

# Undergraduate Research and Creative Works

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**Our mission: to engage undergraduates in student-faculty collaborations that reflect individual, unique, scholarly and imaginative experiences which promote the development of new competencies, foster critical thinking, and**

**provide students with opportunities to add to the sum of human knowledge.**

## Pivot Workshop

On Wednesday, October 23, Students for Undergraduate Research Experiences (SURE) held a workshop to explore a new database available to High Point University students in order to search for grants, funds, scholarships and summer research experiences. The database is available to anyone on campus and contains many different kinds of opportunities for each and every student.

With search tools that

narrow the vast results one might find when using another software, Pivot gives one a less overwhelming number of scholarships, funds, and grants to sift through. Some examples of the filters available for use are *Undergraduate Student*, *Women*, *Government*, and *Minority* that narrow the search radius.

We are very excited to add this website to the list of assets available to High Point University Stu-

dents! The Office of Undergraduate Research and Creative Works is also hoping to host another Pivot review in the Spring.

To get started, visit [http://pivot.cos.com/funding\\_main](http://pivot.cos.com/funding_main) and start exploring! Note that if you do not have an account, the database only works on campus.



## Students Research Chemistry

Dr. Miller (Assistant Professor of Biochemistry), Dr. Fowler (Assistant Professor of Chemistry), and Dr. Knippenberg (Assistant Professor of Chemistry) are proud to lead three students (Jennifer Pearson, Alison Parker, and Rachael Redmond) who received a grant to go to the Southeastern Regional Meeting of the American Chemical Society (SERMACS) and then to the State of North Carolina Undergraduate Research and Creativity Sympos-

ium (SNCURS) in mid-November.

Senior Jennifer Pearson researched how the human transcription-splicing factor Tat-SF1 affects expression of insulin-related genes. The title of this work she submitted to SERMACS and SNCURS is titled *Tat-specific factor 1's Role in Insulin Signaling*.

Pearson hopes to attend graduate school to obtain a PhD in the field of biomedical re-

search after she graduates from High Point University. She began research to gain experience for her future plans.

Alison Parker, another senior, titled her work *Modification of Polysaccharides with Attachment of Iron Chelating Ligands*.

Rachael Redmond, a sophomore, researched the thermodynamic properties (like melting point) of different recyclable (*continued on p.2*)

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## Women In Mathematics

The weekend of October 26-27, 2013, six young women (four math majors, one actuarial science major, and one mathematical economics major) led by Dr. Jenny Fuselier (Assistant Professor, Department of Mathematics and Computer Science) attended the first annual



Left to right: Mallory McMahon, Kristin Giorgio, Andrea Perrault, Danielle Santos, Tierney Loughran, and Elizabeth Perkins

Southeastern Conference for Undergraduate Women in Mathematics, held at Clemson University. This conference is especially exciting for the fact that very few conferences in the nation focus on Women in Mathematics.

Our students saw 25 presentations from undergraduate students in the region and even more from first-year graduate students who gave presentations on research from their undergraduate years. There were also two main female mathematician speakers who presented to the entire conference and graduate school panel discussions. The topics of each presentation varied from pure mathematics, to applied mathematics, to mathematical models of cancer networks.

In response to such a well-planned conference, Dr. Fuselier says, "Our students were exposed to a variety of research topics and we are already looking forward to attending (and presenting) next year."

## Students Research Chemistry, *continued from page 1*

materials in her project *Measuring thermodynamic properties of recyclable materials*.

More specifically, she researched how these properties compare with the energy needed to break down certain materials. Redmond says that she began doing research after Dr. Altman gave a presentation to one of her classes her

Freshman year about undergraduate research. Rachel then asked her adviser, Dr. Fowler, how to get involved.

Dr. Knippenberg and Dr. Fowler got her started working on Chemistry research.

Students in any year can get involved and do research for any department.



State of North Carolina  
Undergraduate Research &  
Creativity Symposium



### Physical Therapy Researcher

High Point University Senior, Jennifer Johnson, received a grant to travel to and present at the 2013 North Carolina Physical Therapy Association Fall Conference on October 10-12 for her work in Physical Therapy Research.

