be employed to interrogate the TIME and perform spatial deconvolution of bone and visceral metastasis in patients treated on T cell trials at our institution
Overlap: None

Completed:

Title: Urine-based Biomarkers for Detection and Risk Stratification of Bladder Cancer
Time Commitments: <0.12 calendar
Supporting Agency: University of Pennsylvania Department of Surgery
Address: 3400 Spruce St # 4, Philadelphia, PA 19104
Contracting/Grants Officer: Aisling McCormick, aisling.mccormick@pennmedicine.upenn.edu **Performance Period:** 7/1/2020 – 6/30/2022
Level of funding:

Project Goals and Aims: Evaluating use of a nanopore platform to detect and diagnose bladder cancer, and improve risk stratification of bladder cancer
Overlap: None

Title: Exploiting Cholesterol Metabolism to Treat Primary and Metastatic Renal Carcinoma (PI: Simon)
Time Commitments: 0.36 calendar
Supporting Agency: Department of Defense Congressionally Directed Medical Research Programs, Kidney Cancer Research Program KC190080
Address: 1077 Patchel Street, Fort Detrick, MD 21702-5024
Contracting/Grants Officer: Joshua D. McKean Grants Officer, joshua.d.mckean@mail.mil
Performance Period: 7/1/2020 – 9/29/2022
Level of funding:
Project Goals and Aims: Characterizing and understanding the mechanisms of cholesterol metabolism, and identify novel therapeutic approaches for localized and metastatic renal cell carcinoma.
Overlap: None

Title: Learning Health Systems Mentored Career Development Program (PI: Kimmel, S/Asch, D)
Time Commitments: 9.0 calendar
Supporting Agency: Agency for Healthcare Research and Quality, 1K12 HS026372
Address: 5600 Fishers Ln #7, Rockville, MD 20857, +13014271104
Contracting/Grants Officer: Gabrielle Ostapovich, University of Pennsylvania, Email: gost@pennmedicine.upenn.edu
Performance Period: 09/30/2019-09/29/2021
Level of funding:
Project Goals and Aims: Transforming the Generation and Adoption of PCOR in Practice (T-GAPP). T-GAPP is designed to advance the nation's leadership capacity in deploying patient-centered outcomes research within learning health systems (LHS). The specific aim of the program is to recruit and train future leaders in patient centered outcomes research (PCOR) methods and conduct PCOR research in a LHS.
Overlap: None

Title: Using patient centered data and behavioral economics to improve physical conditioning, mobility, and healthcare utilization after radical cystectomy
Time Commitments:
Supporting Agency: NIA Research Centers Collaborative Network, U24AG058556 – RFA for Behavioral Change to Benefit Older Adults
Address: 251 Bayview Blvd, Baltimore, MD 21224,
Contracting/Grants Officer: Frank Bandiera, frank.bandiera@nih.gov
Performance Period: 7/1/ 2019 – 12/31/2021
Level of funding:
Project Goals and Aims: Randomized-controlled trial of behavioral economics approaches (gamefication and social incentives) to increase mobility (daily step counts) in patients with bladder cancer undergoing radical cystectomy at the Hospital of the University of Pennsylvania.
Overlap: None

Title: Connected Health and Population Health Improvement
Time Commitments: 1.2 calendar
Supporting Agency: Institute for Translational Medicine and Therapeutics (ITMAT; Penn CTSA)
Address: 3400 Civic Center Blvd, Philadelphia, PA 19104
Contracting/Grants Officer: Andrea Albelda, aalbelda@pennmedicine.upenn.edu
Performance Period: 6/01/2019 – 12/31/2021
Level of funding:
Project Goals and Aims: Support for projects (Identifying Health Mobility Targets and Changing Behavior in

