The Wake Forest Institute for Regenerative Medicine (WFIRM) has been awarded a new National Science Foundation (NSF) grant to engage undergraduate students each summer in highly collaborative, team-based research at the interface of engineering and biology in challenging areas of tissue engineering and regenerative medicine (TERM) each summer.

Based on the strength of WFIRM’s long-standing Summer Scholars program, the new NSF REU site will focus on enhancing participation and interest of under-represented minority (URM) groups, women, first generation students, veterans and non-traditional students attending 2- and 4-year universities with limited access to TERM research. The NSF and the Department of Defense have both identified TERM research as high priority areas. TERM is a highly interdisciplinary field involving a diverse array of participants with science and engineering backgrounds, including molecular and cellular biology, bioengineering, chemical engineering, mechanical engineering, biotechnology and materials science.

The Summer Scholars program is unique in that students are placed into an interdisciplinary, team-based approach to TERM research. The program also boasts open spaces where faculty mentors and the entire WFIRM research team collaborate, allowing for simultaneous exposure to TERM research projects beyond the students’ own individual research projects.

The students’ experiences are supplemented with additional program elements and education on the research process, hands-on instrumentation, workshops on bioethics, responsible conduct of research, effective oral and written communication, professional development and career opportunities topics. All students present their research findings several times over the summer and in oral and poster format at a final research day event. Opportunities to attend and present at local and national meetings are also strongly emphasized. The WFIRM team has a robust track record of publications and presentations with undergraduate co-authors. To further increase program impact and sense of community, interns also participate in non-research and outreach activities in partnership with URM organizations, providing forums to discuss implications of STEM advances to the larger society, while fostering networking with other students, engineers, scientists, educators and businessmen.

“A significant challenge in TERM is developing the next generation of science and engineering experts, who are cognizant of the interdisciplinary challenges and approaches needed to solve TERM problems,” said Joan Schanck, MPA, WFIRM Academic Research Program Officer and who oversees educational programming. “Engineers need to understand the biological dimensions of their work to advance their own engineering knowledge and interact knowledgeably with biologically trained counterparts and vice versa.”

Applicants can apply online at: www.wfirm.org. Deadline for applications is January 15, 2018.

Questions?
Email us at summerscholar@wakehealth.edu or contact Joan Schanck by phone at 336-713-1201.

NSF Grant Recognizes Successful Wake Forest Institute for Regenerative Medicine (WFIRM) Summer Scholars Program with new REU Site Award

---

1 NSF Grant Award #1659663; Engineering New REU Approaches to Challenges in MultiTERM; A. Atala (PI), J. Schanck (Co-PI); Project Period: 10/01/2017 – 09/30/2020