Institute for Regenerative Medicine

Summer 2019 Program Call for Applications
New NSF Research Experiences for Undergraduates (REU) Site
At The Interface of Engineering and Biology = WFIRM REU Program

Engineering New REU Approaches to Challenges in MultiTERM
NSF REU Award #1659663; PI: Anthony Atala, MD; Co-PI: Joan F. Schanck, MPA
E-APPLICATIONS OPEN: November 30, 2018
APPLICATION DEADLINE: January 4, 2019
$5,000 stipend and housing allowance

Overview: This new REU program at the Wake Forest Institute for Regenerative Medicine (WFIRM) engages 10 undergraduate students each summer (2018-2020) in highly collaborative, team-based research at the interface of engineering and biology all focused on challenging areas of tissue engineering and regenerative medicine (TERM). With focus toward enhancing participation and interest of under-represented minority (URM) groups, women and non-traditional students attending 2- and 4-year universities with limited research, first generation and veterans, REU students engage in TERM research simultaneously identified as high priority by NSF and DOD.

Undergraduate students will be engaged in highly collaborative, team-based research at the interface of engineering and biology in challenging areas of tissue engineering and regenerative medicine (TERM). The NSF and the Department of Defense have both identified TERM research as high priority. Scholars will focus on four challenging areas: 1) biomaterials, 2) cell sources, 3) vascularization and 4) enabling technologies such as cell delivery devices, 3D bioprinting and tissue bioreactors.

Unique Aspects of the MultiTERM REU Program:
• Interdisciplinary mentored research with prominent TERM researchers addressing real-world clinical needs
• Students are placed within an interdisciplinary, team-based research environment
• Collaboration with primary faculty mentors, co-near peer secondary faculty mentors, graduate and post-doctoral fellows and the entire WFIRM research team
• Exposure to TERM research projects beyond the students’ own research focus
• Exposure to Biofabrication Technologies and Introduction to Translation (cGMP/GTP Cell Process, etc.)
• Opportunity for oral and poster presentations throughout the summer, culminating in a final Research Day Podium and Poster presentations
• Attendance to and presentation opportunities at local and national meetings
• Robust track record of publications/presentations with undergraduate co-authors

Student Experience Highlights:
• Additional program elements and education on the research process
• Skill transference/hands-on exposure to modern instrumentation and techniques
• Workshops on bioethics, responsible conduct of research, effective oral and written communication, professional development and other career opportunities
• Social and Community-Building activities to highlight STEM advances
• Networking with students, prominent scientists, engineers, industry and government collaborators, educators and community leaders.

“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 who oversees educational programming.

Applications accepted at: https://school.wakehealth.edu/WFIRMSummerScholars
Deadline: January 4, 2019
Questions? Email summerscholar@wakehealth.edu or contact Joan Schanck, 336-713-1201