







Building Infrastructure Leading to Diversity (BUILD) Program



Supporting students on their successful pathway to biomedical research

www.pdx.edu/exito

The EXITO Model: Matching Scholars in long-term developmental research learning community placements

A centerpiece of the BUILD EXITO program is the opportunity for Scholars to gain research experience as contributing members of Research Learning Communities (RLCs) headed by leading researchers.

- RLCs engage undergraduate students in meaningful research activities on externally-funded, faculty-directed studies across a range of health-related fields.
- RLCs vary in structure and composition, often including an investigator who collaborates with other colleagues, such as faculty co-investigators, fellows, post-docs and graduate students.
- Scholars are embedded within these mentor-rich communities in paid internship placements to work as part of the research team and spend concentrated time working during the summer and academic year to observe, learn and contribute to important research projects.



MEET A RESEARCH LEARNING COMMUNITY



The Mackiewicz lab consists of modern-day explorers of the molecular world and architects of nanoscale materials. They focus on the development of nanostructured materials for applications that relate to human health, the environment and energy. EXITO has helped Dr. Mackiewicz to develop stronger mentorship skills that enabled her to fully support URM students interested in a scientific career. She has also been able to help other EXITO mentors by sharing mentoring and research approaches with them and learning from their stories and successes.

What motivates RLC mentors?

At OHSU, out of 37 respondents, **100%** stated that increasing the diversity of their lab was a key reason for participating in EXITO.



MEET OUR SCHOLARS

Sulema Rodriguez started stuttering at six years old which eventually led her to study the brain processes and potential epigenetic components of stuttering. She has traveled to schools all over Oregon to speak talk about her experience as a stutterer and **her love for scientific research**. "Growing up, I thought science was only attainable by a select few. Through great mentors and volunteering, I have gained confidence and I feel like it is possible for me. I believe that outreach has the ability to cultivate diversity...making science accessible to everyone, regardless of who you are."

Maria Dizon transferred to PSU from Northern Marianas Community College. "As an island girl from such a small place, science opportunities were scarce. I didn't know this was possible. I now research brain development and neurobiology at Oregon Health & Science University. I am a scientist!"

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s Assessment of Capacity for Mycelectic Control of the Mi Prosthetic Limb after Targeted Muccle Reinnervation usin Virtual Reality Environment f Savyer Smith MD, Albert Chi MD

Badground: For many amputes, coverage impact prosthetic intelabilition and who lechniques and more advanced technique impacts have yet to biolarly solitod. <u>Objective</u>: To evaluate the performance What if Really based Module Prosthetic Modelectic: Control (ACMC) in the amputese who have undergone tare <u>Outcomes</u>: (1) Determine the en accurately and functionally ber Heather Hamilton had just begun pursuing neuropsychology when she was hit by a car and wound up in the trauma ICU at OHSU. She now works in a lab at OHSU led by Martin Schreiber, M.D., chief of trauma, critical care and acute care surgery and one of the doctors who saved Heather's life in 2013 said, "Heather is a fabulous example of the power of a mature trauma system, which spans all the way from the prehospital setting to recovery after trauma," said Schreiber. "I feel motivated to work hard because these people believe in me," Heather said. "It's just changed everything."

A LOOK AT THE NUMBERS



Students placed in 153 different research teams

403 peer, faculty, and research mentors matched with students

60 scholars authoring 90 peer-reviewed scientific publications

156 scholars giving 353 presentations or posters at scientific conferences.

"Thanks to EXITO, I feel confident to call myself a female scientist and researcher something I never imagined I would be able to say. I am now educated, supported, and fully prepared to achieve every goal that I have set my mind to. I have had the most incredible life experiences because I took the chance to move somewhere new, and EXITO was there to support me every step of the way."

- Ariane Audett (EXITO Alumnus)

PSU, EXITO, AND OHSU PARTNERSHIP







Partnership Highlights

Oregon Clinical & Translational Research Institute (OCTRI) is a catalyst for scientific collaboration, translation of biomedical advances into the community, innovation, and research growth. Their mission is to improve human health by enhancing clinical and translational research.

