

January 1, 2024

MEMO TO: Bradley E. Britigan, M.D.
 Dean, College of Medicine

FROM: Howard Fox, M.D., Ph.D.
 Senior Associate Dean for Research Development

SUBJECT: 2022-23 Annual Report of the Research and Development Committee

The following individuals served on the Research and Development Committee during the 2022-23 year:

Howard Fox, M.D., Ph.D. - Chairperson	Rebecca Deegan, Ph.D.
Michele Aizenberg, M.D.	John Dickinson, M.D., Ph.D.
Ann Anderson Berry, M.D., Ph.D.	Babu Guda, Ph.D.
Keely Buesing, M.D.	Brian Lowes, M.D., Ph.D.
Siddappa Byrareddy, Ph.D.	Daphne Ly, M.D.
Keely Buesing, M.D.	Roslyn Mannon, M.D.
Leah Cook, Ph.D.	Kaleb Michaud, Ph.D.
Jesse Cox, M.D.	Kenneth Bayles, Ph.D. – Ex-officio
	Russell McCulloh, M.D. – Ex-officio

The Committee met at monthly scheduled meetings, held via Zoom as needed. The major items of business are noted below.

Ongoing Programs:

Joseph P. and Harriet K. Gilmore Distinguished New Investigator Award: The committee reviewed the application materials and curriculum vitae of seven nominated faculty. The committee selected two award recipients: M. Jana Broadhurst, M.D. Ph.D., Assistant Professor in the Department of Pathology and Microbiology, and Gargi Ghosal, Ph.D., Assistant Professor in the Department of Genetics, Cell Biology, and Anatomy. An in-person award presentation and symposium took place in person on April 13, 2023.

Dean’s Indirect Cost Program Grants: The Bridge Funding Program developed by the College of Medicine and the Vice Chancellor of Research Office continued throughout the year. Its purpose is to provide critical support to established investigators threatened by an imminent lapse in research funding. Requests for \$50,000 - \$100,000 are considered. Members of the Research and Development Committee review the applications and recommendations are made to the Senior Associate Dean for Research Development and the Vice Chancellor for Research. For the 2022–2023-year Dr. Paras Mishra Ph.D. (Department of Cellular and Integrative Physiology) was awarded \$50,000 from the Dean’s Office, College of Medicine. Yu-Long Li

M.D. Ph.D. (Department of Emergency Medicine) was awarded \$50,000 from the Dean's office, and the VCR awarded an additional \$50,000 to Dr. Li.

Programs of Excellence – Physician-Scientist Training Program: This program supports development of translational/clinical investigators on our campus. The Physician-Scientist Training Program was developed to provide research-oriented residents/fellows or junior faculty the opportunity to develop careers in biomedical research. This program provides two years of funding to the recipient. The second year of funding is provided after the recipient submits a report and it is determined that he/she is making progress. Jamie Wilson M.D. Ph.D. (Neurosurgery) received \$100,000 in 2022-23 for his second year of funding. After evaluating nine applications, Chris Barrett M.D. (Surgery) was awarded \$100,000 in 2022-23 for his first year of funding and will receive \$100,000 in 2023-24 (contingent upon a successful progress report).

UNMC Skate-A-Thon for Parkinson's Fund: This program offers a \$15,000 award and provides funds for new ideas and in support of Parkinson's disease research and/or education in the Department of Pharmacology and Experimental Neuroscience or the Department of Neurological Sciences. For the year 2022-23, there was not an award given out due to insufficient funds.

Eugene Kenney Memorial Funds for Asthma Research: The program provides \$15-25,000 for one year of funding and the primary intent of this award is to support investigators in their efforts to obtain preliminary data for extramural funding for asthma research. For the year 2022-23, the committee only received one application for review, and approved Arpan Acharya Ph.D. (Department of Pharmacology and Experimental Neuroscience) for funding in the amount of \$15,000.