Hospitalized Seniors) by use of Way To Health research platform.
Overlap: None

Other Support at Veterans Affairs

Current: None

Pending
Title: RESOLVE PCa VA Consortium:Targeting the untargetable - Determining mulitilevel factors that induce chromosomal instability (CIN) in lethal prostate cancer (PCa) and potential points of interception
Time Commitments: 0.36 calendar
Supporting Agency: Prostate Cancer Foundation
Address: 3400 Spruce St # 4, Philadelphia, PA 19104
Contracting/Grants Officer: Aisling McCormick, aisling.mccormick@pennmedicine.upenn.edu **Performance Period:** 7/1/23 – 6/30/26
Level of funding:
Project Goals and Aims: Quantify chromosomal instability in primary tumors, determine multilevel factors associated with the development of CIN prostate cancer, and evaluate performance of clinical grade CIN assays in prostate cancer. Evaluate determinants of the immune response in Veterans with CIN+ prostate cancer.
Overlap: None

Title: Identification of genomic alterations in testicular cancer among Hispanic compared to non-Hispanic men in the Million Veteran Program
Time Commitments: 9.0 calendar
Supporting Agency: Veterans Affairs Medical Center
Address: 3800 Woodland Ave, Philadelphia PA 19104
Contracting/Grants Officer: Tinesar Priester; Tinesar.Priester@va.gov
Performance Period: 7/1/23 – 6/30/28
Level of funding:
Project Goals and Aims: Identify genetic variants and genes associated with testicular cancer using genome wide association studies of the Million Veterans Program, determine differences in genetically determined ancestry especially among Hispanic men that have increasing rates of testicular cancer, and evaluate the potential of the identified genes as drug targets for testicular cancer.
Overlap: None

IN-KIND
N/A

Current and Pending Support

Investigator: VIVEK K NARAYAN

Current Support

Project Title: UPCC 05817: A Phase 2 Trial of Nivolumab Plus Ipilimumab in Men with Metastatic Castration-Resistant Prostate Cancer (CA209-650)
Time Commitment: >0.12
Supporting Agency: BRISTOL-MYERS SQUIBB COMPANY
Name of PD/PI: Vivek Narayan Role: PI
Sponsor Award Number: CA209650 - Narayan
Agency Contact: Katie Joyce, Project Leader, katie.joyce@bms.com
Performance Period: 08/23/2017 - 12/31/2022
Level of Funding:
Project Goals: The purpose of this study is to evaluate the effectiveness, safety and tolerability of nivolumab followed by ipilimumab, in subjects with metastatic castration resistant prostate cancer (mCRPC).
Overlap: There is no overlap with the current project

Project Title: UPCC 02818 (IIT Pfizer Phase 1/1b Avelumab + Gemcitabine for RCC w/ Sarcomatoid Diff) Initial Submission Notification
Time Commitment: >0.12
Supporting Agency: PFIZER INC.
Name of PD/PI: Vivek Narayan Role: PI
Sponsor Award Number: Narayan-WI224974
Agency Contact: Zhou Yang, Project Leader, zhou.yang@pfizer.com
Performance Period: 03/16/2018 - 06/30/2024
Level of Funding:
Project Goals: To determine the feasibility and safety of avelumab and gemcitabine combination therapy in patients with metastatic sRCC.
Overlap: There is no overlap with the current project

Project Title: An Open Label Phase 2 Study to Evaluate PT2977 for the Treatment of von Hippel- Lindau Disease-Associated Renal Cell Carcinoma
Time Commitment: >0.12
Supporting Agency: PELOTON THERAPEUTICS, INC.
Name of PD/PI: Vivek Narayan Role: PI
Sponsor Award Number: PT2977-202
Agency Contact: Holly McDonald, Project Leader, holly.mcdonald@pelotontx.com
Performance Period: 08/15/2018 - 06/30/2024
Level of Funding:
Project Goals: This study is designed to investigate belzutifan as a treatment for VHL disease associated RCC.
Overlap: There is no overlap with the current project

Project Title: (UPCC 20818): A Phase 2 Study to Evaluate Safety and Anti-tumor Activity of Avelumab in Combination with Talazoparib In Patients with BRCA or ATM Mutant Tumors
Time Commitment: >0.12
Supporting Agency: PFIZER INC.
Name of PD/PI: Vivek Narayan Role: PI
Sponsor Award Number: B9991032
Agency Contact: Zhou Yang, Project Leader, zhou.yang@pfizer.com

