

# BUILD PODER: Race/Ethnicity and Biomedical Education

## NATIONAL INSTITUTES OF HEALTH



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## Why Did We Create This Innovation?

### Inspiration

- ◆ Health disparities persist despite years of targeted intervention and support; diversity in the workforce leads to innovation in the laboratory
- ◆ Inequities in student successes in biomedical sciences means that some voices are not at the table
- ◆ Faculty and students require a bridge to communicate respectfully and to imagine a different future where passions are inflamed to resolve health disparities

### Mission/Goals

- ◆ Based on Critical Race Theory, BUILD PODER addresses race and intersectionalities head on by providing a curriculum directed at transparency, respect, and correcting historical abuses of science
- ◆ BUILD PODER unites students and faculty around biomedical research questions, contextualizing and developing questions based on social justice themes
- ◆ BUILD PODER aims to build a workforce that thinks creatively about social problems and is well-trained to carry out and disseminate research at the highest levels

### Closing the Achievement Gap

- ◆ Supporting students who are traditionally under-represented in the biomedical sciences with funding, advanced education, professional development, and community
- ◆ Developing a campus culture of curiosity, openness, and respect to develop clear and inviting messages for biomedical and, ultimately, all students to meet their potential

### Theory/Evidence/Research

- ◆ Critical Race Theory (Derrick Bell, Danny Solorzano, two leaders)
- ◆ Our culture is embedded so deeply in a racist past that we cannot acknowledge it without support; we attempt to reveal and learn new practices of interaction around race

## What is the Innovation I/We Created?

### Who

- ◆ Pis: Gabriela Chavira, Carrie Saetermoe, Crist Khachikian, Maggie Shiffrar
- ◆ Cohort 1: 22 sophomores, 15 juniors
- ◆ Cohort 2: 25 sophomores, 25 juniors
- ◆ 6 Colleges, 27 departments, 120 faculty mentor pool
- ◆ 27 current faculty mentors
- ◆ Research Partners
  - ◆ UCLA, UCI, UCSB, UCSD, Claremont Graduate School
- ◆ Six Community Colleges
  - ◆ LAVC, LAPC, LAMC, ELAC, PCC, SMC
- ◆ Annenberg Foundation grant  
Community College Transfer Specialists

### What

- ◆ Student Research experiences in biomedical research laboratories
- ◆ Wrap-around student support: tutoring, student lab/workspace, coordinating with financial aid office, priority registration, UCS stress management,
- ◆ Advanced Research methods courses
- ◆ Professional development courses: getting in and surviving graduate school
- ◆ Faculty mentor training
- ◆ Faculty support for grant-writing
- ◆ Writing additional grants to fill-in what's missing

### How

- ◆ By providing students and faculty with specific skills, community, and a perspective on how power works its way into the scientific enterprise
- ◆ CRT-focused student training curriculum: on understanding and dealing with microaggressions, implicit bias, stereotype threat, and moving beyond discrimination
- ◆ Creating a community of support which includes faculty mentors, PI/PD, administrative staff, and peers

*"I don't consider myself to have just one mentor. I consider all the graduate students in my research lab as mentors. My lab mates have been a support group that push me to strive in my research and academic goals."*  
- Luis, biology major

## What Impact Does the Innovation Have on the Achievement Gap at CSUN?

### Real Student Impact

*"If I had to sum everything into one reason, I would say BP is important to me because it's my second family. An ideal family provides guidance, support, and friendship and BP has provided me with all of these. When I look at this past year, I've presented at two conferences, created my first conference poster, and was accepted to my first summer research program out of state. I definitely don't think I would have been able to achieve the same accomplishments this past year if it weren't for BP."*  
- Anna, biochemistry major

*"Never in my life would I have imagined that I would be able to work this closely with the very population that I have always wanted to help so early on in my career. I am grateful for the knowledge that the BP staff have given me this past year. Prior to commencing this program, I had no knowledge about what a vitae or GRE were. Thanks to this program, I feel better prepared for graduate school due to the training and support that the program has given me. Furthermore, it has also exposed me to the value of teamwork. I would have never been able to come this far without the support that everyone has given me."*  
- Sally, community college, psychology major

*BP has made me realize the potential I have, boosting my self-confidence. Growing up I want to say I was really shy, but BP as helped me open up and put that fear to the side by requiring me to present at conferences, develop interviewing skills, and meeting all these amazing faculty and staff members."*  
- Jorge, psychology major

### Markers of Positive Impact

- ◆ Demystifying the graduate school process
- ◆ Increased self-confidence, self-concept
- ◆ Research Identity formation
- ◆ Student retention
- ◆ Student entry into summer research programs
- ◆ Student awards and presentations
- ◆ Student confidence and productivity
- ◆ Student entry into doctoral programs
- ◆ Students enter research careers in biomedical fields
- ◆ Student-faculty bridges through common CRT framework and curriculum
- ◆ Faculty grant and manuscript productivity increases
- ◆ Faculty research moves toward health disparities and equity

### Critical Race Theory

- ◆ "In American higher education, race and racism are imbedded in the structures, practices, and discourses that guide the daily practices of universities."
- ◆ "CRT in higher education challenges the traditional claims of meritocracy, objectivity, colorblindness, race neutrality, and equal opportunity."
- ◆ "In the field of higher education, this framework analyzes race and racism in both a historical and a contemporary context using interdisciplinary methods."
- ◆ "The application of a CRT framework in the field of higher education requires that the experiential knowledge of people of color be centered and viewed as a resource stemming directly from their lived experiences."
- ◆ "In higher education, these theoretical frameworks are conceived as a social justice agenda that struggles to eliminate all forms of racial, gender, language, generation status, and class subordination."  
(Solórzano, Villalpando, & Osuerga., 2005)

## How Could This Impact More CSUN Students?

### How Could This Be Scaled?

- ◆ Institutional analysis and change
- ◆ Creating more opportunities to be involved in research experiences across all departments and colleges.
- ◆ Receive financial aid before dropped from classes
- ◆ Cultural change around respect and non-hierarchical communities of learning
- ◆ Student-led competitions for research funds with faculty support and guidance
- ◆ Broader training of faculty and staff around matters of race, dialogues within and across units
- ◆ Campus coalition around student research training across disciplines, sharing of resources and energies
- ◆ Centers built around student research
- ◆ Greater external funding for center grants around student research
- ◆ Creating a culture of mentoring across the university
- ◆ Valuing mentorship in RTP process
- ◆ Creating a summer jumpstart program for novice students to prepare them for working in research labs across fields.

### Future Partners

- ◆ A dream collaboration would look like a wrap-around program that fulfills all the academic needs of students. Partnerships we are currently working on:
  - ◆ Amgen
  - ◆ AT&T
  - ◆ Ford Foundation
  - ◆ Kaiser Foundation