Johnson's work titled, *Reported MCID Estimates of Hip Related Patient Reported Outcomes: A Systematic*

*Review*, focused on the reliability of the Minimal Clinically Important Difference (MCID) self-report score, usually achieved by giving Physical Therapy patients a questionnaire to test their progress. From the research with Dr. Alexis Wright (Assistant Professor, Department of Physical Therapy), they concluded that the MCID score should not be the sole criterion for determin-

ing progress. Physical Therapy and research are both passions for Johnson, and she hopes to attend Physical Therapy School after she graduates from HPU.

She is exceptionally thankful for the new Health Sciences School, the new Biomechanics Lab to aid her research, and for her mentor, Dr. Wright.



Johnson presents at BigSURS, May 2013

### Student Researches Cyberattack Problem

In her paper, *Anonymous: A Case Study of Hactivism and the Legal Response*, Senior Ryann Quigley attempts to tackle the problem with hactivism.

Hactivism is the unauthorized use of computers to promote hu-

man rights and that sometimes violates some ideas of privacy.

Quigley, along with her mentor, Dr. R. Scott Ingram (Assistant Professor, Department of Criminal Justice), studied the most well-known hactivist group, *Anon-*

*ymous*, to find ways to help the government confront these issues. Ryann also proposes, in the project, a reform to help this problem.

Because of her paper's success, Quigley was invited to the American Society of Crimi-

nology Conference this November 20-23.

### Biochemistry Researcher to Present in Nashville

Gavin Coombs, a High Point University Senior, did research in the field of Biochemistry.

Because of the success his project, *Localization of Kaposi's Sarcoma Associated Herpesvirus (KSHV) Small Capsid Protein and Characterization of Human Cytomegalovirus (HCMV)*

*Nuclear Egress Complex (NEC) in Sf21 Cells*, he has been invited to the Annual Biomedical Research Conference for Minority Students. This will occur in Nashville, November 13-16, sponsored by his travel grant from the URCW Office. As always, the Office of Undergraduate Research and Creative

Works is proud of our students!

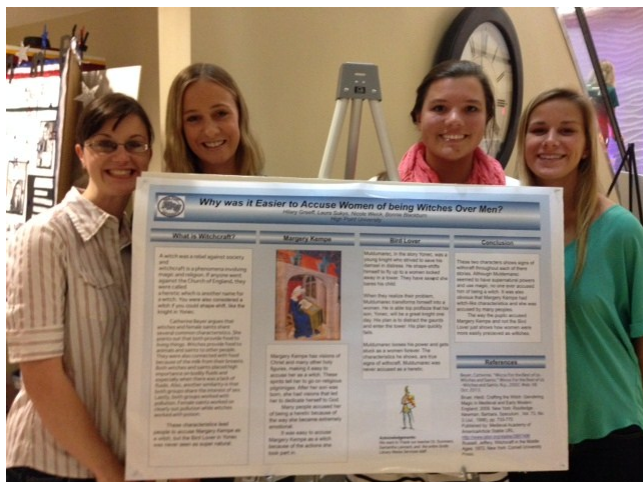


## Look What Students are Doing!

Name	Topic	Mentor
Andrea Perrault	Mathematical Biology (Using Differential Equations to Model Biological Processes)	Dr. Erica Zuhr
Alyssa Springer	A Comparative Study of the International Baccalaureate and Common Core State Standards Systems	Dr. Leslie Cavendish
Amanda Tzavaras	Psychology: Power	Dr. Deborah Danzis
Austin Mincey	Memory Inhibition (Homograph Processing)	Dr. Kimberly Wear
Brea Hampton	Biochemistry	Dr. Heather Miller
Jacqueline Simpson	Comparative Study of Executive Function in Animals and Humans	Dr. Joanne Altman
James Kizer	Feminist Cyberactivism	Dr. Jenn Brandt
Jennifer Johnson	Exercise Science: Clinically-Funded Research Studies	Dr. Alexis Wright
Jennifer Pearson	Effect of Knock-down of the Protein Tat-SF1 on Overall Expression of Genes Involved in Insulin Signaling	Dr. Heather Miller
Katelyn Long	Comparative Study of Executive Function in Animals and Humans	Dr. Joanne Altman
Katelyn St. Amand	Effects of Fitness Training Program to Help Combat Childhood Obesity	Dr. Alexis Wright
Kyle McRee	Pitching Durability in the MLB	Dr. Dan Tarara
Kyle Rother	LeAnne Howe's <i>Native, Interstate, and Global South</i>	Dr. Kirstin Squint
Kylie Foster	The Effect of Personality on Wellness in Dogs	Dr. Joanne Altman
Lindsay Owen	Fluency Intervention	Dr. Sarah Vess
Monica Johnson	Psychology: Apologies and Psychology: Tinker Toys	Dr. Deborah Danzis
Paige Ward	Testing a Work-out Program in Elementary-age Children	Dr. Alexis Wright
Taylor Patzwahl	Identifying Insects Captured from Various Biofuel Treatment Plots	Dr. Joshua Campbell

