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Title: Academy of Kidney Cancer Investigators Dean Award

PRINCIPAL INVESTIGATOR: Brian Rini

Contracting Organization: Vanderbilt University Medical Center, Nashville, TN

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14. ABSTRACT The CDMRP/KCRP Academy of Kidney Cancer Investigators (ACKI) fosters the development and commitment of early career kidney cancer investigators through provision of the raw materials and structured mentorship for focused, sustainable, and ultimately independent success. A Dean and advisory panel of relevant experts has been established and the first class of mentor/mentee pairs has been admitted to the Academy. The annual in person meeting occurred prior to the November 2021 Kidney Cancer Association Annual Meeting which provided feedback on all mentees projects. Quarterly AKCI meetings were held virtually for project status updates, input from the entire group as to ongoing issues, barriers and how to overcome them and future directions. In addition, monthly didactics with relevant topic experts outside of AKCI are ongoing and have provided rich and complementary RCC translational topics. <u>Significant academic output has already been realized through this structured virtual academy.</u>					
15. SUBJECT TERMS None listed.					
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1. Introduction:

The CDMRP/KCRP Academy of Kidney Cancer Investigators (ACKI) was established as a non-traditional method to foster the development of early career investigators in renal cell carcinoma-focused research. The inaugural Dean's award and the corresponding awards to the mentor/mentee pairs established the foundation of this Academy. The first year saw a kick-off meeting to gather all relevant parties and focused on refining the submitted projects of the mentees. Significant improvements/changes were made to projects. My role of the Academy Dean has been to facilitate and enrich the provision of the raw materials and establish the framework to ensure continued progress towards the mutual goal of eliminating kidney cancer. I established a diverse advisory panel with broad expertise across laboratory and clinical RCC realms which has facilitated the career growth of the mentees through regular feedback. I have revised my advisory panel in response to the mentees projects and requirements to include more basic science/translational expertise with the addition of Drs. William Kim and Samra Turajlic.

2. Keywords: *AKCI, mentoring, renal cell carcinoma, mentor, mentees*

3. Accomplishments

	Accomplishments
Major Task 1: Establishment of SMART goals	
Initial virtual meetings to align AKCI members and provide feedback on scientific projects, goals and mentoring plan	Inaugural AKCI kick-off meeting held November 2020 with focused feedback to all mentees
First annual AKCI meeting held in conjunction with KCA meeting	Inaugural AKCI kick-off meeting held November 2020 with focused feedback to all mentees
Establishment of virtual mentoring platform (MentorcliQ)	Platform established and all AKCI members have access

Finalize goals for all AKCI participants	Mentees submitted revised SMART goals after meeting
Major Task 2: Ongoing education, goals/progress	
Monthly virtual interactive meetings	Monthly didactics ongoing
Ongoing assessment of progress towards goals, barriers, strategies to overcome barriers and refinement of goals, including ongoing MentorcliQ use	Quarterly AKCI meetings with all members and advisory board held
Annual AKCI meeting	Held November 2020 and November 2021
Meeting including KCRP staff	Held November 2020 and November 2021
Major Task 3: Collaboration	
Assignment of advisory board member as secondary mentor to one AKCI early career investigator	Ongoing
Establishment of DUA/MTAs across AKCI institutions	Individual agreements are accomplished per specific projects.
Integration of AKCI members with CDMRP Consortium Award institutions	Ongoing
Major Task 4: Deliverables / SMART goals	
Abstract annually to at least one major relevant meeting	See below for accounting of deliverables
First author, peer-reviewed publications	
Peer-reviewed funding for laboratory-based investigators or industry funding for clinical trials/translational work	
Participation in multiple clinical trials and named Principal Investigator	
Establishment of a collaborative project with at least one AKCI member/institution	
Invitations to speak at other academic medical centers	
Membership and active participation/leadership in 1-2 national or international societies	

What was accomplished under these goals?

As noted above, all required meetings for the AKCI as intended for year 1 have occurred. These meetings provided a forum for mentees to present their updated research plans and significant feedback and refinement of plans occurred. The table below outlines the suggested quantitative metrics for AKCI members and the achievements to date. All of the achievements listed below are at least partially attributable to the mentee involvement in AKCI.

