SC EPSCoR/IDeA

RESEARCH FOCUS ON DR. STEPHEN FOULGER

In 2016, Dr. Stephen Foulger of Clemson University received a $6 million NSF EPSCoR Research Infrastructure Improvement Track-2 award to expand the uses of the method that allows experimenters to activate individual neurons or groups of spatial and temporal control, by flashing light on them. In this project, a system will be developed to allow the use of low-dosage X-rays, rather than visible light, as the activating signal.

The project includes multiple opportunities to involve students, especially members of under-represented minority groups and is conducted in collaboration with researchers from the University of South Carolina. Agreements are in place to host students from Winthrop University and Northern New Mexico College, which serve highly diverse student populations, in existing summer research programs at research-intensive universities.

PROJECT TITLE
RII Track-2 FEC: The Creation of Next-Generation Tools for Neuroscience – Noninvasive Radioluminescence Approaches to Optogenetics

AIM
The aim of the project is to extend the uses of the experimental method of optogenetics, which, since its introduction in 2005, has had a transformative impact on neurobiology.

AWARD ABSTRACT
https://www.nsf.gov/awardsearch/showAward?AWD_ID=1632881

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