

# Biology Newsletter

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# **HOMECOMING CHILI FEED 2013**

The Biology and Chemistry Programs will be holding their annual Homecoming Chili Feed on **Saturday, October 12** from 10:30 am to 12:00 pm before the football game on the lawn at the south end of the Science Building.



New to this year's Chili Feed is a competition between faculty for the best chili — you taste, you vote, you decide!

Many kinds of chili made by the faculty and staff will be available for alumni and their families to enjoy. We will have drinks, chips, and other food available along with all eating utensils. **Stop by and say hi!** 

# WELCOME TO DR. MICHAEL JARCHO!



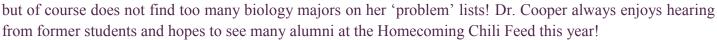
In Fall 2012, Dr. Michael Jarcho joined the Loras community as an Assistant Professor of Neuroscience. Dr. Jarcho and another new hire, Dr. Sara Bagley, have worked to establish Loras' newest major on campus, Neuroscience. Some notable contributions include the creation of a curriculum for the major, recruitment of several students that have declared themselves Neuroscience majors, a number of invited speakers from off campus (e.g. Dr. Nicholas Stanek in Spring of 2013, Dr. Nicholas Wetjen in Fall of 2013), the development of a

handful of new courses (e.g. Introductory Neuroscience, Traumatic Brain Injuries, and Hormones and Behavior), and the construction of a rodent research facility. The rodent research facility will be used to enhance laboratory sessions in several classes and will also be utilized in student research.

Dr. Jarcho really enjoyed his first year at Loras, and is looking forward to growing the Neuroscience program and to the completion of the rodent research facility. His research interests are in how an individual's social environment can influence both their stress and immune physiology, and he plans to use the mice to investigate several questions on those topics. On a more personal note, Dr. Jarcho and his wife welcomed a baby boy into the world last April, and they are enjoying watching him grow every day.

#### **FACULTY UPDATES**

2012-2013 was a good year for Dr. Cooper. She sent her oldest off to kindergarten (and Claire's now a first grader this year, but don't worry, she still has plenty of questions for Dr. Cooper's Cell Biology class!) and she continued work in the lab on proteins involved in cell migration. She worked with six research students last year, including three seniors, so she is looking to recruit some new blood soon. This past summer the whole family drove across Iowa and Nebraska for a trip to the mountains of Colorado. She says it can't officially be called a vacation when there are three young children involved, but it was a pretty good trip! She also just recently took on the role of Faculty Athletic Representative and therefore is busy checking GPAs of all student-athletes,



Dr. Davis finds himself getting used to teaching and being on campus again after he spent Fall 2012 and Spring 2013 on sabbatical.....finally! He must have behaved himself for the 23 previous years to get this opportunity! You can be the judge of that! Anyhow, he travelled for a month in September in the West visiting western Wyoming, the Wind River Mountains, and eastern Utah, seeing Arches National Park and Canyonlands National Park. He travelled to 6 other small colleges in the area that teach anatomy with cadavers. He sat in on the labs and lectures and enjoyed chatting with other instructors who teach similar classes as he does. He now has a whole list of new tricks and teaching strategies up his sleeve for future classes. He spent 8 weeks in the fall at Iowa State University as a visiting Professor sponsored by the Kinesiology Dept. He sat in on many human exercise and physiology courses and appreciated talking with various instructors about their teaching methods too. He consulted with several experts at ISU on various

aspects of his research on turtle and birds eggs and brought back some new ideas about how to get Loras students involved in doing research themselves with his help. He had time to read new review articles on human physiology, on how students learn and on conducting field research. Overall he enjoyed his sabbatical immensely and is grateful for all the people who helped him get this opportunity and cover for him while he was gone. He is looking forward to teaching physiology, anatomy, environmental biology and other courses in the future.

This past year was Dr. Schnee's first as Divisional chair and was full of challenges, opportunities to learn more and had him counting the days as to when his three year term would be up. It was a surprisingly productive year as he published an Ethics paper with Dr. Idziak on interdisciplinary teaching, had a student present at Iowa Academy and presented a paper with his wife on teaching case studies. It was also a year of some sadness as both Clark Merkel and Ed Cawley struggled with cancer and Fred's Mother recovered from a stroke.

# **FACULTY UPDATES (continued)**

After 14 years of teaching Ecology, Experimental Design and Bio 116, Dave is on sabbatical this academic year. He continues to conduct research on Black Terns and other marsh-nesting birds and plans to spend part of his sabbatical year analyzing data and writing up papers for publication based on work he and his students have conducted over the past decade. Other plans include travel to exotic places, attending conferences and, if time permits, searching for Bigfoot, which has been spotted recently in the Dubuque area.