Stated Goals	Cumulative achievements of AKCI mentees
Submission of least 1 abstract annually to at least one major relevant meeting (e.g. ASCO, AACR, GU symposium, KCA) annually	16 RCC abstracts submitted to major meetings
An average of 2-3 first author, peer-reviewed publications annually	13 total first- or last-author publications
At least one podium presentation at a national	7 podium presentations at national meetings

meeting annually	
Securing either peer-reviewed funding for laboratory-based investigators or industry funding for clinical trials/translational work	23 peer-reviewed grants submitted / 4 funded
Establishment of a collaborative project with at least one AKCI member/institution within the first two years, and 2-3 collaborative projects over the course of the award	4 collaborative projects initiated
Invitations to speak at other academic medical centers (e.g. Grand Rounds; average 1-2 invites/per year)	9 talks at other academic centers
Membership and active participation/leadership in 1-2 national or international society committees over the course of the award	Active participation in 8 societies

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

The didactic series that has begun offers mentees the ability to interact with recognized experts in the RCC field and hone relevant skills. Further, opportunities for presentation of their work (quarterly AKCI meetings, presentations at the annual KCA meeting) are critical to continued professional development.

How were the results disseminated to communities of interest?

The mentees report their findings through publications and presentations as above. Also, new mentees present their projects annually at the KCA meeting.

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

The ACKI will continue its quarterly meetings and didactic series. Further growth of AKCI membership will also contribute to a more robust RCC community to refine projects and goals of the mentees.

4. Impact

What was the impact on the development of the principal discipline(s) of the project?

The AKCI has established the framework for a functional, virtual academy with high-level academic output. Most notably, this growing Academy will serve to draw more early career investigators into RCC-relevant research to benefit patients and the broader RCC community.

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

5. Changes/Problems

Changes in approach and reasons for change

Change in Advisory Board for incoming 2022-2023 project year has been requested in response to the needs of the ECIs. Drs. David McDermott and Rob Uzzo will be rotated off and will be replaced by more basic/translational investigators, Drs. William Kim and Samra Turajlic. This change is being made due to the composition of the Academy. The new incoming members have skewed towards basic science projects, notably involving the molecular biology of renal cancer. Drs. Kim and Turajlic have extraordinary expertise in this regard. We are in process to finalize all the paperwork required for this chance to take place. With such a replacement in place, my advisory board will have the required expertise to fully serve the needs of the Academy members. I will continue to consider refinement to advisory board membership to suit the needs of the mentees.

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

Implementation of the MentorCliq mentoring software has been slow but have now begun using this software which will be a platform for AKCI member communication, posting of relevant materials such as recording of the Zoom didactics and publications, etc.

Changes that had a significant impact on expenditures: None

6. Products: Nothing to report

7. Participants & Other Collaborating Organizations

What individuals have worked on the project?

Please see below:

Name:	Brian Rini, MD
Project Role:	<i>PI</i>
Researcher Identifier (e.g. ORCID ID):	0000-0002-2212-080X
Nearest person month worked:	2.4
Contribution to Project:	<i>Dr. Rini oversaw all aspect of operation for the Academy</i>
Funding Support:	<i>CDMRP, NCI</i>
Name	Rebecca Renee Boster
Project Role:	<i>Administrative Assistant</i>
Researcher Identifier (e.g. ORCID ID):	N/A
Nearest person month worked:	1.0
Contribution to Project:	<i>Rebecca Boster is responsible for administrative support for the AKCI. This includes interaction with mentor/ECI pairs for travel to annual meetings, webinar set-up and operation and interfacing with MentorcliQ for any issues with the digital platform.</i>
Funding Support:	N/A
Name:	James Brugarolas, MD
Project Role:	<i>Chair of the SAB</i>
Researcher Identifier (e.g. ORCID ID):	<i>https://orcid.org/0000-0002-8575-499X</i>
Nearest person month	<i>0.6 month</i>

