Missouri researchers present in the nation’s capital

A pair of MU researchers tripped to Washington D.C. for the annual Research Experiences for Undergraduates Symposium this October, an event sponsored by the Council of Undergraduate Research. MU’s own Kalen Brown, from Columbia, Missouri, and Truman State University’s Gus Thies, from St. Charles, Missouri, presented their summer poster at the headquarters of the National Science Foundation.

The categories for the undergraduate presentations ranged from ocean sciences to cyberinfrastructure, and the Missouri duo presented their “Identifying Transcriptional Regulatory Sequences in Mammalian Genomes” under the biological sciences section.

According to their research abstract, the “purpose of the study was to use programming techniques to read DNA sequence files in order to organize and identify possible regulatory sequences in the human genome.” The team used C++ programming and data from the Ensemble Genome Browser online archive to create their program. Both students were mentored this summer by Dr. Gavin Conant, an MU professor in animal sciences and bioinformatics.

Participants in the poster session were competitively selected in an effort to showcase some of the best research from REUs across the country. MU Undergraduate Research Director Dr. Linda Blockus also attended and helped organize the event for CUR.

What’s going on around the office?

Office Director Linda Blockus and Assistant Director Mike Cohen tripped down to University of Central Florida as invited guests of the Florida Statewide Symposium on Undergraduate Research — but they didn't go alone. More than 30 Mr. Potato Head figures accompanied the team, though the toys had to ride in the luggage bay.

The potato heads were part of Dr. Blockus’ communication exercise for the administrators and faculty at the symposium: before the toys were hauled off onto the plane, they were put together in the most puzzling ways possible and photographed before being stripped down to their parts once again. Attendees at the symposium were broken off into pairs, and sitting back-to-back, one would attempt to describe the configuration of the potato head to their partner by looking at the photograph. Some potato heads proved more difficult to reconstruct than others.

The exercise is designed to illustrate the difficulties students can experience when entering a new environment, as communication is key in developing a collaborative research experience.

Dr. Blockus also gave the keynote seminar “Characteristics of Excellence in Undergraduate Research: Nurturing an Environment for Success.”
For MU junior Katie Hobbs, a research project is the chance to dive deeply into her passion. "I transferred to MU after my freshman year, one of the reasons was I wanted a different type of education. A Columbia native, Hobbs migrated to Millikin University in Decatur, Illinois, where she studied violin and vocal performance. "I always thought that research in English and the humanities was an interesting possibility," Hobbs says. "And I’ve always been interested in English literature. That was definitely the biggest thing.

After enjoying a year of the sights and sounds of her hometown, Hobbs was approached by Dr. Anne Myers of the English Department. Hobbs had taken one of her classes earlier that year, and Dr. Myers asked if she was interested in helping her on a research project. Hobbs says she still isn’t quite sure why Dr. Myers picked her out, but Hobbs ultimately said yes. It turns out that the research project is so large that Hobbs doesn’t even know how many other universities are involved in it. English departments across the educational spectrum are digitizing an architectural anthology over 200 years old called the Vetusta Monumenta.

Hobbs used a database called ECCO (Eighteenth Century Collections Online), a sprawling catalog of millions of pages of historic texts from the time period. Hobbs’ research project, a mere slice of the massive 18th century archive, was a city just north of London. When the corners of the Roman Empire stretched into Britain, the city was called Verulamium. After the English rebuffed their Roman invaders, the city adopted the name St. Albans. "My research is based around an engraving of a map that was drawn in 1721 of this city, and what I was doing was going through all these 18th century accounts of it to see how people would have perceived this city,” she says.

Hobbs’ put the research on hold when her literary passions took her to Ireland and England this summer in a study abroad program. "I got to watch a lot of Irish films and read Irish literature in the places it all came from, which was a lot of fun," she says. With MU’s sprawling laboratories and resources dedicated to the sciences, many students forget that the humanities have their own research to explore. To Hobbs, research has always been a possibility. "I guess I never thought of it that way," she says. "I always thought that research in English and the humanities was an interesting possibility. I think that enthusiasm is important — there’s always more things to be found out.”

Accepting nominations for the Jefferson City poster session

The MU Office of Undergraduate Research is seeking nominations for undergraduate students to share their university research and scholarly experiences with state lawmakers in Jefferson City. The deadline is Friday, November 14, 2014.

Last year’s event showcased the work of 20 MU students to Missouri legislators. The Spring 2015 event will continue to be a system-wide activity with space for 40-50 undergraduates from all four campuses of the UM system. The date will be announced shortly, but will likely be in early March.

The application is available at the Office of Undergraduate Research website at http://undergradersearch.missouri.edu/forums-conferences/capitol/index.php.

Applications can be sent to the Office of Undergraduate Research in 150 Life Sciences Center or at ugr@missouri.edu.

There and back again

a Hobbs’ tale

“I always thought that research in English and the humanities was an interesting possibility.”

-Katie Hobbs
Meet the researchers

Grace McNamee

We want you to get to know your fellow researchers better. We’ll be featuring undergraduate researchers in Q&As about what they’ve been doing!