Mary G. and George W. White Fund for Medical Research: The program provides \$55,000 for one year of funding. This funding is intended to spark new, innovative ideas and to test theories so that data can be collected that will lead to sustainable extramural funding (e.g. NIH). Projects should push the limit of breakthrough thinking and go outside the constraints of "safe science." For the year 2022-23, the committee reviewed 12 applications and one award was given: one to Lynda Harris Ph.D. and collaborators So-Youn Kim Ph.D. (Department of Obstetrics and Gynecology) and Joshua Santarpia Ph.D. (Department of Pathology and Microbiology) for \$55,000.

Frances E. Lageschulte and Evelyn B. Weese New Frontiers in Medical Research: This program is intended for projects that explore innovative directions in medical science and offer the greatest hope for significant improvement in healthcare. For the year 2023-23, the committee reviewed eight applications and the award was given to Kaustubh Datta, Ph.D. (Department of Biochemistry and Molecular Biology) for \$50,000.

M.D. Honors Thesis Program: The Research and Development Committee received XX#XX Honors Thesis Proposals from medical students scheduled to graduate in the spring of 2024. After the proposals underwent reviews and achieved approval, the Scholastic Education Committee received a chance to review the submissions, all garnered enthusiastic approval. There were nine final Honors Theses submitted for approval by medical students who graduated in May 2023 – Haris Akhter, Aubree Ford, Drew Gerber, Bailey Hassman, Cassie Huang, Amanda Lang, Lauren Nun and Brianna Shaw. Once the final theses gained approval by the Research and Development Committee, the Scholastic Education Committee also reviewed the final theses and provided their approval.

COM Medical Student Summer Research Program (MSSRP): In 2023, this program was available to rising M2s and entering M1s. It is designed to provide students within the College of Medicine the opportunity to enhance their ability to seek out information and to analyze and apply it to the solution of a defined problem. The student spends 8 weeks in their research endeavor and spends a significant number of hours (40/week) working on their research project. The Research and Development Committee received proposals from incoming medical students and current medical students. Notably, 93 applications were received and reviewed. Given the educational and research mission of the College of Medicine, all the proposals gained approval for funding. In all 92 students accepted our offer to complete research through the MSSRP. Funding for the 8-week summer program (\$3,200 per student) is secured from various sources. For the summer of 2024, this program will be available to rising M2s.

College of Medicine Research Retreat: Asst. Dean for Research and Development Dr. Babu Guda worked with members from the R&D committee, in conjunction with administrator Jen Brady and administrators from the Great Plains IDeA-CTR, to hold a hybrid in person/virtual conference on October 17-18, 2022. 189 registrants (70 in person, 119 virtual) attended throughout the two days of programming. A subcommittee of the Research and Development Committee will plan and execute the fifth annual College of Medicine Research Retreat on during the Spring of the 2023-2024 academic year.

Grant writing assistance: The three-year contract with Hanover ended in August 2021, and was not renewed. Since then, we have partnered with the Great Plains IDeA-CTR on in person and virtual grant writing workshops. In the 2022-2023 fiscal year, Paul Casella, MFA, Consultant for University of Iowa Health Care, provided a half-day workshop for post-doctoral students. The GP IDeA-CTR also collaborated with the AtKisson Training Group which conducted 2 half-day workshops that focused on NIH grant writing skills for R and K grants.

Goals for 2023-24:

1. Information Technology is usually raised as the largest issue to resolve/improve. We will continue to work with the VCR office, RITO, and Nebraska Medicine to improve.
2. Informatics is a second issue, the use of biomedical data to lead to knowledge. This involves not only curation and harmonization of data, but it's use in a variety of ways including with methods of artificial intelligence and machine learning. Storage and access to these data sets is crucial. Dr. Guda will lead these efforts so that COM investigators understand how to access such data, and who has the expertise to help with the various steps.
3. We will conduct a needs survey to find out pain points in writing/submitting grants for extramural funding, and work to solve any problems.
4. Mechanisms to Increase the opportunities for residents and fellows to perform research will be examined.