Biology Newsletter: May 2013

The College at Brockport

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The State of the Department

Congratulations to all of the students, faculty, and staff of the Dept. of Biology for completing another academic year. On behalf of the department, I would also like to use this opportunity to thank Provost Anne Huot for all of the support she has provided to us in the past five years. Provost Huot has created and instituted many initiatives that have benefited both the learning and research environments for all of the members of the department. We wish her well in her new role as the President of Keene State College in New Hampshire.

The end of the year is when many of the honors and awards are bestowed on deserving students. As you read on, you will learn about the students who have received departmental awards. I want to just congratulate Laura Pankowski, Bridget Cooney, Stacy Wicks, and McKinsey Meadows who are the recipients of these awards.

Summer is a time for many things such as relaxing, making money to pay for the next academic year, and getting involved in activities that will help with career paths.

I would like to send out a welcome to the students who will be doing research with Biology faculty due to the support of the College’s Undergraduate Summer Research Internship. Congratulations to all recipients! In addition, the Department of Biology has awarded Jaclyn Beckinghausen the Paul and Agnes Bower Fellowship that will support her summer research.

To those students who will be graduating, the department wishes you the very best in your future endeavors. Specific congratulations go out to Andrew Goodspeed for being the first graduate of the combined BS/MS program and to Laura Pankowski and Stacy Wicks for being the first graduates of the Biology Honors Program. For those of you returning, try to have a relaxing summer and the faculty looks forward to seeing you in the Fall.

-Dr. Rey Sia, Assoc. Prof & Chair

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Special Notes:

Congratulations to our graduating seniors! Have a wonderful summer and we’ll look forward to a successful 2013-2014 academic year!

Paul and Agnes Bower Biology Research Scholarship Recipient for Summer 2013 is Jaclyn M. Beckinghausen

After a semester away from SUNY Brockport attending a different state school, I have come to better appreciate all that the College at Brockport has to offer. With personable faculty, interesting coursework, and opportunities to engage in hands-on research, Brockport is an inviting center of learning and positive experiences. I am extremely excited to return not only to the school’s friendly campus environment and its caring staff, but also to the college’s accredited research program. In previous semesters, I worked under the supervision of Dr. Pelletier in his quest to understand and control the evade nature of Trypanosma brucei, a parasite causing death through a disease known as African Sleeping Sickness.

Since leaving Brockport, I have missed my time spent in Dr. Pelletier’s research lab the most. There I established a rapport with a knowledgeable professor, gained a better understanding of the molecular mechanisms of T. brucei, and became more comfortable in utilizing lab equipment. Furthermore, by participating in such a pivotal project, I am encouraged and optimistic about following suit in my future. Upon my return to Brockport this coming summer, I am enthusiastic about again joining the lab and further expanding my knowledge on lab techniques and the process of hypothesizing, experimenting, and reevaluating based on the obtained results.

For this summer, I am honored to be the recipient of the Bower Fellowship award. With the help of this fellowship, I can now devote 8 weeks of the school break to performing research under Dr. Pelletier. By further expanding my knowledge in the research field through this experience, I am better preparing myself for both graduate school and beyond. With this scholarship, therefore, I am hoping to become more affluent in performing lab techniques and to gain deeper insight as to the implication of the experimental results. In doing so, I am ensuring a better chance at obtaining a graduate career. — submitted by J Beckinghausen
Laura Pankowski
(B.S. ‘13)

The years spent in college are a big transitional stage in everyone’s life. Personally, the first year at Brockport was especially difficult because I was coming from out of state (Michigan). I had to form new relationships and get acquainted with my new surroundings. The Biology department at Brockport was a great fit for me. I found myself forming bonds with my peers and my professors and succeeding in many different areas. However, this success did not come without hard work and dedication. I always had the goal of entering into the health field after college so I knew I had to get good grades, work hard and become involved. Little did I know this would lead to an unforgettable four years at Brockport. I have had the privilege of developing more than one role model to listen to me and give me guidance. Dr. Sia, my advisor and chair of the department, Dr. Cook, my cell biology professor and Honors Program Coordinator and Dr. Logan, my pre-med advisor. Each of these professors and advisors were there during many crucial points in my life and has helped me grow as a person and a student. Being an active member in the Pre-professional club and Honors Biology Program has helped me learn how to manage my time and priorities. Some of the best advice that I could give to my fellow peers would be don’t give up. There were many moments when I felt overwhelmed and thought that I wasn’t going to be able to do it. But with the help of my friends and mentors, I was able to push through. As long as you remember to take one day at a time, each day can be used as a stepping-stone to your success.

