

UC Merced: Fostering Research and Education at the Center for Cellular and Biomolecular Machines Undergraduate Research Fellowship Program

Petia Gueorguieva

Direct, University of California Merced, USA

Carrie Kouadio

Executive Director, University of California Merced, USA

Ayesha Boyce

Associate director, Arizona State University, USA

Roberto Andresen Eguiluz

Assistant Professor, University of California Merced, USA

Metzli Montero

Graduate student, University of California Merced, USA

Abstract:

The United States National Science Foundation-funded CREST Center for Cellular and Biomolecular Machines (CCBM) Undergraduate Research Fellowship Program was established in 2016 at the University of California, Merced (UC Merced), a designated Hispanic and Minority Serving Institution. CCBM provides research opportunities and professional skill development workshops to undergraduate students. This program supports UC Merced's mission of teaching and research and aims to cultivate an inclusive scholarly community. The program consists of i) Academic Year and ii) Summer Research activities, with the main goals of exposing scholars to research and refining professional skills, such as oral, written, and graphical technical communication. In these programs, a combination of direct and indirect assessment methods is utilized to identify program strengths and weaknesses, to continually improve program activities. In eight years, the program has supported 176 fellows, of which 74% are students from groups traditionally underrepresented in STEM. Motivated by the success and student diversity of our program, we present an overview of our work and share best practices in leading undergraduate research and education. We discuss program components and outline positive impacts of activities on student participants. Discussion of our evaluation strategies and specific results is also discussed in the presentation.