Major?
English

Hometown?
Washington D.C.

Year?
Senior

As an English student, how did you get involved in research?
I came here to work with a specific professor, Dr. Devoney Looser. She assigned us a research project to do and she told me to present a poster instead, so I did. She no longer works here, but she actually pushed every single research project I’ve ever done.

And why did you become a research ambassador?
It forces me to learn a lot about the subject, and how to convey why I love the subject to somebody else. I think that’s a major thing that I’ve been forced to articulate my feelings about research, which I am not doing well right now. Generally I do okay at it [laughs].

What are you researching?
I am doing research for my thesis, which is going to be a 35-page research paper. It’ll be fun. I’ve written longer, my undergraduate research mentorship paper was 35 to 50 pages. It’s intense. The main thing is finding out how you’re going to make one argument stretch that far, and how you are going to set it up so people are going to follow you all the way to the end.

What have your past research projects been on?
18th century literature. Not all of them are on Jane Austen. My most recent one was on Jonathan Swift with Dr. William Kerwin in the English department.

What exactly do you research about these topics?
It varies. Jonathan Swift was kind of a present thing, because Dr. Kerwin is working on a collection of Swift’s poems, so it was a lot of researching historical background for the poems. For independent research projects, I tend to be very interested in social aspects. I’ve done motherhood, now I’m doing widowhood… just the treatment of the social world in the 18th century. The politics don’t interest me, it’s a very boring century politically.

So you would analyze the books themselves? Or the surrounding literature?
It depends on what you mean by just the books. The 18th century was a period of a lot of conduct novels, which aren’t really novels, they’re more like long sermons to women to stop doing what they’re doing. And so I’ve read a lot of those, and I’ve read some political tracts, and of course you read a lot of scholars’ opinions. There’s a huge scholarly conversation particularly around Jane Austen. You can’t start reading any of the novels for research without engaging with those scholars.

What’s it like to present at the Undergraduate Forum alongside mostly science majors?
It’s not that bad, most of my friends are science people instead of English people, so that kind of biases me. But it’s a lot harder to be taken seriously. I didn’t help myself, my first poster was pink, but to be honest, my stuff was often more interesting. People come up, and you can explain to them concepts of a gentleman in the 18th century much more quickly than you can explain to them about this nucleus — and that’s not to say this nucleus research isn’t incredibly important — it’s just to say, sometimes my projects have more sex appeal [laughs].

And it’s a bit easier to explain; that’s also why it’s not taken as seriously, because everyone is just kind of like “Oh, you read some books.” No, I didn’t just read some books.

And you were in England for a year?
Yes, I went to the University of Oxford. It was fabulous. It was the hardest thing I’ve ever done, but that’s okay, it was worth it.

It’s a really different system. You take two classes over eight weeks, and those classes meet once a week or every other week depending on the class, and in that time period, you are expected to read 16 books and push out a 10-page paper. So it’s nothing but free time, but “nothing but free time” that is also really intense.

What classes did you take?
Quite a range. Shakespeare, 18th century, Jane Austen, ancient Greek literature, Victorian history… what am I forgetting? Oh, modernism.

Were you doing research over there at all?
I was. I was doing the Jonathan Swift project. Oxford has one of the largest collections of Jonathan Swift papers, so Dr. Kerwin actually hired me while I was over there. I would go into the archives and look at the physical manuscripts and send pictures of them to him, essentially. I probably could have got a mentor but I was definitely much more on my own. It’s a fairly independent school system.

Grace serves as an Undergraduate Research Ambassador. Contact Mike Cohen (cohenME@missouri.edu) to apply to be an ambassador for the 2015-16 academic year.

What advice would you give to an English major on how to get involved in research?
It all depends on who you meet. What I managed to do right at the beginning was to meet a professor who was a fabulous mentor. Honestly, I would send them to places like the Fellowship Office and the Honors College and to the English department itself. I would say, tell them what you’re interested in and see who they know who is interested in that same thing. That’s what I did, and it made all the difference.
Be sure to keep up with us online.

We will be posting events and updates regularly on social media.

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@ugradresearchMU

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LSUROP apps open Nov 10th

Students conducting life sciences research can apply for the Life Sciences Undergraduate Research Opportunity Program (LS UROP) for both the summer program and 2015-16 academic year when applications open November 10.

Applications are due February 13.

For more information, visit the "Application Process" page on the LS UROP site:
http://lsurop.missouri.edu/programs/application-process.php

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about THE CONNECTION

The official Office of Undergraduate Research newsletter, The Connection, provides undergraduate researchers and faculty mentors with information regarding research-related events and workshops, as well as featured faculty mentors and student research projects at the University of Missouri. The Connection is published on the first of every month.

The publication’s goal is to connect undergraduate researchers from science and non-science disciplines across MU’s campus. Check out the newsletter’s monthly featured research websites and fellowships! Readers are welcome and encouraged to submit story tips and ideas. If you want to receive an electronic copy of the newsletter each month, email Joey Fening (jwfvyc@mail.missouri.edu) at the Office of Undergraduate Research.