Featured Biology Graduates — Graduate Student

Andrew Goodspeed
(B.S. ‘12, M.S. ‘13)

When I was approached to submit an article on my experiences as a biology graduate student I was skeptical, and initially didn’t want to do it; but in realizing that I have, in a sense, done it all at Brockport, I warmed up to the idea. Many of you know me as that teaching assistant, that fellow student, or maybe that guy from that presentation. I was the first person to enter the new 3+2 program, and I also spent time as a tutor. So the more I considered writing this article, the more I realized that there isn’t much I haven’t done here, and that I should probably share some of that experience, in hopes of helping others.

When I transferred to Brockport in 2010, the plan was to pursue a bachelor’s degree in biology, with the intention of going on to medical school. However, when I joined Dr. Cook’s lab on a whim, my interests quickly changed. While research is certainly challenging, I quickly developed a passion for it. Conducting research has the stigma of being difficult, tiring, and full of failure—unfortunately these descriptions are mostly true.

However, the benefits of conducting research greatly outweigh the negatives. I would argue that I have learned more in just two years of research than I have in five years of taking biology courses. This is not because courses are unnecessary; rather, it is because real life experience in the field of biology occurs every day in research labs. The research life also accompanies a number of other perks—one of them being that many students are able to attend conferences that are scattered all over the country. I have personally traveled to both Utah and San Francisco to present my own research and learn about others, all on someone else’s dime. Brockport research students are consistently being accepted into strong PhD and medical programs; in fact, I have been accepted into a pharmacology program at the University of Colorado Denver, and all of the professors I interviewed with commented on my research conducted here at Brockport. Finally, those whom I have worked alongside in my research lab have become some of my closest friends I liken the lab chemistry to that of a sport’s team’s.

I strongly recommend all biology students to consider conducting research here at SUNY Brockport. Our students are lucky enough to have an opportunity to gain experience in a number of reputable research labs, and conducting research here will not only provide marketable experience, but it will also open doors for you in the future. On a final note, I would like to suggest that you take advantage of the many opportunities offered here at Brockport. At one point I was on the fence about joining a lab, applying to the master’s program, and becoming a teaching assistant, but I ended up taking the plunge—it was one of the best decisions I could have made. As I look back on my time at Brockport, I realize that my most important experiences came from those activities I was once unsure of doing. I urge you to take more chances on the opportunities that are often right in front of you; if you don’t, you will never know how important they might have been.
Brockport Biology Students at the 2013 NCUR Meeting in Wisconsin

The College at Brockport sent a total of 26 students to this year’s National Conference for Undergraduate Research at the University of Wisconsin-La Crosse campus. Undergraduate students representing the Biology Department included Laura Pankowski from Rey Sia’s lab, Stacy Wicks and Derek Bernacki from Laurie Cook’s lab, Janna Draper from Michel Pelletier’s lab, Emily Wexler from Huey Hing’s lab, Victoria Cenzi from Adam Rich’s lab, and Ted Ryan from Stuart Tsubota’s lab. Congratulations to all!

Departmental Honors and Awards

- **Stacy Wicks** was official NY-Omicron Chapter nominee for the Alpha Chi Sledge Benedict Award this year!
- **McKinsey Meadows** is this year’s recipient of the Charles S. Thomas Memorial Scholarship for the student with the highest average in BIO111.
- This year, Laura Pankowski was selected as the recipient of the Francis Claffey Award, which is awarded to a senior demonstrating academic excellence, and Departmental Scholar.
- **Stacy Wicks** received the Elmer J & Fay Cloutier Award.
- **Bridget Cooney** received the Henry Gould Award.
- **Excellence in Research Awards** will be presented to the following graduating seniors: Bridget Cooney, Janna Draper, Darian Eden, Robert Gregory, Julie McGrath, Matthew Morasco, Laura Pankowski, Alesya Poplavskiy, Christopher Prevost, Tyler Steinhilber, Alexis VanEtten, Emily Wexler, and Stacy Wicks.

Summer 2012 Course Selections

The Department of Biology is offering the following courses over the Summer Session. If you are interested in taking a summer course, we urge you to register soon so that you may lock in your seat. Demand has been high this year.

