



Record Number Of UNH Interns/Fellows Present Research At International Science Meeting

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DURHAM, N.H. – At this year’s American Geophysical Union meeting in San Francisco, which begins today, a record number of students from the University of New Hampshire’s signature Research & Discover program will present scientific findings to the estimated 15,000 participants gathered from around the world. The five-day AGU meeting, the largest of its kind, occurs annually in San Francisco where scientists share the latest research in the Earth and space sciences.

Four undergraduate and four first-year graduate R&D students will present results of original research in poster sessions alongside established scientists in various fields spanning the realm of geophysical topics from atmospheric science to volcanology. Seven of the eight students are lead authors for their presentations, with faculty advisors as co-authors. The Research & Discover internship-fellowship program is housed at the UNH Institute for the Study of Earth, Oceans, and Space (EOS).

“To have students presenting at AGU is testament to the fact that they are doing significant scientific research,” says ecologist George Hurtt of EOS and the UNH Department of Natural Resources. Hurtt also directs the six-year-old R&D program, which is a collaborative venture between UNH and the National Aeronautics and Space Administration’s Goddard Space Flight Center.

Having undergraduate and beginning graduate students present their research findings at so large and notable a scientific meeting as AGU, Hurtt emphasizes, means that students are being engaged in real research projects at an earlier-than-usual stage in their career, which is precisely what the R&D program was designed to foster.

Hurtt calls the program a “pipeline of opportunities” where students have a breadth of interdisciplinary research topics made available to them in an environment that very closely mirrors a graduate school experience. Moreover, the internship-fellowship opportunity occurs at a critical juncture in a student’s career – the transitional period from undergraduate to potential graduate student.

“To launch them on a solid career in science you’ve got to give them more than just a summer. You’ve got to show them an exciting path through what is arguably one of the most uncertain periods in their careers.”

Research & Discover begins with an intensive 10-week, class-free research internship at UNH

for rising college seniors and is followed by a second summer internship at the Goddard Space Flight Facility – the nation’s largest Earth science research enterprise. Qualifying students can then transition from the internship program to a two-year, full-time, graduate fellowship to either continue their research or branch into a new topic area.

First-year graduate student Katelyn Dolan is one of the R&D student presenters at this year’s AGU meeting. A UNH environmental conservation major, Dolan began as an R&D intern in her junior year and is now in the fellowship phase of the program. Dolan presented a poster at last year’s AGU meeting on research into potential effects of climate change on croplands in the pan-Arctic region. Her poster this year details research of an entirely different flavor – the analysis of historical forest regrowth using different types of satellite data.

Dolan is trying to interpret data from NASA’s Ice, Cloud, and land Elevation Satellite (IceSAT) to determine if it can be used to make informative and accurate measurements of forest tree heights, which could be used to help calculate terrestrial carbon budgets. This complex work could inform NASA’s designs to build and launch next-generation satellites.

As part of her summer internship at Goddard, Dolan participated in a planning meeting for ICESat II and talked with the scientists grappling with the very issues she was researching as part of their decision-making process.

“There I was, an undergraduate being part of this new horizon of science at NASA. It was amazing,” Dolan says. As with her AGU poster session at last year’s meeting, she looks forward to fielding questions from scientists about her work with the ICESat data and, in turn, posing questions to them as well.

Other R&D students participating in this year’s AGU meeting are Virginia Sawyer, Mimi Szeto, Erica Lindgren, Emily Glick, Jordan Goodrich, Haley Wicklein, and Jennifer Wurtzel.

Every year, UNH has a strong presence at the AGU meeting as measured by faculty, staff, and students attending and presenting, and scientific abstracts submitted. In the latter category, last year UNH ranked sixth in raw numbers, in the company of CalTech, the University of California, Berkeley, the Lamont-Doherty Earth Observatory of Columbia University, and others.

<http://www.eos.unh.edu/randd/index.shtml>

