April 26, 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:
- Ginnie Hench: HHMI Science Learning Communities Program Coordinator

GRC Blog:
- Adam Engel: A GRC on pedagogical practice and professional development
- Adam McCune: GRC and A Facilitator of the Remarkable Things the Students Can Do

OUR Programs:
- Learn about an HHMI-funded initiative for science education from Dr. Steve Reznick.
- It’s not too late to register for IDST195: Modes of Inquiry.

OUR People:
Meet three OUR Ambassadors.

OUR News:
- Chancellor Holden Thorp commemorated National Undergraduate Research Week.
- Seven Carolina students attended the ACC Meeting of the Minds Conference. Hear from two of them: Morgan Abbott and Chex Yu.

Events:
Reports from the Presymposium Workshop and the Celebration of Undergraduate Research.
New at the Celebration this year: Research Bingo!
OUR student staff member Chelsey Bentley talks about why she invented Research Bingo.
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Announcements and OUR News:
Ginnie Hench: HHMI Science Learning Communities Program Coordinator
Adam Engel: A GRC on pedagogical practice and professional development
- Adam E. talks about how he works with undergraduates in his role as a Graduate Research Consultant and what he’s learned from the experience.
Adam McCune: GRC and a Facilitator of the Remarkable Things the Students Can Do
- Adam M. talks about the variety of approaches he incorporates in working with undergraduates as a GRC.

Dr. Steve Reznick, Professor of Psychology and Associate Dean for First Year Seminars and Academic Experiences, describes UNC’s innovative HHMI-funded science education initiatives.

The Howard Hughes Medical Institute Science Seminar Program seeks to develop a series of collaboratively-designed seminars taught by postdoctoral fellows and graduate students with the explicit goal of enhancing science education and building our science community. These collaborations
begin in the context of a **First Year Seminar** (FYS) in which the postdoctoral fellow or graduate student serves as a **Graduate Research Consultant** and works with the instructor to create an FYS that is notably interesting and engaging.

The official role of the GRC is to help plan the FYS and to assist with developing and supervising research projects for the undergraduate students. These GRCs also participate in the Center for Faculty Excellence’s Future Faculty Fellowship Program to learn how to improve the educational experience of students. In a semester after the initial collaboration and additional training, the GRC becomes eligible to teach an HHMI Science Seminar under the close supervision of the faculty member with whom the GRC collaborated in the FYS.

Are you interested in learning more about research on campus? There are still seats available in IDST195, our **Modes of Inquiry** course. You’ll hear from professors across disciplines about their path to research, their burning questions, and the advice they have for you.

Meet three **OUR Ambassadors**!

**Bindhu Pamarthi** is a senior Political Science and Psychology Major.

My research deals with a south Indian population's modern attitudes toward consanguineous marital practices and knowledge of the associated health risks for offspring.

**Kinsey Richardson** is a sophomore Chemistry major and Spanish minor.

As a rising freshman, I began my research experience extremely early. Working in the chemistry department, I was a participant of the Duke Energy Bioscience Scholars (DEBS) program. My undergraduate mentor and I worked on a project called "Dye-Mediated Photo DNA damage." We were testing to quantify how much damage is caused when fluorescent dyes were added to DNA.

Last summer, I was a part of the **SMART** program. I did research in a Biophysics labs. The name of my project was "Gas-Sensing Nanowires." My research was to further the advancement of the "Electronic Nose Project." An array of these porous nanowires can work together to act like the human nose. They were specifically created to detect reducing gases, such as carbon monoxide. I will continue working on the project in the spring.
Carlie Sorosiak is a senior English and American Studies major.

Carlie was inspired by the eloquent and startling poetry of Natasha Trethewey, a mixed-race woman who grew up in the 1960s American South. As the recipient of a Summer Undergraduate Research Fellowship, Carlie spent nine weeks examining how Trethewey grapples with her mixed-race identity and attempts to recover marginalized and forgotten histories, the stories of people “erased,” left out and “buried.” Trethewey focuses especially on her mother, who was brutally murdered, and how her mother’s life represents a previously-untold and semi-forgotten narrative. Like a tender of graves, Trethewey writes poetry that keeps alive the memories of the past. Carlie utilized novels, psychological studies, photographs, interviews and even the archives at Yale University to conduct her research, and thoroughly examined how Trethewey builds monuments to historical truth. Carlie noted that the SURF project has been one of the most personally and academically rewarding experiences of her undergraduate career. She hopes to attend the University of Oxford next fall to continue her work in English studies, and she knows that her SURF research has helped her progress towards that goal.

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A Message from our Chancellor:

April 12, 2012
Dear Carolina community:

National Undergraduate Research Week is April 16–20, 2012. I am delighted that undergraduate participation in research on our campus is at an all-time high, thanks to the hard work by our undergraduates, mentorship by faculty, postdoctoral scholars and graduate students, and leadership from the Carolina’s Office for Undergraduate Research (OUR).

Please take this opportunity to visit the OUR website and plan to participate in the upcoming campus-wide Celebration of Undergraduate Research. Learn more about the Carolina Research Scholar Program, research-intensive courses, innovative research-exposure courses with Graduate Research Consultants, and other initiatives.

I am confident that Carolina undergraduates will continue to make important contributions to answering some of the defining questions of our time.