- 5/20/13-7/3/13  BIO 285 Biology of Aging (online course)
- 6/3/13-7/3/13  BIO 111 Principles of Biology
- 7/8/13-8/10/13  BIO 322 Anatomy and Physiology II
- 7/8/13-8/10/13  BIO 321 Anatomy and Physiology I
- 7/8/13-8/10/13  BIO 323 Microbiology

Call for Updates!

If you are a current or former Brockport Biology Student, we want to hear about you! Please send us updates on your career, education, etc. to include in our Departmental Newsletter!
Dr. Laurie Cook would like to congratulate three graduating students: Stacy Wicks, Bryan Pratt and Andrew Goodspeed! The lab will miss you! Andrew Goodspeed will be following in Dr. Cook's footsteps as he prepares to enter into a PhD Program in Pharmacology at the University of Colorado at Denver. Stacy Wicks will begin working towards her PharmD at St. John Fisher College. The lab welcomes new research students: Chris Tomeny who will begin this summer as well as John Fitzsimmons and Brian Heiss who will join Colin King, Derek Bernacki and Nico Covello in the fall.

Congratulations to Stacy Wicks and Derek Bernacki for successful presentations at this year’s National Conference on Undergraduate Research and also to Bryan Pratt and Andrew Goodspeed for fantastically popular Scholar’s Day presentations!

In addition to mentoring students and writing grants and manuscripts for submission, Dr. Cook will be working with Academic Advisement this summer to prepare Freshman and Transfer student schedules. She is also excited to be part of a campus team of faculty and administrators attending a 5-day AAC&U conference on High Impact Practices and Student Success in Madison, WI this June. In addition to this “business trip” Dr. Cook is planning fun trips to Myrtle Beach and Las Vegas!

Dr. Rey Sia congratulates Laura Pankowski on a successful NCUR presentation! Matthew Luther received an Brockport Summer Undergraduate Research Fellowship to work with me on identifying the role of Rad52p isoforms involved in mitochondrial DNA recombination. Hugo Avalos accepted into the Univ of Rochester Medical Center's Summer Undergraduate Research Fellowship Program (SURF). This program is committed to enhancing the preparation of candidates for careers in the health professions, research and the biomedical sciences who have a demonstrated vision and commitment to improving the health status of diverse patient populations via patient care, research and/or teaching. Dr. Sia also congratulates Scholars Day Participants from his lab: Christopher Prevost, Kathryn Wershing, and Alexis VanEtten presented on ‘The role of DNM1 in mitochondrial genome stability’. Matthew Luther, Hugo Avalos, and Emily Whiteside presented on ‘The role of Rad52p isoforms in nuclear and mitochondrial homologous recombination events’.

Two of Dr. Sia’s students received prestigious Departmental Awards: Bridget Cooney won the Henry Gould Award and Laura Pankowski was named Departmental Scholar and was given the Francis Claffey Award.

Dr. Huey Hing presented a platform talk at Association for Chemoreception Science (AChemS) annual meeting in Huntington Beach, California, on April 19th. The talk was entitled: "A Wnt5 Gradient Patterns the Drosophila Olfactory Map"

Dr. Stuart Tsubota reports that his lab has created Drosophila stocks in which the fly enhancer of rudimentary, e(r), gene has been replaced with either the human gene or the Dictyostelium (slime mold) gene. The flies are fine and seem to be happy, although those with the human gene have begun to question their reason for being. Ted Ryan received a Brockport Foundation Summer Undergraduate Research Internship and will be in the lab this summer. He will be using two e(r)-GFP reporter genes to examine the expression patterns of e(r) and to dissect the transcriptional regulatory regions of e(r).

The following students who will be attending the Clinical Year for Medical Technology in Fall 2013:

Going to Rochester General / Strong Memorial Hospital are Rachel Folts, Rachel Wyand, Dan Reboulet, Crystal Diaz, Matt Stewart, Adam Brooks, Kris DeWaters, Patricia Steiner, Kris Brown, Katie Rothhaar and Erin Gwara-Maxwell.

Going to WCA Hospital in Jamestown, NY is Lacey Staniszewski.

Congratulations!

This is double our largest cohort to date!

