



The [Office for Undergraduate Research](#) newsletter is published bi-weekly to share news about undergraduate research at UNC, relevant events, accomplishments of our students and faculty, and more. For additional information, please visit our website at

www.unc.edu/depts/our or email us at our@unc.edu.

July 11, 2013

OUR News and Events

OUR Blog:

- [Ellen Murray](#) talks about the beginning of her SURF research project on gender and math in the US and China.
- Sherifat Ademola reflects on [conducting research](#) on alcohol and its effects on the brain.

GRC Blog:

- [Rachel Norman](#) discusses undergraduate research in linguistics, slang and reality TV.
- Michelle Robinson [shares her experience](#) integrating undergraduate research in her course on LGBTQ Fiction and Film— including comic books, graphic novels, and creative writing.

OUR People:

- Meet incoming OUR Ambassador [Patrick Short](#).
- Next steps for recently graduated OUR Ambassador [Kelly Speare](#).

Other Events and News:

- UNC Undergraduates, if you have not yet responded to the [Student Experience in the Research University survey](#), please complete it by July 31. You could win a gift card or prize.
- On October 2, the [Council on Undergraduate Research](#) will host a [symposium](#) on “Developing a Comprehensive Undergraduate Research Program and Integrating Undergraduate Research into the Curriculum” will be held in Raleigh. The deadline to submit a poster abstract is July 22, 2013.

OUR News

Transitions at OUR:

Effective July 1, OUR says farewell to founding OUR Director and Associate Dean of Undergraduate Research Dr. Pat Pukkila and welcome to incoming OUR Director and Associate Dean of Undergraduate Research Dr. Krista Perreira.



Dr. Pat Pukkila



Dr. Krista Perreira

Meet Patrick Short '14, an Applied Mathematics and Quantitative Biology major with a minor in Chinese.



I began my undergraduate research experience at UNC working on a collaborative project between the Forest Group in Applied Math and the Bloom Lab in Biology on a mathematical model of the yeast mitotic spindle. Since then, I

Next Steps for Kelly Speare '13:



As an undergraduate, I strived for an interdisciplinary education with coursework in Biology, Marine Sciences, Oceanography, and Chemistry. I dove into research in the field of Marine Ecology and took every opportunity to design and execute my own research endeavors. Now, as a freshly minted UNC alum, I am conducting a research study at the Bermuda Institute of Ocean Sciences for the summer. I am interested in the effects of human and natural stressors on the recruitment and survival of juvenile corals. For this project, I am studying the effects of sponges on the settlement of coral larvae. Following my summer in Bermuda, I am traveling to Thailand where I will continue my dive education and begin my training as a divemaster. I plan to spend the next year traveling and diving before starting graduate school in 2014.



Photos:

Top: After using corals for experiments we use underwater cement to put them back on the reef.
Bottom: Mixing underwater cement in a sandwich bag while diving.

have worked on a wide variety of different research projects, most of them at the intersection of math and biology. Early in the summer of 2011, I worked with a small team of undergraduates to complete a survey project and impact evaluation for a microfinance organization in Peru. For the remainder of the summer, I worked as a Public Health Intern for [WarmHeart Thailand](#) creating an emergency medicine training curriculum and performing eye and ear screenings in local elementary schools. In the summer of 2012, I joined the Cook Lab at Oxford University. My work focused on gene-gene network structure under different cellular environments. I have continued this gene-gene network research under Dr. Mucha in the Math department at UNC through an independent study. As a member of the [DeSimone Lab](#), I have worked closely with an MD-PhD student and on the treatment of autoimmune diseases via nanoparticle delivery of therapeutics. I am incredibly interested in personalized medicine and the impact of clinical genome sequencing on healthcare. Undergraduate research at UNC has undoubtedly been one of my most formative and rewarding experiences and has contributed tremendously to my career interests.

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