worked:	
Contribution to Project:	<i>As Chair of the SAB, Dr. Brugarolas actively participates in meetings of the AKCI leveraging his expertise to provide feedback to AKCI mentees. Dr. Brugarolas is also scheduled to participate in a joint panel about mentorship at the upcoming KCA meeting.</i>
Funding Support:	CDMRP, NCI
Name:	Robert Uzzo, M.D.
Project Role:	Advisory Board Member
Researcher Identifier (e.g. ORCID ID):	0000-0003-2398-6530
Nearest person month worked:	0.39
Contribution to Project:	<i>Dr. Uzzo has overseen surgical and specimen implications of ongoing projects and proposals and provided ongoing active mentorship to investigators.</i>
Funding Support:	N/A
Name:	Sumanta Pal
Project Role:	Subaward Principal Investigator
Researcher Identifier (e.g. ORCID ID):	https://orcid.org/0000-0002-1712-0848
Nearest person month worked:	0.48
Contribution to Project:	<i>Dr. Pal has served as an advisory board member and has been involved in establishing goals for Early Career Investigators and provide opportunities for successful completion of those goals.</i>
Funding Support:	N/A; funding support is provided from this award.
Name:	David McDermott, MD
Project role:	EAB Member
Research Identifier:	0000-0002-2675-5095
Nearest person Month worked:	0.48
Contribution to Project:	<i>Dr. McDermott supported the development of the Academy by attending regular meetings and advising junior faculty.</i>
Funding Support:	CDMRP, DOD, NCI
Name:	M. Celeste Simon, MD
Project Role	Advisory Board Member
Researcher Identifier:	000-0001-9106-447X
Nearest person month worked	0.48
Contribution to project	<i>Dr. Simon serves as an Advisory Board member, attending meetings, mentoring investigators and assessing progress</i>
Funding Support:	NCI, LUDWIG INSTITUTE FOR CANCER RESEARCH

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 below:

Brian Rini, MD

New

KC210158 (Rini) **began** 09/01/2022

Title: RNAseq-Based Biomarkers Identify Targetable Biologic Drivers of Kidney Cancer

Supporting agency: CDMRP

Performance Period: 09/01/2022 – 08/31/2025

Effort: 1.2 calendar months

Role: PI

New

KC210255/W81XWH-21-KCRP-CTA(Rini) **began** 9/01/2022

Title: OPTimal Treatment by Invoking biologic Clusters in Renal Cell Carcinoma (OPTIC RCC)

Supporting agency: CDMRP

Performance Period: 09/01/2022 – 08/31/2026

Effort: 1.2 calendar months

Role: PI

Ended

3P30 CA068485-25S2 (Pietenpol) **ended** 8/31/2022

Title: The COVID-19 and Cancer Consortium: NCI Administrative Supplement to P30 (CCSG)

Supporting agency: NCI

Performance Period: 05/01/2021–08/31/2022

Effort: 1.8 calendar months

Role: Co-Project Lead

James Bruqarolas, MD

Ended

1P50CA196516 **ended** 07/31/2022

Title: University of Texas Southwestern Medical Center SPORE in Kidney Cancer

Supporting agency: NCI

Period of Performance: 08/01/2016-07/31/2022

Effort: 1.2 CM

Role: PD/PI

New

W81XWH-21-1-0630 **began** 09/01/2021

Title: Leveraging digital pathology and deep learning to predict immunotherapy response

Supporting agency: CDMRP

Period of Performance: 09/01/2021-08/31/2022

Effort: 0.48 CM

Role: Co-Investigator

Sumanta Pal, MD

No changes in Active support

Robert Uzzo, MD

No changes in Active support

David McDermott, MD

New

W81XWH-21-0690 / KC200164 3 **began** 09/01/2021

Title: Therapeutic targeting of the HHLA2/KIR3DL3 axis as a novel immune checkpoint pathway in renal cancer

Supporting agency: CDMRP

Performance period: 09/01/2021-08/31/2024

Effort: 0.36 CM

Role: Co-Investigator

New

W8iXWH-21-0708 / KC200233 **began** 09/01/2021

Title: Angiotensin-(1-7) as a Novel Therapeutic Target for Renal Cancer

Supporting agency: CDMRP

Effort: 0.36 calendar

Performance period: 09/01/2021-08/31/2023

Role: Co-Investigator

New

R01CA258442-01A1101942-15 (McDermott) **began** 12/01/2021

Title: Clinical Characterization of Kidney Injury Molecule-1 (KIM-1) as a Biomarker in Renal Cell Carcinoma

Supporting agency: NCI

Performance period: 12/01/2021-11/30/2026

Effort: 1.80 CM

Role: PI

Ended

1R21 CA238053-02 **ended** 12/31/2021

Title: Tissue Based Predictive Biomarkers for Cabozantinib Therapy in Metastatic Renal Cell Carcinoma

Supporting agency: NCI

Performance period: 01/01/2019-12/31/2021

M. Celeste Simon, MD

New

Project **began** 08/01/2022

Title: Exploiting Limited Arginine Availability in Liver Cancer Tumor Microenvironments

Supporting agency: LUDWIG INSTITUTE FOR CANCER RESEARCH

Time commitments: 1.2 CM

Performance period: 08/01/2022-07/31/2025

Role: PI

8. Special Reporting Requirements: None

Appendices: None