Sincerely,
Holden Thorp
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ACC Meeting of the Minds:

From March 30 - April 1, I traveled to Blacksburg, Virginia with six other UNC students to present my research at the ACC Meeting of the Minds Conference at Virginia Tech. Student representatives from each of the ACC schools presented on a diverse range of topics from a variety of disciplines. The ACC Meeting of the Minds Conference provided opportunities to network with individuals interested in research, present our findings in a formal setting to an audience with minimal background information on our specific topics of expertise, and learn from other undergraduates across the nation. I learned about archaeological excavations in the Moche Valley of Peru, the relationship between religiosity and...
alcohol use in college, integrating the Jamked Model into the health care system in rural China, and more. I had an excellent time exploring Blacksburg with other students from ACC schools in North Carolina, and the passion with which individuals at the conference spoke about their work was inspiring. The intersectionality of participants’ research, studies, and extracurriculars was fascinating, as most research involved tangible applications to solve some of the world’s most interesting problems that students executed in other areas of their university life.


On March 30th, I traveled with a group of UNC students to Virginia Tech, representing Tar Heels at the 7th ACC Meeting of the Minds Conference. The conference is a celebration of undergraduate research and I was very impressed with both the depth and diversity of the work done by my peers. The range of research topics range from health, physics, architecture, philosophy, music, religion, to interior design. I attended many presentations with topics drastically different from mine. One group from NC State talked about how they are redesigning a warehouse on their campus and showed their model. Another student from Virginia Tech presented on a modern interpretation of the Tango. By attending these presentations, I was exposed to topics that I did not have much knowledge before and got to talk to the presenters on their research processes and discoveries. I also tremendously enjoyed sharing my own work with others and have gotten some extremely valuable advice from my audience. I delivered an oral presentation during the health section of the conference and talked about integrating a community-based health model in India to the rural health system in China. It turns out that a student from Boston College also looked into this same model while working on his project in the Philippines. After my talk, the other presenters at the health section gave me a lot of suggestions on future research and potential methods I could explore. I’m in fact looking into some of those methods now to see how I can further develop my project this summer. Overall, I enjoyed the conference tremendously. It was a great experience both intellectually and socially!


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On April 12, 2012, the Office for Undergraduate Research offered a presymposium workshop for students scheduled to present platform talks or poster sessions at the Celebration of Undergraduate Research. Students had opportunities to practice interacting with poster presenters and to learn some best practices; those scheduled to present platform talks learned from Will Bosley about how to creative effective powerpoint presentations.

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The Thirteenth Annual Celebration of Undergraduate Research was a huge success! Undergraduate student researchers presented 139 poster sessions and gave 56 platform talks, a 40% increase in participation from last year.

Here is just a sampling of comments from Celebration attendees:

- “I was so impressed with what I heard and saw and I was especially impressed with the enthusiasm and knowledge of the students. Their responses to questions supported that they really knew their data, and yet did not hesitate to say “good question, I don’t know,” which I think is impressive for true scientists. I only wish there would have been time to attend more platforms and view more of the posters.” Tim Kuhn, Office of Human Research Ethics
- It was inspiring to see fellow undergraduates engaging in research ranging from chemistry to social psychology to social justice. Francis Wong, Roosevelt Institute.
- "The Celebration of Undergraduate Research is exceptional because it breaks down the walls between professors, students, staff, and the public. During my platform presentation, everyone in the room became both learners and educators by actively listening and discussing new lenses through which I could explore my results." Mallory Melton, 2012 SURF recipient and new OUR Ambassador.

And, this year for the first time, we asked attendees and participants to live tweet their experiences of the Celebration at #UNCCUR. Here are just a few examples from the Twitter feed:

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New this year at the Celebration of Undergraduate Research: Research Bingo. OUR student staff member Chelsey Bentley shares why she invented Research Bingo and the results.

When I attended my first symposium last year, I noticed a lack of interaction, which was one of the reasons I came up with research bingo this year. Few researchers were able to talk about their experiences, and there was not enough activity. I thought that if we created a game with a prize it would increase attendance, and the fact that participants had to talk to researchers in order to win made the idea come full circle. I presented the idea at an office meeting and everyone was really receptive; I just had to figure out who would donate prizes. I had never solicited donations at the university before, so I
just emailed stores on Franklin Street, and places on campus. I received such a great response. Kildare’s, Vespa, Playmakers, Carolina Dining Services, and the Morehead Planetarium & Science Center all donated goods towards the gift basket. Dr. Pat Pukkila donated $100 cash and a UNC Student Stores gift card as well, making the prize value total over $200. On the day of the symposium, I was a little nervous that no one would understand or play the game; but I was wrong. The submission box was overflowing by the second session of the symposium! I’m so happy that everyone enjoyed the game and students got a chance to share their research experiences.

Congratulations to our very first Research Bingo winner, Cara Arizmendi! Cara is a senior double majoring in Psychology and Women’s Studies with a minor in Spanish in the Professions. We at the Office for Undergraduate Research hope she enjoys her gift basket.

And more congratulations to the poster winners! Each year, people vote at the Symposium for the posters they liked the most; this year they voted using the Research Bingo card. The posters will be displayed in the House Undergraduate Library until graduation and then move to the 2nd floor display throughout the 2012-2013 academic year. This year the winners were: junior Biology major Sarah Anderson, senior Biology major Carlos de Castro, senior Psychology major Katherine Cullen, and senior Psychology major BreAnne Allen. Great work, poster presenters!

Would you like to provide support for the Office for Undergraduate Research? You can make a gift [here](http://www.unc.edu/depts/our).

The Office for Undergraduate Research
[www.unc.edu/depts/our](http://www.unc.edu/depts/our)

Where will your curiosity lead you?