Also, ten students are participating in the 4-week internship at ACM Laboratories, where they will get to experience first-hand the activities performed by Licensed Medical Technologists. Students who participated last summer found the experience very informative and useful.
Student Successes and Alumni Updates

- **Rosanna Riorden (B.S. ’10)** will be attending Medical School at the UNC School of Medicine.
- **Laura Shum (B.S. ’10)** accepted an offer to begin a PhD program in Translational Biomedical Sciences at the University of Rochester Medical Center.
- **Giulia Weissenberger (B.S. ’13)** is working at the Naval Medical Research Center in the infectious disease department.
- **Andrew Goodspeed (B.S. ’12, M.S. ’13)** will begin a PhD program in Pharmacology at The University of Colorado at Denver Medical Center.
- **Julie McGrath (B.S. ‘13)** will be entering the Interdisciplinary Master’s degree program at Roswell Park Cancer Institute, and extension of the University at Buffalo. With a focus on cancer genetics and molecular biology.
- **Steve Lane (M.S. ‘13)** was accepted into Albany Medical University for Pharmacy School.
- **Kelly Marchionda (B.S. ’12)** accepted an offer to work at Xerox as a chemist.
- **Elizabeth Delorme-Axford (B.S. ’06)** recently successfully defended her Ph.D. Thesis at the University at Pittsburg.
- **Austin Olek (B.S. ‘12)** will being working towards his Masters degree in medical management at the University of Rochester Simon Business School.
- **Joy (Hagan) Wang (B.S. ‘09)** will begin a 3-yr prosthodontics residency in Houston in June.
- **Sarah Blake** is working as a Commercialization Business Manager at Carestream.

Summer Research Fellowships

- **Hugo Avalos** was granted a prestigious summer research fellowship to the University of Rochester Medical Center’s SURF Program.
- **Jaclyn Beckinghausen** was awarded the Bower Fellowship for Summer Research in Biology to work in Dr. Pelletier’s lab.
- **Matthew Luther** was granted a Brockport Foundation Summer Research Fellowship to work in Dr. Sia’s Lab.
- **David Saeva** and **Noah Reger** were granted a Brockport Foundation Summer Research Fellowship to work in Dr. Hing’s Lab.
- **Theodore Ryan** was granted a Brockport Foundation Summer Research Fellowship to work in Dr. Tsubota’s Lab.
- Congratulations to **Hakeem Banks and Mackenzie Meyer** for receiving McNair Summer Research Fellowships.
- **Alexander Viavattine** received a summer internship at Genesee Brewery.
Dear Alumni,

We are asking you to contribute to our Department and to help us provide research experiences for students. A research experience contributes to undergraduate and graduate education by providing hands-on experience with state of the art equipment, and an opportunity to work with faculty mentors directly. These skills are fundamental to success, and the research experience provides a competitive edge. Biology faculty are active, working with students, and presenting results at scientific meetings with students. Not surprisingly research is expensive and Biology faculty work hard to raise money for research. The College at Brockport is doing a great job in spite of funding cuts, and has found the funding to support equipment repair, equipment purchases, and support for summer research internships.

We ask that you consider donating to The College at Brockport, and specifically to the Biology Department. Your support will help us to help students. The faculty in the Department of Biology, and the College at Brockport, are committed to student excellence and student success. Donations of any amount will help us to provide significant and meaningful research experiences for students. Please consider helping to support our students’ research opportunities. For more information please contact Dr. Stuart Tsubota (stsubota@brockport.edu) or by making an online monetary gift by visiting the College’s Giving Website below, making sure that your gift is designated for use by The Biology Department in the appropriate box.

https://www.brockport.edu/giving/online/gift.php

- The Biology Faculty

Help Support the Next Generation of Biology Students

The Biology Honors Club has successfully completed their second academic year! We are excited about our increase in membership, and also that many others have expressed interest in applying. Academically, some of us have begun independent research, while others are preparing for the fall by seeking a faculty mentor and observing research methods.

The Pre-Professional Club partnered with us this semester, to organize a Chicken BBQ fundraiser with the 58 Main Restaurant. We raised $281 for the Biology Honors Club and $100 for Gilda’s Club. Thank you to everyone who helped out and donated their time to selling tickets and volunteering at the dinner!

If you are an undergraduate Biology student interested in applying to the biology Honors Program, see Dr. Cook for more information. If you are interested in joining the Pre-Professional Club, please contact Mackenzie Meyer at mmeyer3@brockport.edu.