



September 6, 2012

The [Office for Undergraduate Research](#) newsletter is published two times per month 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.

Announcements and OUR News

OUR Blog:

[Executive Branch of Student Government Prioritizes Undergraduate Research](#)

[The Big Picture: Summer Research Spotlight Focus on Jay Zhang](#)

GRC Blog:

[Out On the Water: Field Research in Marine Science](#)

[GRCs and Pedagogical Practice](#)

OUR People:

[Meet two OUR Ambassadors](#)

[Alumni Profile: Patty Kuo](#)

OUR Events:

The OUR September workshop, [Taking the First Steps](#), is next week. Don't forget to RSVP. And, save the date for the other informative workshops in our [Fall 2012 workshop series](#).

Other Events and News:

[Information Session: Getting Involved in Undergraduate Research in Biology](#)

[The Global Studies Faculty Student Partnership Fund supports undergraduate research.](#)

The [Journal of Student Research](#) is accepting submissions from undergraduate researchers. The deadline for the next issue is October 31, 2012.

Announcements and OUR News:

[Executive Branch of Student Government Prioritizes Undergraduate Research](#)

Student Body President Will Leimenstoll and other Executive Board Officers share their experiences conducting undergraduate research and their plans to highlight research opportunities.

[The Big Picture: Summer Research Spotlight Focus on Jay Zhang](#)

SURF recipient Jay Zhang studies asymmetric cell division in the Lieb Lab and acknowledges the importance of his mentor, Dr. Erin Osborne Nishimura, in helping to create a productive experience.

[Out On the Water: Field Research in Marine Science](#)

Watch this video blog of Dr. Marc Alperin's Maymester course.

[GRCs and Pedagogical Practice](#)

GRCs are invited to enter into conversation about pedagogical practices.

Meet two OUR [Ambassadors](#):

Sarbajeet Nagdas, senior double major in Chemistry- Biochemistry Track and Biology.

I do research for Dr. Richard Cheney's lab in the UNC School of Medicine's Department of Cell and Molecular Physiology on Myosin10. My research is



approaching Myosin10 related projects from a biochemical perspective. I have also done research in the Chemistry Department, working on surface chemistry and the effects of haptotactic gradients on cell.



Kelly Speare, senior Biology major, Marine Sciences and Chemistry minors.

My research experience has been in two fields of marine science, coral reef studies and marine microbial ecology. I am currently doing a meta-analysis to investigate whether coral species richness is related to a coral reefs ability to be resistant to disturbances and recover from disturbances. I am also working on a different project studying the impacts of the 2010 Deepwater Horizon Oil Spill on the microbial community living in deep-sea sediments. I am working to characterize the microbial community living in uncontaminated and oil-

contaminated sites.

NOTE: Kelly is spending the fall semester conducting research at the [Bermuda Institute of Ocean Sciences](#). Watch for her blog entries on the [OUR Blog](#).

Alumni Profile: Patty Kuo

We were delighted to receive the following note from [Patty Kuo](#), a 2008 SURF recipient who graduated in 2010:

"I wanted to let you know that I have published a paper that was partially funded by the SURF during my time at UNC. Thank you again for funding me - obtaining the SURF and using it towards my honors thesis research really solidified my interest in research and an academic career. "

We wanted to know more, and we thought you might too. Patty took a few moments to chat with us, and here's what we learned:

Patty wanted to conduct research because she was interested in learning about the biological bases of parenting behaviors. In a Biological Psychology class her first year at Carolina, she learned about the impact of oxytocin on mothers. This prompted her to seek a research opportunity. She turned to the [OUR Database of Research Opportunities](#) where she found that [Dr. Karen Grewen's](#) lab was looking for a student research assistant. Patty contacted the lab and was able to begin doing research for class credit.

The research project on mothers and hormones led Patty to wonder about the biological bases of father's parenting behaviors. She did a literature review and discovered that little research had been done on this topic. She applied for and received a [Summer Undergraduate Research Fellowship](#) to support her research and then managed the entire project, from recruiting her subjects and running them through the lab to writing up the findings as part of her honors thesis.

Now a doctoral student at the [University of Michigan](#), Patty began as a biopsychology student but moved over to developmental psychology so she could continue to focus on parenting



The Neurobiology of Paternal Behavior

Patty Kuo, Psychology
Faculty Advisor: Karen Grewen, PhD.
Dept of Psychiatry

behaviors. Her study is just the first step in an exploration of the links between infant behavior and how the parent's brain responds to that behavior. One possible future direction would be to explore whether fathers with psychopathology have different neural responses than the fathers she's studied thus far.

