NSF AGEP-Transformation: Frontiers in Research and Academic Models of Excellence Project Summary

The Center for Inclusive Education and Stony Brook University, in collaboration with the Office of Educational Programs at Brookhaven National Laboratory presents this competitive renewal application for the AGEP Transformation Frontiers in Research and Academic Models of Excellence (AGEP-T FRAME). This proposal builds on the lessons learned from the assessment and evaluation outcomes of AGEP-T FRAME, as well as the insight gathered from the projects' social science research component, to further develop and refine the collaboration's goal: Moving forward, AGEP-T FRAME will seek to increase participation of underrepresented researchers in careers that engage with Federally funded research Centers. This more narrow focus is in response to the recent National Center for Science and Engineering Statistic's data report on the demographics of postdoctoral trainees at Federally funded research Centers (https://www.nsf.gov/statistics/2017/nsf17301/) This will achieved through continuing to grow the number of underrepresented persons in postdoctoral traineeships and graduate facility usage at within the Department of Energy, through both the continued direct funding of postdoctoral traineeships at Brookhaven National Laboratory and Stony Brook University, as well as the connecting of Stony Brook University's advanced dissertating scholars to the user facilities at Brookhaven National Laboratory and across the Department of Energy complex.

This revised goal will be accomplished through five broad objectives:

- Continuing funding of Postdoctoral Trainees at Stony Brook University and Brookhaven National Laboratory (15 in total). Professional Development training and preparation will include a comprehensive teaching experience at Stony Brook or one of our collaborators, Suffolk County Community College and Farmingdale State College, as well as a formal set of future faculty preparation seminars and workshops
- 2) Work through new recruitment partnerships and venues that connect directly with underrepresented doctoral scholars in STEM who may not have considered career paths that engage with the National Laboratories as a potential professional direction.
- 3) Design and Implement trial efforts to address issues of "chilly climate" and weakened STEM identity experienced by underrepresented graduate and postdoctoral scholars as expressed in the information gathered through AGEP-T FRAME's social science research project. Efforts will include mandatory completion of seminars in implicit bias awareness and tools to reduce unconscious bias in teaching, mentoring, and leadership as well as an in-depth mentoring workshop designed specifically for developing an effective mentoring relationship between Research Advisor and Postdoctoral Trainee.
- 4) Develop and execute an advanced 'near peer' mentoring network that connects our advanced dissertating FRAME fellows with underrepresented postdoctoral trainees at Stony Brook and Brookhaven National Laboratory to build supportive, constructive relationships focused on promoting completion of the dissertation and consideration of diverse career opportunities
- 5) Provide active and direct individualized career placement assistance for doctoral and postdoctoral trainees at institutions within our collaboration and well as through partnerships with other relevant organizations.