Performance Period: 09/26/2018 - 06/30/2024
Level of Funding:
Project Goals: Avelumab in combination with talazoparib will be investigated in patients with locally advanced or metastatic solid tumors with a BRCA or ATM defect.
Overlap: There is no overlap with the current project

Project Title: The cell and gene therapy toolkit for junior faculty
Time Commitment: >0.12
Supporting Agency: NATIONAL CANCER INSTITUTE/NIH/DHHS
Name of PD/PI: Elizabeth Hexner Role: Co-I
Sponsor Award Number: 1-UE5-CA-246744-01
Agency Contact: ZAHIR, NASTARAN
Performance Period: 04/01/2020 - 03/31/2023
Level of Funding:
Project Goals: Our objective is to train a cadre of junior faculty level NCI-funded investigators in critical skills related to cell and gene therapy to accelerate their work.
Overlap: There is no overlap with the current project

Project Title: (UPCC 21819): PLATPARP: A Phase II Single-Arm Trial of Niraparib in Platinum-Sensitive Castration-Resistant Prostate Cancer with DNA Repair Defects
Time Commitment: >0.12
Supporting Agency: JANSSEN RESEARCH FOUNDATION
Name of PD/PI: Vivek Narayan Role: PI
Sponsor Award Number: 64091742PCR2006
Agency Contact: PennCancerTrials@emergingmed.com
Performance Period: 06/03/2020 - 06/30/2024
Level of Funding:
Project Goals: This study will evaluate the initial safety and effectiveness of an investigational drug, niraparib, given to patients who have recently received platinum-based chemotherapy for the treatment of prostate cancer.
Overlap: There is no overlap with the current project

Project Title: CART-PSMA-TGFBRDN-02: A Phase 1 Open-Label, Multi-Center Study of PSMA Targeted Genetically Modified Chimeric Antigen Receptor T Cells in Patients with Metastatic Castration Resistant Prostate Cancer
Time Commitment: >0.12
Supporting Agency: TMUNITY THERAPEUTICS, INC
Name of PD/PI: Vivek Narayan Role: PI
Sponsor Award Number: CART-PSMA-TGFBRDN-02
Agency Contact: Thomas Fountaine, MD clinicaltrials@tmunity.com
Performance Period: 09/01/2020 - 06/30/2025
Level of Funding:
Project Goals: Multi-center, open-label, Phase 1 study of the safety, tolerability and feasibility of dosing patients harboring metastatic castration resistant prostate cancer (mCRPC) with genetically modified autologous T cells (CART-PSMA-TGFβRDN cells) engineered to express a chimeric antigen receptor (CAR) capable of recognizing the tumor antigen prostate-specific membrane antigen (PSMA) and activating the T cell.
Overlap: There is no overlap with the current project

Project Title: University of Pennsylvania Clinical Trial Site Application for Kidney Cancer Research Consortium Award
Time Commitment: 1.0
Supporting Agency: DEPARTMENT OF THE ARMY
Name of PD/PI: Naomi Haas Role: Co-I
Sponsor Award Number: W81XWH2020022
Agency Contact: Amie Bunker; amie.d.bunker.civ@mail.mil
Performance Period: 09/15/2020 - 09/14/2024
Level of Funding:
Project Goals: Aim 1: Design innovative clinical trials for the KCRC; Aim 2. Accrue at least 25 patients per year to KCRC trials; Aim 3. Perform translational research on samples obtained from KCRC trials.
Overlap: There is no overlap with the current project

