

# BIORHYTHMS

## MONTHLY

February 1, 2007  
Volume 1: Issue 3



### Old News

#### *Plant Biologist Search*

After an extensive search and three successful seminars, the Biology department has hired Ben Deridder as the new plant biologist. Dr. Deridder will be leaving his research position at the USDA in favor of teaching plant molecular biology at Grinnell next year. He will be taking over Professor Robertson position, however she will continue to teach on Senior Faculty Status. On behalf of the Biology Department we would like to thank all of the students who attended the seminars and filled out the surveys. The feedback was greatly appreciated by the faculty and helped immensely in forming their decision.

### New News

#### *Faculty Publications*

Congratulations to Professor Lindgren and Professor Brown for their recent acceptances for publication! This is a big deal so make sure to congratulate them yourselves on all their hard work!

Mittelbach, G.G., D. Schemske, H.V. Cornell, A.P. Allen., J. M. Brown, M.Bush, S.P. Harrison, A. Hurlbert, N. Knowlton, H. A. Lessios, C.M. McCain, A.R. McCune, L.A. McDade, M.A. McPeck, T.J. Near, T.D. Price, R.E. Ricklefs, K. Roy, D.F. Sax, D. Schluter, J.M. Sobel, M. Turelli. In press. Evolution and the latitudinal diversity gradient: Speciation, extinction, and biogeography. *Ecology Letters*.

McPeck, M.A. and J.M. Brown. In press. Clade age and not diversification rate explains species richness among animal taxa. *American Naturalist*.

Zachary Newman, Priya Malik, Tse-Yu Wu, Christopher Ochoa, Nayantara Watsa and Clark A. Lindgren (2007). Endocannabinoids mediate muscarine-induced synaptic depression at the vertebrate neuromuscular junction. *The European Journal of Neuroscience*.

### Upcoming Events

#### *T-shirts*

Hold your horses, the t-shirts are on their way!!! If you are interested in ordering one let us know or keep a look out for upcoming emails and posters. To see the t-shirt design stop by the Bio SEPC board across the hall from Professor Gregg-Jolly's office.

#### *Study Break*

There will be a study break sometime in the next few weeks. Keep an eye out for the emails and posted information!

#### *Summer Research*

This **Friday, February 2<sup>nd</sup>** the Biology department will be holding a **seminar on summer research opportunities with Grinnell faculty**. The seminar will be held at 12:00 pm in room 2021.

#### *Ideas?*

If you have ideas for how your BioSEPC can improve BioRhythms, please send them to us at [BioSEPC].

## Alumni Insider

*Melissa Marks:*

You love biology and you are thinking about attending graduate school in the near future. Where do you start? The application process can be overwhelming, but an organized approach will help you successfully choose a program and complete your applications on time, with minimal stress. There are several components to every application, but different schools and programs will emphasize these differently.

Where to start? Virtually all graduate schools will require that you take the GRE. The general GRE is a standardized test that has three sections: verbal reasoning, quantitative reasoning, and analytical writing. The test is offered year-round and if you are applying to graduate school during your senior year at Grinnell you should take it no later than October. Even if you are planning on taking a year or two off before beginning the application process it is a good idea to take the GRE while you are still in school. The scores are valid for five years and the longer you are away, the harder the test becomes. Some schools require the GRE subject exam a paper-based exam that is given several times per year. There are two versions that are appropriate for biology majors (Biology and Biochemistry, Cell and Molecular Biology). Many programs will accept scores for either one, but you should take the one that is most appropriate for your background and interests.

What are your interests? This is a very important question. It can be a hard one to answer, but you should have fun with it. Think about your favorite topics from your courses and start reading recent review articles to familiarize yourself with the direction the research is headed. When you find one that interests you, check the references and start reading the primary literature in the field. Do the methods appeal to you? Can you imagine spending 5-7 years working with them? Are you inspired to ask questions like “What would happen if...?” Can you think of a list of experiments that you would do to follow up on an interesting result? If you can answer “yes” to these questions, move on to step 3.

Choosing schools and programs. Every publication will print the authors’ affiliations along with the article. From your stack of interesting articles, make a list of the schools and primary investigators (professor or head of the lab). Are there any schools that appear more than once? Ideally, you should only apply to schools where there are multiple people with whom you can imagine working.

Research the schools. Read the department webpage. Read the descriptions of faculty research interests. You probably found some of these through your original literature searches, but there will likely be labs that interest you that you did not find in your original search.

Narrow the list. Graduate school can last a long time. You need to be interested in the science, but you should also choose a location that will make you happy. Do not apply to places you don’t want to go. Avoid applying to places where there are fewer than three labs you could imagine working in. At this stage, flexibility within a program is a good thing. If you are not admitted this year, find a job working in a lab and apply again next year.

Write your essay(s). You cannot change your grades or your test scores, but you can make an impression with your writing. Use this opportunity! Admissions committees read hundreds of applications with well-written, but predictable essays. Write in a way that makes you memorable to the reader. Intrigue them. Make them want to meet you. You are an interesting person, convince them. Don’t forget to assure them that you will also be a successful scientist.

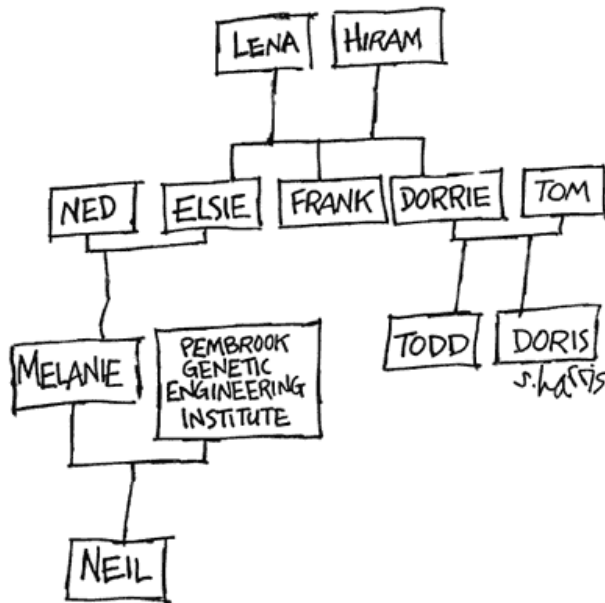
Ask for recommendations from people who know you and will be able to speak about your strengths. And remember to ask early. You should provide copies of your essay(s) and offer your recommenders the chance to discuss your goals for graduate school. You have a great advantage as a Grinnellian, your faculty know you well and can write very personal letters. The better we understand your goals, the more specific our letters can be.

Get your applications in before the deadlines and have fun with the process!

Melissa Marks

Assistant Professor of Biology, Grinnell College

## Biology Comic of the Month



## Ali's Random Fact of the Month

### *Got Spider Goat Milk?*

Scientists at Nexia

Biotechnologies have successfully created transgenic goats that secrete spider silk in their milk. The goats are capable of producing up to 7g of silk daily. The silk is then harvested from the milk and used to produce BioSteel, material 5 times stronger than steel itself.

<http://query.nytimes.com/gst/fullpage.html?sec=health&res=9C05E7DD113DF935A25755C0A9649C8B63>

- Your Friendly BioSEPC

Jason Cook '07  
Zach Newman '08  
Monique Pairis '07  
Ali Titiz '08  
Nick Vitko '08  
Hanghang Wang '07