We asked about her biggest challenges. As an undergraduate, Patty "definitely felt more novice" as a researcher and it was sometimes difficult to find the right resources to get her analysis done.

Patty's advice to current undergraduates is to follow your own interests. Research is a very long road. As she notes, she started this project in 2008 and the results have just been published. When you seek out a research opportunity ask what kind of role you will have in the lab and what you'll be allowed to do. Patty likes to take the initiative and work independently; her advisor supported and facilitated her interests. Think about your own working style and how that will match the expectations of the lab.

Do you want to know more about Patty's work? Here's the citation for her [paper](#): Kuo, Patty X., Carp, Joshua, Light, Kathleen C., Grewen, Karen M. 2012. "Neural responses to infants linked with behavioral interactions and testosterone in fathers." *Biological Psychology* 91(2), 302–306.

The OUR Fall 2012 inaugural workshop series:

Taking the First Steps

Wednesday, September 12, 2012

5:00-6:30 p.m.

Greenlaw 223 (Donovan Lounge)

Are you interested in conducting undergraduate research? Are you curious about how to get started? Do you want to know more about the opportunities and resources available? Come and hear from student Ambassadors, OUR staff, and Liaisons for Undergraduate Research about their experiences, advice and guidance. There will be lots of time for Q&A!! SPACE IS LIMITED, so you must RSVP. Email Dr. Donna Bickford [dbickford@unc.edu] if you will attend.

Research Methodology Blitz:

All events from 5:00-6:30 – location TBA

- October 9, 2012** **Research Methodology: Oral History**
 Cosponsored by the [Southern Oral History Program](#)
- October 10, 2012** **Research Methodology: Primary Sources and Archival Research**
 Cosponsored by the [R. B. House Undergraduate Library](#)
 and [Wilson Library](#)
- October 11, 2012** **Research Methodology: Community-Based Research**
 Cosponsored by the [Carolina Center for Public Service](#)

And, watch for news about our **November 14, 2012** workshop!

Global Studies and Undergraduate Research

Content provided by Lara Markstein

In April 2012, the [Curriculum in Global Studies](#) launched the Global Studies Faculty Student Partnership Fund to facilitate dynamic interactions between Global Studies majors and Global Studies faculty. Joint and affiliate Global Studies faculty had the opportunity to submit global project proposals for undergraduate research assistant funding. Four proposals were selected for the summer of 2012. The curriculum then solicited research assistant applications from among its 800+ majors. The students selected by the faculty were awarded \$500 for the fifty hours we anticipated they would spend on the project over the summer.

We see this new initiative as a way of facilitating the very real desire that our majors have to be more closely involved with the exciting research done by our faculty.

The four projects chosen and students selected were:

Geographies of Global Healthcare: Constructing the “medical tourist” as an object of economic development with Dr. Nina Martin (Geography). Research Assistant: Bryanna Foote '13. Foote was excited to review scholarly and policy documents on the phenomenon of medical tourism, assist in choosing appropriate case studies, and help design a questionnaire for key informants with Dr. Martin, who emphasized how valuable a research assistant would be during the initial phase of research. Dr. Martin anticipates co-authoring an article with Ms. Foote and submitting it to the journal *Mobilities*.

Mapping Social Change Approaches: From the Southeast to the Global Justice Movement with Dr. Michal Osterweil (Global Studies). Research Assistant: Elizabeth Cooper '12. Cooper looked forward to developing her research methodology through assisting Dr. Osterweil with interviews with key organizers about organizational histories, data searches seeking to understand connections between groups and movements and developing a classification system.

International Investors and Government Policies with Dr. Layna Mosley (Political Science). Research Assistant: Anna Li '15. Li worked with Dr. Mosley to compile a database of relevant policy changes, using news reports as well as reports from various investment analysts. She also helped to assemble a set of data on the risk premiums charged for sovereign borrowers, information to be used to examine systematically the conditions under which government policy changes generate reactions among private investors. This research hopes to provide insight regarding the relationship between international investors and government policy decisions.

Impact of OUT LGBT elected officials on laws and policies with Dr. Andrew Reynolds (Global Studies and Political Science). Ali Evarts '14. Over the course of the summer, Evarts was particularly engaged in creating a table on transgender law around the world, allowing her to connect with and befriend contacts from Algeria to Belarus, an opportunity she claims is invaluable. "I feel so fortunate to be part of this historic research," Evarts recently said.

Information Session: Getting Involved in Undergraduate Research in Biology

Wednesday, Sept 19, 2012

6-7:30 PM in Coker 201

[Dr. Gidi Shemer](#)

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