Project Title: (UPCC 15820): A Phase 3 Randomized, Placebo-controlled, Double-blind Study of Niraparib in Combination with Abiraterone Acetate and Prednisone Versus Abiraterone Acetate and Prednisone for the Treatment of Participants with Deleterious Germline or Somatic Homologous Recombination Repair (HRR) Gene-Mutated Metastatic Castration-Sensitive Prostate Cancer (mCSPC)
Time Commitment: >0.12
Supporting Agency: JANSSEN RESEARCH AND DEVELOPMENT, LLC
Name of PD/PI: Vivek Narayan Role: PI
Sponsor Award Number: Narayan-67652000PCR3002
Agency Contact: Study Contact
Performance Period: 02/01/2021 - 12/31/2028
Level of Funding:
Project Goals: The purpose of the study is to determine if the combination of niraparib with Abiraterone Acetate (AA) plus prednisone compared with AA plus prednisone in participants with deleterious germline or somatic Homologous Recombination Repair (HRR) gene-mutated Metastatic Castration-Sensitive Prostate Cancer (mCSPC) provides superior efficacy in improving radiographic progression-free survival (rPFS).
Overlap: There is no overlap with the current project

Project Title: Understanding and Reducing Racial Disparities in High Risk Cardio-Oncology Communities
Time Commitment: 0.0
Supporting Agency: AMERICAN HEART ASSOCIATION
Name of PD/PI: Bonnie Ky Role: Co-I
Sponsor Award Number: AHA AWARD
Agency Contact:
Performance Period: 07/01/2021 - 06/30/2025
Level of Funding:
Project Goals: The overall objective of our proposed research network is to comprehensively define and mitigate the biologic, structural and personal determinants of racial disparities in high cardiovascular risk cancer patients and survivors.
Overlap: There is no overlap with the current project

Project Title: Phenotyping the Social Determinants of Cardiovascular Health in Cancer Patients and Survivors (Clinical Project)
Time Commitment: >.1 Calendar Month
Supporting Agency: AMERICAN HEART ASSOCIATION
Name of PD/PI: Bonnie Ky Role: Co-I
Sponsor Award Number: KY - AHA
Agency Contact:
Performance Period: 07/01/2021 - 06/30/2025
Level of Funding:

Project Goals: Our goals are to answer the following key questions in breast and prostate cancer survivors. How does a cancer patient's social or economic status affect heart health and what is the impact of race? How does a cancer patient's environment affect heart health and what is the impact of race?
Overlap: There is no overlap with the current project

Project Title: (UPCC 09821): Phase 1/2 Study of Regn4336 (A Psmaxcd3 Bispecific Antibody) Administered Alone or in Combination with Cemiplimab in Patients with Metastatic Castration-Resistant Prostate Cancer
Time Commitment: >0.12
Supporting Agency: REGENERON PHARMACEUTICALS, INC.
Name of PD/PI: Vivek Narayan Role: PI
Sponsor Award Number: R4336-ONC-20104 - Narayan
Agency Contact: Clinical Trials Administrator
Performance Period: 11/12/2021 - 10/31/2024
Level of Funding:
Project Goals: The primary objective of the study is to assess the safety, tolerability, and pharmacokinetics (PK) and to determine recommended phase 2 dosing regimen (RP2DR) of REGN4336 separately as monotherapy or in combination with cemiplimab. To assess preliminary anti-tumor activity of REGN4336 as monotherapy or in combination with cemiplimab as measured by objective response rate (ORR) per modified Prostate Cancer Working Group (PCWG3) criteria. To assess preliminary anti-tumor activity of REGN4336 as monotherapy or in combination with cemiplimab as measured by ORR per modified PCWG3 criteria
Overlap: There is no overlap with the current project

Project Title: (UPCC 11821): A Phase 2 Multiple-Dose, Multiple-Arm, Parallel Assignment Study to Evaluate the Safety, Tolerability, and Preliminary Efficacy of XmAb(R)20717 Alone or in Combination with Chemotherapy or Targeted Therapies in Selected Subjects with Metastatic Castration-Resistant Prostate Cancer
Time Commitment: Dependent on enrollment
Supporting Agency: XENCOR, INC.
Name of PD/PI: Vivek Narayan Role: PI
Sponsor Award Number: XmAb20717-04 - Narayan
Agency Contact: Jolene Shorr 858-275-0004 jshorr@xencor.com
Performance Period: 11/29/2021 - 11/28/2023
Level of Funding: >0.12
Project Goals: This Phase 2 study will investigate the safety and clinical activity of XmAb20717 alone or in combination with standard of care anticancer therapies in patients with metastatic castration-resistant prostate cancer (mCRPC) who have been treated with at least 2 prior lines of anticancer therapy.
Overlap: There is no overlap with the current project

