

ABSTRACT: ELAM Institutional Action Project
Basics of in vivo imaging for underrepresented imaging community

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Collaborators: Dr. George Langford (Director, the Partnering to Advance Imaging Research for URM Scientists Program (**PAIR-UP**), Professor Emeritus, Emeritus Dean, College of Arts and Sciences, Syracuse University), Dr. Kurt Zinn (Director of Radiochemistry), Dr. Erik Shapiro (Director of the Imaging Core), Dr. Ashley Makela (MPI imaging), Dr. Christopher Contag (Director, Institute for Quantitative Health Science and Engineering), Dr. Kendell Pawelec (CT Imaging).

Sponsors: Office of Dr. Jabbar Bennet (Vice President and Chief Diversity Officer), office of the Dean of the College of Human Medicine (Dr. Aron Sousa), Precision Health Program.

Background and Significance

Underrepresented minority scientists are severely underrepresented in the biomedical research especially in imaging and its utilization for research (~2%). Limited awareness of imaging modalities, and access to them narrows the pipeline of diverse scientists leading to reduction in scientific advances and exacerbation of racial and ethnic health disparities. Thus, there is an unmet need to increase career opportunities in biomedicine and improve access for URM scientists to training in biomedical fields, specifically in imaging sciences.

Purpose

The purpose of this project is to introduce in vivo imaging to URM scientists conducting research in other areas to propel their science forward and to create enhanced career opportunities. Towards this objective, and in collaboration with PAIR-UP, we propose to establish a program that will serve as a catalyst for attracting underrepresented minority bench scientists and introducing them to the imaging field. This program will include an annual workshop comprising lectures covering the basics of in vivo imaging, and the hands-on sessions. URM attendees recruited through PAIR-UP will learn the advantages of in vivo imaging for their research and build connections to advance their careers. Overall, this IAP will help eliminate barriers impacting people of color, promote equity and achieve a more diverse biomedical community.

Methods/Evaluation Strategy

MSU and PAIR-UP conducted meetings with scientific and logistics teams. These teams set up the workshop schedule, identified and solved limiting logistical issues, and estimated the necessary human and material resources. Dr. Moore has reached out to university leadership and started fundraising to cover the costs of the imaging facility and welcome dinner.

Evaluated includes analyzing immediate impressions of participants from a survey after the training and assessing long-term impact at one and two years after the session. The latter will be measured by the number of new collaborations, submitted manuscripts and secured grants by the participants. This will provide a guidance for conducting annual workshops at MSU and will establish a solid foundation for growth.

Outcomes/Results to date

The schedule for the workshop has been completed and faculty and instructors have been recruited. Work on the logistics of the workshop is 80% completed. Fundraising for the workshop is 60% completed. Confirmation of leadership participation has been obtained (Dr. Jabbar Bennet, Vice President and Chief Diversity Office and CHM Dean Aron Sousa). Flyer production and student recruitment by PAIR-UP will start in May 2023. The workshop is scheduled for October 3-6, 2023.

Discussion

The program is designed to increase the use of imaging by URM scientists through opening the door to this mechanism. Organization of such programs requires leadership skills and active recruitment of faculty and acquisition of funds. Our efforts to date demonstrate our ability to build a foundation for successful completion with an impact on the careers of the URM participants.

Conclusion

We expect the increased participation of URM scientists in the imaging field. It is also expected that the project will increase CHM visibility and competitiveness in academic medicine and help dissemination of our knowledge and experience to other institutions in Michigan and beyond.