

A photograph of three people (two men and one woman) standing in a modern, multi-story building hallway with large glass windows and a high ceiling. They are engaged in a conversation. The woman on the left is wearing a black top and blue jeans. The man in the center is wearing a patterned sweater over a blue shirt and khaki pants. The man on the right is wearing a brown blazer over a yellow shirt and dark pants. A large potted plant is visible on the right side of the hallway.

COMMITMENT TO

DIVERSITY AND INCLUSION

IN BIOMEDICAL ENGINEERING

 **PURDUE**
UNIVERSITY

Weldon School of
Biomedical Engineering

SECTION ONE

WHO WE ARE

Fostering diversity within the Weldon School and the values we believe.

SECTION TWO

WOMEN IN BIOMEDICAL ENGINEERING

Celebrating our rich history in supporting current and future women engineers.

SECTION THREE

RESEARCH & INNOVATION

How we're developing new solutions and tackling global challenges.

SECTION FOUR

CULTURE OF COLLABORATION

The spirit of collaboration, discovery and persistence that drives us.

We celebrate

the diverse lived-experiences of our students, postdocs, faculty, and staff, and provide opportunities and training for everyone to achieve their full potential.

We at the Weldon School of Biomedical Engineering are committed to promoting an inclusive environment.

We actively strive to educate ourselves on the many different ways that systematic exclusion and inequalities present themselves, to recognize and eradicate exclusionary practices, to call out discrimination when we see it, to humbly learn from our missteps, and to commit to building a safe and equitable climate where our faculty, staff, and students can thrive.

STRONG WOMEN LEADERSHIP HELPS BUILD *FUTURE LEADERS*

Every one of our students' small steps lead to a giant leap forward in improving lives. Here, students pursue research in their areas of interest, partnering with a diverse group of illustrious faculty, getting the real, hands-on experience and critical skills to truly make a difference.

We're particular proud of our women faculty leaders who are helping shape the future of biomedical engineering. Our all-star line up includes awardees of NSF Early Career, DARPA Young Faculty and NIH New Innovator awardees, as well as a Moore Inventor Fellow, just to name a few accolades.

Purdue has a storied history of supporting women in the field of engineering. In fact, we were the first university to start a Women in Engineering Program (WIEP). Established in 1969, WIEP has helped grow the overall enrollment of women in the College of Engineering from less than one percent to the current 26 percent. To date, the College of Engineering has granted more than 10,000 engineering degrees to women, thanks in large part to the WIEP's efforts.

We're proud of the fact that as of Fall 2022, 53% of all Weldon School students are women.



FIRST UNIVERSITY

TO START A WOMEN IN ENGINEERING PROGRAM

(1969)

4

WOMEN NSF EARLY CAREER AWARDEES

WHO ARE CURRENT WELDON SCHOOL FACULTY

2ND NATIONWIDE IN PRODUCING

WOMEN UNDERGRADUATE ENGINEERS

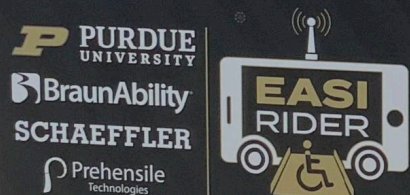
ASEE (2021)

MOORE INVENTOR FELLOW
DARPA YOUNG FACULTY
AWARDEE

NIH DIRECTOR'S NEW
INNOVATOR (DP2) AWARDEE

WHO ARE CURRENT WELDON SCHOOL WOMEN FACULTY

*EASI RIDER – an autonomous vehicle
that incorporates universal design
features to accommodate people with
physical and sensory disabilities*



\$1 MILLION

INCLUSIVE DESIGN CHALLENGE

U.S. DEPARTMENT
OF TRANSPORTATION

THE SPIRIT OF INNOVATION THAT *GUIDES US*

Rich history of innovation

Since the day it was founded, Purdue University has been developing solutions to the problems the world faces. And today, the Weldon School of Biomedical Engineering is building on that legacy of innovation. Our faculty and researchers have invented:

- implantable cardiac defibrillators
- acoustic guidance systems for clinical tubes and catheters
- controlled-release devices for the delivery of drugs
- bioscaffolds for wound healing and tissue repair
- image reconstruction algorithms for CT systems

10+ MILLION

PATIENTS WORLDWIDE IMPACTED BY

OUR INNOVATIONS

Leader in assistive technology

Approximately 20% of the population has some type of disability that can lead to mobility, sensory, cognitive, or psychological impairments, which may be improved by some type of assistive technology. The potential for individual impact to help people live more independent lives inspired the creation of **Efficient, Accessible and Safe Interaction in a Real Integrated Design Environment for Riders with disabilities (EASI RIDER)**.

Brad Duerstock, professor of engineering practice in the Weldon School of Biomedical Engineering, led the team of researchers who won the \$1 million prize in the U.S. Department of Transportation's Inclusive Design Challenge. The project offers an integrated inclusive design that involves multiple elements necessary for a traveler with a disability to enter the vehicle, maneuver and be seated, control all functionality of an AV, and disembark at the designated destination independently and safely.

The team plans on using the award to create a center on accessible design for future transportation and other technologies.

THE INCLUSIVE COMMUNITY WE'VE BUILT

A culture of collaboration

A collaborative mindset is in our DNA at the Weldon School. Our students, faculty, and staff know that we can only move ideas forward when we move as a team, and that an investment in the future is one we must make together. Here, collaboration happens in the smallest interactions and at the grandest scale.

An open, free exchange of ideas

This approach comes to life in spaces such as the Innovation Wing: a nexus for applied research, technology innovation, hands-on and online instruction, and outreach to corporate and healthcare partners. In this open-lab concept, we encourage researchers to pool their talents, share their discoveries and innovate together.

Mentorship matters

Feeling a sense of community and belonging has remained strong at the Weldon School, even with our 80% growth in the past five years. It's always a good idea to perform a temperature check, so we issued a Diversity and Equity Climate survey, where we identified several areas where additional support was needed. We expanded our Graduate Peer Mentoring Program so all first-year graduate students are matched with mentors to help them learn the inner workings of graduate school from more senior peers who have had the same recent struggles and hold critical insights to successes. Postdocs also have the opportunity to be both mentors and mentees within this program.

We also host an undergraduate resource center four times a week to provide support to our students. This is in addition to many college-wide resources such as the Engineering Mentor Corps, peer mentoring in the Women in Engineering program, and faculty mentoring for undergraduate research.



EMBRIO Institute PIs and students gather at Purdue for a summer workshop.

Purdue serves as the main site for the **Emergent Mechanisms in Biology of Robustness, Integration & Organization (EMBRIO) Institute**, which has received \$12.5 million from the National Science Foundation (NSF) over five years as part of the agency's Biology Integration Institutes (BII) program. The Institute uses AI to expand biology and engineering through exploring how cell signals are integrated to fight off invaders or activated to repair wounds, which are both essential to survive. Over half of the PIs of EMBRIO are women at Purdue and five other institutions, including Notre Dame, Indiana University, University of Pennsylvania, Morehouse College, and University of Puerto Rico at Mayagüez.

GREATER LAFAYETTE

#1 BEST PLACE FOR
CAREER
OPPORTUNITIES

SmartAsset, 2022

BEST OF THE BEST
UNIVERSITY FOR
LGBTQ+ STUDENTS

Campus Pride, 2022

JOIN US AS WE
MAKE THE

NEXT GIANT LEAP

IN BIOMEDICAL
ENGINEERING

purdue.edu/BME



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