Project Title: (UPCC 21121): An Open-Label Study For Continued Treatment Access For Participants From The B9991032 Avelumab Study
Time Commitment: >0.12
Supporting Agency: PFIZER INC.
Name of PD/PI: Vivek Narayan Role: PI
Sponsor Award Number: B9991046 - Narayan
Agency Contact: 1-855-216-0098
Performance Period: 04/22/2022 - 04/30/2025
Level of Funding:

Project Goals: The purpose of the continuation sub-study is to provide continued treatment access for participants from the B9991032 Parent Study who are deriving benefit from study treatment as judged by the investigator.
Overlap: There is no overlap with the current project

Project Title: (UPCC 10821): A Phase 1/2 Study of REGN5678 (anti-PSMAxCD28) with Cemiplimab (anti-PD-1) in Patients with Metastatic Castration-resistant Prostate Cancer
Time Commitment: >0.12
Supporting Agency: REGENERON PHARMACEUTICALS, INC.
Name of PD/PI: Vivek Narayan Role: PI
Sponsor Award Number: Narayan - R5678-ONC-1879
Agency Contact: Clinical Trials Administrator
Performance Period: 05/09/2022 - 11/30/2023
Level of Funding:

Project Goals: The primary objectives of the study in Dose Escalation are to evaluate safety, tolerability, and pharmacokinetics (PK) of REGN5678 alone and in combination with cemiplimab and in Dose Expansion are to assess efficacy, as measured by objective response rate (ORR) per modified Prostate Cancer Working Group 3 (PCWG3) criteria, of REGN5678 in combination with cemiplimab.

The secondary objectives of the study in Dose Escalation are to assess efficacy, as measured by ORR per modified PCWG3 criteria, of REGN5678 in combination with cemiplimab and in Dose Expansion are to characterize the safety profile in each expansion cohort and to characterize the PK of REGN5678 in combination with cemiplimab. Secondary objectives in both Dose Escalation and Dose Expansion are to assess efficacy of REGN5678 in combination with cemiplimab, as measured by additional criteria and to assess immunogenicity of REGN5678 in combination with cemiplimab.

Overlap: There is no overlap with the current project

Project Title: (UPCC 19821): A Phase 1, Dose Escalation Study of JNJ-75229414, a Chimeric Antigen Receptor T cell (CAR-T) Therapy Directed Against KLK2 for Metastatic Castration-Resistant Prostate Cancer
Time Commitment: >0.12
Supporting Agency: JANSSEN RESEARCH AND DEVELOPMENT, LLC
Name of PD/PI: Vivek Narayan Role: PI
Sponsor Award Number: 75229414MPC1001 - Narayan
Agency Contact: Study Contact
Performance Period: 06/08/2022 - 03/31/2026
Level of Funding:
Project Goals: The purpose of this study is to determine recommended Phase 2 dose (RP2D) regimen(s) of JNJ-75229414 in Part 1 (Dose Escalation and to determine safety at the RP2D regimen(s) in Part 2 (Dose Expansion).
Overlap: There is no overlap with the current project

In kind: None

Pending Support: None

Previous Support

Project Title: UPCC 18816: A Phase IB Dose Exploration Trial with MK-8628, a Small Molecule Inhibitor of the Bromodomain and Extra-Terminal (BET) Proteins, in Subjects with Selected Advanced Solid Tumors
Time Commitment: 0.0
Supporting Agency: MERCK & CO., INC.