We Are Healers is a non-profit initiative featuring stories of American Indian health professionals. They aim to inspire American Indian youth to envision themselves as dentists, nurses, pharmacists, physicians, etc. – all through stories of Native role-models. Through a wide reach and national partnerships, they are able to connect American Indian students with Native-centric programs proven to provide successful academic enrichment.

The Northwest Native American Center of Excellence at

OHSU is working to comprehensively and sustainably address the health care needs of all people by increasing the Native American voice in the U.S. health professions workforce. They work to recruit, train and retain American Indians and Alaska Natives into health professions, train tomorrow's health professions workforce in American Indian and Alaska Native health issues, and enhance and expand tribal-academic partnerships in education, research, and service.

"EXITO was a great experience for me to understand how programs can provide a critical introduction to students from underrepresented and underserved backgrounds to research-intensive experiences, complete with the education and training needed to succeed in a biomedical or bio-behavioral career. I was grateful to be a part of the program's development and implementation, especially at the beginning when there were lots of questions about how to make this program effective and meaningful to the students partaking."

-Marguerite Matthews, former OHSU postdoctoral fellow and EXITO staff now a Policy Fellow at NIH, in the Division of Biomedical Research.

Oregon Health & Science University RLCs

Anupriva Agarwal, PhD Jennifer Barton, MD Raina Croff, PhD Blair Darney, MPH, PhD Melinda Davis, PhD Matthew Drake, MD Damien Fair, PA-C, PhD Alex Foster, MPD, MD Erick Gallun, PhD Melanie Gillingham, PhD Beth Habecker, PhD Emily Henkle, PhD, MPH Monica Hinds, PhD Holly Hinson, MCR, MD Willi Horner-Johnson, PhD Sonnet Jonker, PhD Sarah Karalunas, PhD Bory Kea, MD, MCR Marissa Kellogg, MD, MPH Allison Lindauer, PhD Laurie King, PhD, PT Todd Korthuis, MD, MPH Nora Gray, PhD Derek Lam, MD Miranda Lim, MD, PhD Kristin Mackiewicz Seghete, PhD Martina Mancini, PhD Lisa Marriott, PhD Bonnie Nagel, PhD Suzanne Mitchell, PhD Ryan Olson, PhD Angela Ozburn, PhD

Cynthia Perry, PhD, FNP-BC Andrew Riley, PhD Melanie Fried-Oken, PhD, CCC/Sp Sandra Rugonyi, PhD Jon Purnell, MD Trauma Research Lab Steven Shea, PhD Rebecca Skalsky, PhD Eric Simpson, MD, MCR Amala Soumvanath, PhD Peter Stevger, PhD Olena Taratula, PhD Alan Teo, MD, MS Jeff Tyner, PhD Anna Wilson, PhD Kerri Winters-Stone, PhD Randy Woltjer, MD, PhD Melissa Wong, PhD Katharine Zuckerman, MD, FAAP Jing Xu, PhD

Portland State University RLCs

Karlyn Adams-Wiggins, PhD Daniel Ballhorn, PhD Jennifer Blakeslee, PhD, MPH, MSW Deanna Britton, PhD Mitch Cruzan, PhD Justin Courcelle, PhD Amy Donaldson, PhD Suzanne Estes, PhD Gerasimos Fergadiotis, PhD Linda George, PhD Andrea Goforth, PhD Melissa Haeffner, PhD Alex Hunt, PhD Dirk Iwata-Reuyl, PhD Jun Jiao, PhD Maria Kapantzoglou, PhD Sarah Key-DeLyria, PhD Ericka Kimball, PhD, MPH, MSN Deborah Lutterschmidt, PhD Marilyn Mackiewicz, PhD Eric Mankowski, PhD Megann McGill PhD Brooke Napier, PhD Christina Nicolaidis, MD, MPH Roberto Orellana, PhD, MPH, MSN Mary Oschwald, PhD Jason Podrabsky, PhD Rahul Raghavan PhD Dora Ravmaker, PhD Steve Reichow, PhD Olyssa Starry, PhD Samuel Sennot, PhD Dara Shifrer, PhD Erin E. Shortlidge, PhD Martin Swobodzinski, PhD Carolyn Quam, PhD Jeffrey Singer, PhD Ken Stedman, PhD Christof Teuscher, PhD Anne Thompson, PhD Eric Wan, PhD Mark Woods, PhD Heyeoung Woo, PhD

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