Dr. Aditi Sinha's research focuses on invasive species. She has been examining the effects of invasive plants such as garlic mustard on biodiversity of native flora in response to various management approaches at the Mines of Spain. Another focus of her research has been on how garlic mustard affects soil fungi and bacteria. She has been teaching courses such as Introductory Biology, Plant Biology, Issues in Environmental Biology, and Plants and Human Health. This past summer, Aditi travelled to India with her kids (4.5 and 2.5 years old) to visit family and attend a wedding! Long flight but both the kids were real troopers! Aditi is working on developing a travel J-term class to India.

Dr. Wenny has been filling in as sabbatical replacement, last year for Dr. Davis and this year for Dr. Shealer. Teaching duties have been wide-ranging including Human Anatomy & Physiology, Issues in Bird Biology,

and Biostatistics as well as labs for Bio 115 and 116. Over the past two summers he organized symposia and presented papers at several conferences including the Ecological Society of America in Portland OR, Ecosummit 2012 in Columbus OH, and American Ornithologists' Union in Chicago. Many of the presentations from these symposia will be part of a book Dr. Wenny is co-editing with colleagues from the University of Utah and University of Illinois-Chicago. The book is called "Why Birds Matter: Birds' Ecological Functions and Ecosystem Services" and will be published by University of Chicago Press in early 2014 (assuming all goes as planned). Next summer he will travel to Japan for the International Ornithological Congress and give a presentation based on the book. With no sabbaticals looming for the 2014-2015 academic year, this may be the last of several busy, enjoyable, and instructive years. Working with the Biology faculty, staff, and

students has been a great pleasure and a great learning experience (but he probably won't miss grading the diatom reports!)

#### **PROGRAM NEEDS**

We encourage continued support from our Biology Alumni! Since budgets are tight here, we specifically urge you to label your gift to a specific project or piece of equipment for the Biology Program. If you are considering future donations, it is suggested that you specify that their use is restricted for one of the purposes listed below, or that you contact us about other possibilities. If you do not restrict their use and indicate that they are to be used by the Biology program in general, the Biology program is not allowed to choose how they will be used.

We currently are in need of few pieces of vital equipment that are used continuously by students and faculty in research and in teaching:

- Two cadaver tables/gurneys
- New dissection tools
- Phase Microscopes
- Planetary Ball Mill PM 100 (used when preparing biological samples for assay procedures)
- Thermocycler (used in PCR a critical technique in analyzing DNA used in testing for Genetically Modified Food, and DNA fingerprints)

### **CAMPUS UPDATES**

Cox Street was purchased by the College from the City of Dubuque with the intention of building an outdoor common area where students, faculty, staff and the Dubuque community can converge. Last spring paving work was completed and **Loras Parkway** was opened to pedestrian traffic. Planned additions to the Parkway include three large performance spaces, one of which will be a central performance plaza incorporating a large screen and stage area, benches, bike racks and greenery. The vision of the final product includes a fountain, retail building, welcome center and a veterans' memorial with the names of Loras alumni veterans etched upon it, commemorating those who have selflessly served.

The following Biology faculty received funds for faculty-student research from the **McElroy Foundation**:

- Dave Shealer and Christopher Comstock ('12) (Jacksonville, Ill.), "Use of Remote Sensing to Predict Site Occupancy by a Declining Wetland Bird, Black Tern, *Chlidonias niger*".
- Aditi Sinha and Meggen Elsen ('12) (Nekoosa, Wis.), "Allelopathic effects of garlic mustard, *Alliaria petiolata*, on soil bacterial communities".
- Thomas Davis and Kathleen Ehlbeck ('12) (Freeport, Ill.), "Shell-less Egg Culture and Calcium Deficiency in Chicken, *Gallus domesticus* and Common Map Turtle, *Graptemys geographica* Embryos".
- Kate Cooper and Brennan Tesdahl ('12) (Dubuque, Iowa), "PACSIN 2 Expression Patterns and Effects on Development in zebrafish, *Danio rerio*".

#### **BIOLOGY ALUMNI BOARD**

We encourage feedback and input from our alumni. We are in the process of developing a **Biology Alumni Board of Visitors** that would meet 2-3 times per year with students and faculty in biology to help with planning, curriculum changes, and equipment needs in the hope that some outside influences would help keep the program fresh and address the needs of future students. If you have any interest in being a member of this Board please contact Dr. Davis. We anticipate that the Board will consist of 5-6 energetic grads interested in providing feedback and helping to shape future changes. Always feel free to contact any one of us about questions or suggestions or input. Our telephone numbers and email addresses are listed on the front page of this newsletter.

# THANK YOU!

Thank you to all the alumni who have donated some money to Loras or to the Biology Program specifically. We look forward to using your money to improve our college experience for our students. Many of them have been quite successful. We get constant feedback each year from our graduated students about how they have been well prepared, many times better prepared than other students in their classes from similar sized and larger schools.

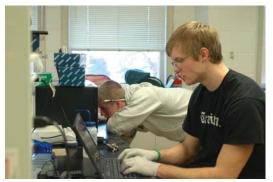
# Always stop in and say hi if you are in Dubuque!











Biology and Biological Research Majors working on their projects during the Jterm course "Intensive Science Research".