Name of PD/PI: Vivek Narayan Role: PI
Sponsor Award Number: MK-8628-006-00
Agency Contact: Contact information is only displayed when the study is recruiting subjects
Performance Period: 08/12/2016 - 08/11/2018
Level of Funding:

Project Goals: Open-label, phase I, non-randomized, multicentric study of single-agent birabresib (MK-8628) (formerly known as OTX015) administered according to two distinct regimens to participants with selected advanced tumors.

Overlap: There is no overlap with the current project

Project Title: UPCC 20816: Phase II Trial of Pembrolizumab (MK-3475) in Subjects with Metastatic Castration-Resistant Prostate Cancer (mCRPC) Previously Treated with Chemotherapy (KEYNOTE-199)
Time Commitment: 0.0
Supporting Agency: MERCK & CO., INC.
Name of PD/PI: Vivek Narayan Role: PI
Sponsor Award Number: MK-3475-199
Agency Contact: Contact information is only displayed when the study is recruiting subjects
Performance Period: 09/28/2016 - 09/27/2018
Level of Funding:
Project Goals: This is a study of pembrolizumab (MK-3475) in participants with metastatic castration-resistant prostate cancer (mCRPC). Participants will be enrolled into one of five cohorts: Cohort 1 (participants with programmed cell death ligand 1 [PD-L1]-positive, measurable disease), Cohort 2 (participants with PD-L1 negative, measurable disease), Cohort 3 (participants with bone-metastases and non-measurable disease) post-chemotherapy, Cohort 4 (participants with Response Evaluation Criteria in Solid Tumors version 1.1- [RECIST 1.1]-measureable disease) and Cohort 5 (participants with bone metastases only or bone-predominant disease) pre-chemotherapy.
Overlap: There is no overlap with the current project

Project Title: ACS Institutional Research Grant
Time Commitment: 0.0
Supporting Agency: AMERICAN CANCER SOCIETY
Name of PD/PI: Vivek Narayan Role: PI
Sponsor Award Number: IRG-16-188-38
Agency Contact: Cecilia Scavelli, Associate Director for Research Administration, Abramson Cancer Center cecilia2@upenn.edu
Performance Period: 01/01/2017 - 12/31/2020
Level of Funding:
Project Goals: Demonstrated a new engineering technique that, because it is less toxic to the T cells, could enable a different mechanism for altering the way they recognize cancer.
Overlap: There is no overlap with the current project

Project Title: UPCC 04817: A phase IB open-label, dose escalation and expansion study to investigate the safety, pharmacokinetics, pharmacodynamics and clinical activity of GSK525762 in combination with androgen deprivation therapy and other agents in subjects with castrateresistant prostate cancer (CRPC)
Time Commitment: 0.0
Supporting Agency: GLAXOSMITHKLINE
Name of PD/PI: Vivek Narayan Role: PI
Sponsor Award Number: 204697-Narayan-827302
Agency Contact: Curt Moyer, Project Leader, curt.moyer@parexel.com
Performance Period: 05/18/2017 - 12/31/2021
Level of Funding:

Project Goals: This study aims to evaluate the combination of GSK525762 with other agents that have been shown to be effective in the treatment of CRPC or metastatic (m)CRPC. This study is designed to determine the maximum tolerated dose (MTD) and recommended Phase II dose (RP2D) based on safety, tolerability, pharmacokinetic, and efficacy profiles of GSK525762 in combination with either abiraterone (Arm A) or enzalutamide (Arm B).
Overlap: There is no overlap with the current project

Current and Pending Support

Investigator: REGINA M YOUNG

Current Support

Project Title: Chimeric Antigen Receptor T Cell Therapy for Pancreatic Cancer
Project Goals: CAR T cell therapy is a translational breakthrough that has proven to be highly effective for a variety of B cell malignancies, including acute lymphocytic leukemia, diffuse large B cell lymphoma, follicular lymphoma and chronic lymphocytic leukemia (1). Our recent work has demonstrated the ability to extend the CAR T cell approach to a CD19-negative tumor, multiple myeloma
Sponsor Award Number: SU2C #RT6162
Supporting Agency: STAND UP TO CANCER
Name of PD/PI: June Role: Co-Investigator
Agency Contact: Michael Stewart; mstewart@su2c.org
Primary Place of Performance: University of Pennsylvania
Performance Period: 02/01/2019 - 11/30/2022 Level of Funding:
Time Commitment: 1.44 cal
Overlap: None

