2016

Annual Report: Fiscal Year 2015-2016

Office of Research and Economic Development, Florida International University

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External Grant Awards’ Performance

During fiscal year 2015-2016, award actions received totaled $116.4M, the number of award actions received increased by 9%, and the number of proposals submitted increased by 7%. While the value of award actions had a slight reduction, more award actions counted towards research expenditures—in the last fiscal year there were two large awards that did not convert to research expenditures. Nevertheless, FIU continues to focus on strategic faculty recruitment in order to continue its expected growth path into designation as Preeminent. Notable increases in external funding include awards to the Chaplin School of Hospitality and Tourism Management, College of Communication, Architecture + The Arts, College of Business and the College of Arts, Sciences & Education. Centers and institutes received $16.9M in award actions during FY 2015-2016—3% less than the previous fiscal year. Notwithstanding, there were noteworthy increases for the Extreme Events Institute (EEI), Gordon Institute for Public Policy and Citizenship, Southeast Environmental Research Center (SERC), Latin American and Caribbean Center (LACC), Applied Research Center (ARC) and Center for Research on US Latino HIV/AIDS and Drug Abuse (CRUSADA).
Research Accomplishments

FIU realized several impressive accomplishments during fiscal year 2015-2016:

- Received the R1: Doctoral Universities—Highest Research Activity designation from Carnegie.
- The Wall of Wind’s (WOW) became one of seven centers in the nation to receive the NSF Natural Hazards Engineering Research Infrastructure (NHERI) designation.
- FIU received its single largest NIH award ever ($12.7M) to conduct a national landmark study on substance use/abuse and brain development in youths.
- The Applied Research Center (ARC) received a $20M grant from the Department of Energy (DOE) to focus on environmental clean-up and the DOE-FIU Science and Technology Workforce Development Program. The latter builds a pipeline of minority scientists and engineers specifically trained and mentored to enter the DOE workforce in technical areas of need.
- CRUSADA received a $9.5M endowment from NIH NIMHD for the FIU Health Disparities Initiative.
- Achieved $171M in research expenditures in FY 2016, surpassing the 2016 goal by 3%.
- FIU researchers filed 70 invention disclosures, 60 patent applications (35% and 50% increase, respectively), and received 11 patents.
- The StartUP FIU Empower Program was finalized and began in Fall 2016—the program received over 100 applications from students, faculty, and staff, and admitted 19 teams.
- FIU received its long-awaited MRI machine that will be used by many studies, including the ABCD project, which supports 19 research sites across the US with approximately 10,000 children. In its first year of operation, FIU’s ABCD site involves 13 faculty and creates 16 additional jobs.
Collaborations and Partnerships

♦ IMAX selected FIU’s Wall of Wind (WOW) for an upcoming movie on hurricanes. In a live experiment, FIU’s WOW blasted hurricane-force winds on a scaled down model home. The experiment was conducted to show the difference between a house with hurricane resistance features and one without. The house without hurricane resistance attributes began to fall apart at 140 mph winds. IMAX’s visit put the spotlight on WOW’s wind engineering researchers, whose work ensures buildings and structures are built to withstand hurricanes and keep people safe.

♦ NSF awarded FIU $5M to establish an interdisciplinary center—the Center for Aquatic Chemistry and the Environment—CACE. Leveraging FIU’s expertise in chemistry, biogeochemistry, hydrology, genomics, ecology, public health, ecotoxicology, computer science and engineering, researchers will develop and implement an innovative program for FIU students interested in science, technology, engineering and math (STEM) fields. CACE researchers will improve understanding of environmental contamination in water resources and design remediation strategies.

♦ FIU and Pressure BioSciences, Inc. (PBI) entered into a formal collaborative research and development agreement to use FIU’s forensic experience and expertise to develop an improved rape kit test method based on PBI’s PCT platform in order to reduce the rape kit testing backlog.

♦ The Federal Emergency Management Agency (FEMA) partnered with FIU to provide local community leaders with the knowledge and tools to assess and improve their capabilities to prevent, mitigate, respond to, and recover from climate impacts, including sea level rise, drought and wildfires, heatwaves, floods, powerful storms, and other hazards.

♦ A collaborative team from Bascom Palmer Eye Institute and FIU developed a novel visible-light OCT technology for imaging rhodopsin. A study, supported by the National Institutes of Health, reported that VIS-OCT technology accurately measured rhodopsin distribution and functionally imaged rod photoreceptors in the retinas of rats.