## WGS Event: Witches Hags and Huntsmen

Wednesday, October 30, some Women and Genders Studies (WGS) classes hosted a poster event on Women, Gender, and the monstrous. There were presentors on 42 posters and PowerPoint presentations. Here are a couple photos from the successful event!



Above: Justin Beard presented on Little Red Riding Hood in regards to Maturity and Sexual Health.

Left: Hilary Greef, Laura Serkys, Nicole Werck, and Bonnie Blackburn present on why it was easier to accuse women of witchcraft over men.

## Taking the Physics Department to New Heights!

Fall 2013, the Physics Division finally gained status as its own department in the College of Arts and Sciences. With this status, they are adding many research opportunities for students. This month, they decided to launch a 600-g balloon, which is like a weather balloon, as high as 100,000 feet into the air. The first balloon is simply to test if we are able to send one to that elevation with equipment necessary to collect data.

The long-term purpose of this launch is to be able to perform

science experiments at high altitudes and in near-space environments. The department is thoroughly excited to see what the future brings. Dr. Brad Barlow (Assistant Professor of Astrophysics) said, "We really are taking this program to new heights!"

Look forward to how the de-

partment will get off the ground!

Join Physics Students and Faculty for a  
**Balloon Launch**  
 into  
**SPACE**  
 Monday Oct. 28th\* at 12:30pm on the  
 Roberts Hall Front Lawn!  
 \*If the weather is bad, we will re-schedule to Wed. at 12:30pm or Fri. at 1:45pm.  
 For up-to-date launch information, check [facebook.com/HighPoint.Physics.Astronomy](https://www.facebook.com/HighPoint.Physics.Astronomy)  
 Background Picture (c) Justin Hamel

## Upcoming Events

### Greensboro Science Center Trip



The Office of Undergraduate Research and Creative Works will be taking a trip to the Greensboro Science Center on November 9th in order to explore opportunities for students! The Center is comprised of an aquarium, museum, and zoo. There are opportunities for students included in the areas of Science, Design, Marketing, and Strategic Communication. The trip is free, but RSVPs are required.

Be sure to join us and RSVP by Monday, November 4th.

For more information on the center, visit: [greensborosciencecenter.org](http://greensborosciencecenter.org)

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### Phoenix Literary Festival

Every year, the English Department hosts a literary festival, encouraging students to submit creative entries in the categories of Fiction, Non-Fiction, and Poetry. The deadline for submissions was November 1, but there is still time to participate. Along with this competition, influential writers are invited to High Point University to do readings and speak on the topic of writing.

In November, the Phoenix Reading Series invites Terry

L. Kennedy and Drew Perry on Wednesday, November 6 at 7 PM to the Phillips Hall Francis Auditorium as part of the Cultural Enrichment Series.

Terry L. Kennedy is most-known for his works *New River Breakdown* and *Until the Clouds Shatter the Light That Plates Our Lives*. He is the Associate Director of the Graduate Program of Creative Writing at UNC-G, Editor of the online journal *storySouth*, and Associate Editor of the *Greensboro Re-*

*view*.

*This is Just Exactly Like You* and *Kids These Days*, Drew Perry's first and second novels, were well-received. He also wrote fiction in places like *Willow Springs*, *Black Warrior Review*, *Atlanta Magazine*, *Alaska Quarterly Review*, and *New Stories From the South*, just to name a few. Perry is currently Assistant Professor of English at Elon University.

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### Other Announcements/ Reminders

-Don't forget to RSVP for the Greensboro Science Center by November 4th.

-Contact Dr. Altman if you're interested in receiving emails to notify you of upcoming SURE events.

-There are valuable student resources available on the URCW website, like lists of journals open for publication, grant opportunities, and other news. Make time to explore the site. [www.highpoint.edu/urcw](http://www.highpoint.edu/urcw)

### Contact Us!

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