Project Title: Metabolic Reprogramming of the CAR-T Cell Epigenome
Project Goals: We will develop next generation therapies with CAR T cells, involving innovative combinations of metabolic as well as epigenetic modifiers of the aforementioned checkpoint switches and genetic technology to be tested in rigorous preclinical models
Sponsor Award Number: N/A
Supporting Agency: ALLIANCE FOR CANCER GENE THERAPY
Name of PD/PI: June Role: Co-Investigator
Agency Contact: Main Site; info@acgtfoundation.org
Performance Period: 09/01/2019 - 01/21/2023 Level of Funding:
Time Commitment: 0.36 cal
Overlap: None

Project Title: Engineering the next generation of T cells
Project Goals: The purpose of this U54 is to employ immuno-engineering principles to design more durable, accessible, and less toxic immunoprevention and immunotherapy strategies. The focus of our U54 entitled “Engineering the next generation of T cells” is on developing next-generation gene-editing or modification of immune cells to improve persistence in vivo, control and manipulate the immune system to reduce off-target toxicities and enhance anti-tumor effectiveness of adoptive cell therapy
Sponsor Award Number: 1-U54-CA-244711-01
Supporting Agency: NCI/NIH/DHHS (NATIONAL INSTITUTES OF HEALTH)
Name of PD/PI: June Role: Co-Investigator
Agency Contact: Manda Richards; manda.richards@nih.gov
Performance Period: 09/25/2019 - 08/31/2024 Level of Funding:
Time Commitment: 1.2
Overlap: None

Title: ***University of Pennsylvania Clinical Trial Site Application for Kidney Cancer Research Consortium Award***
Major Goals: Aim 1: Design innovative clinical trials for the KCRC; Aim 2. Accrue at least 25 patients per year to KCRC trials; Aim 3. Perform translational research on samples obtained from KCRC trials.
Project Number: UT MDACC Status of Support: Active
Source of Support: Department of Army
Name of PD/PI: Haas Role: Site PI
Sponsor Contact: Amie Bunker; amie.d.bunker.civ@mail.mil
Primary Place of Performance: University of Pennsylvania
Project Period: 9/15/20-9/14/24 Total Award Amount: Person Months .36 cal

Pending Support

Project Title: Overcoming CAR T Cell Dysfunction
Project Goals: overall hypothesis a variety of T cell intrinsic and T cell extrinsic mechanisms of resistance prevent effective checkpoint therapy and adoptive T cell transfer antitumor efficacy in most patients with solid tumors. We will use the principles of synthetic biology to engineer T cells that are resistant to the resistance mechanisms that we and others have identified
Supporting Agency: NCI/NIH/DHHS
Sponsor Award Number: N/A
Name of PD/PI: June Role: Co-Investigator
Agency Contact: N/A
Performance Period: 12/01/2022 - 11/30/2027 Level of Funding:
Time Commitment: 5.4 cal
Overlap: None

Project Title: Developing Engineered Cell Therapies for Metastatic Castrate Resistant Prostate Cancer to Increase Efficacy and Decrease Toxicity
Project Goals: to develop next generation immunotherapies with engineered T cells and to translate this research into new therapies with curative potential to address the unmet medical need for patients with metastatic castrate-resistant prostate cancer
Sponsor Award Number: N/A
(mCRPC).Supporting Agency: PROSTATE CANCER FOUNDATION
Name of PD/PI: June Role: Co-Investigator
Agency Contact: N/A
Performance Period: 01/01/2023 - 12/31/2025 Level of Funding:
Time Commitment: 2.4 cal
Overlap: none

Previous Support

None