

Developing Seeds that Thrive



Wendy Peer

Assistant Professor, Environmental Science & Technology

CURRENT RESEARCH

Understanding how plants grow to increase available food resources and restore the environment

Knowing that some seedlings will die during the growing process, farmers need to plant 20% more seeds to make up for the difference. Imagine if the additional 20% was unnecessary. Farmers would have a surplus of seeds they could use to grow more crops and thus provide a solution for the impending global food crisis. Dr. Wendy Peer, of the University of Maryland, studies how plants grow, especially seedlings, so that every seed that is planted can be used for food or environmental restoration. Falling under the umbrella of basic and applied research, Dr. Peer uses biology as a lens to study the intricacies of plants in order to address food crises and devastations, take care of our Earth, and provide preventative measures for our future. Backed by empirical and rigorous science, Dr. Peer's motivations for her work are "to feed the hungry and heal both people and the planet." Therefore with an incredible passion for making the world a better place paired with curiosity driven research, Dr. Peer's work is likely to have an incredible impact on the global community's future.

With the seedling stage being the most vulnerable stage of a plant's life, Dr. Peer and her team are looking at the reasons that ensure a seedling is able to successfully grow into a healthy adult plant by looking at what can go wrong. Perhaps most unique about her research is her approach. By looking at what happens in the cell, in the organism, and in the ecosystem, her wide scope is able to give a better picture to researchers of what is going on when these systems come together in real-world situations. With the many factors that influence a plant's successful growth including responses to signals like light, gravity, water, and nutrients...

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AFFILIATION



University of Maryland College Park Campus

EDUCATION

- Ph.D., in Biology , University of California, Santa Cruz
- B.S., in Chemistry (Honors) , California State University, Bakersfield
- B.S., in Biology (Honors) , California State University, Bakersfield

AWARDS

- Recipient 2014 TEAM Award, Purdue University
- Recipient Excellence in Research Award 2012, Purdue University
- Recipient American Society of Plant Biologists Top Authors 2004-2008
- Board of Advisors, New Phytologist 2013-2015
- Specialty Chief Editor of Frontiers in Plant Traffic and Transport 2012-present
- and 2 more...

RESEARCH AREAS

Environment, Ecology, Remediation, Cardiovascular

FUNDING REQUEST

Your contributions will support the continued research of Dr. Peer as she studies the integration of signals and adaptation to environmental change that affect seedling establishment. Donations will fund the necessary \$100-200K required for personnel and processes. Additional support would increase the capacity of Dr. Peer's team and the variety of projects they could research. In choosing to donate, you will play a role in addressing questions of sustainability in agriculture and environmental ecosystems.