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To: Jeremy Bennett <jebennet@indiana.edu>

From: Yves Brun <ybrun@indiana.edu>

Subject: Fwd: Recommendation for Eric Kramer: Systems Biology Faculty Search

Date: Tue, 25 Oct 2005 16:22:42 -0500

X-Mailer: Apple Mail (2.623)

Begin forwarded message:

From: Jennifer Normanly <normanly@nsm.umass.edu>

Date: October 25, 2005 2:54:51 PM EST

To: ybrun@indiana.edu

Subject: Recommendation for Eric Kramer: Systems Biology Faculty Search

Dear Dr. Brun, Please let me know if you need a hard copy of this letter. Jennifer

October 25, 2005

Yves Brun

Systems Biology Faculty Search

Department of Biology, Indiana University

Jordan Hall 142

1001 E 3rd Street

Bloomington, IN 47405-7005

Dear Dr. Brun,

Dr. Eric Kramer of Simon's Rock University has asked me to write a letter of recommendation on his behalf and I do so with pleasure. I have known Eric for about 3.5 years, and we currently collaborate on his USDA-funded project to refine his mathematical model for control of wood grain pattern in Populus trees. Eric is a physicist by training who is applying his computer modeling expertise to a long-standing question in plant biology, namely how transport of a small molecule growth regulatory compound, indole-3-acetic acid (more broadly known as the plant hormone auxin) is regulated and how it impacts key developmental processes in plants. He has demonstrated impressive insights into a complex biological problem. Eric seems to be the sort of scientist who can ably make contributions to his own research area, and has a broad curiosity about scientific problems such that he would be a great colleague to have down the hall to bounce any variety of ideas off of.

Eric first contacted me by email in July of 2002, seeking information on how to measure levels of indole-3-acetic acid in tree cambium. Eric wanted to use this data to refine his model for wood grain formation in trees. This is a compound that my lab routinely measures in other plant species, and we had several conversations about how he could apply our methods to his samples. Because his institution isn't really set up for the sort of bench work that was necessary, we decided to collaborate, with my laboratory providing the data on samples that he collected from experiments of his design. Impressively, Eric was able to secure funding to support this project based upon his published model, and my lab has spent the past three summers processing samples for him. We have promising data from his experiments that

should have resulted in a publication by now-the holdup is at my end, due to technical problems with instrumentation and the unanticipated need to modify our methods slightly for his samples. During this time, Eric wrote a well-received article on his model for transport of auxin in plants in the journal Trends in Plant Sciences. As a result of this review he has developed other successful collaborations with plant scientists, namely Malcom Bennett, a major name in the field of auxin transport in plants. They now have a publication in press in Nature Cell Biology. He is currently on sabbatical at UMass Amherst in the lab of Tobias Baskin, a plant cell biologist.

Eric has been one of my most interesting collaborators. As a theoretical physicist, he didn't really have a sense of "bench science" when we began this project, but he very quickly picked up on the mechanics involved and I expect that Tobias will find him an equally quick study. I have been impressed with how he absorbs the fundamental concepts underlying the biological problems that we've discussed, and his background as a physicist and modeler places him in an excellent position to make substantial contributions to our thinking. The auxin transport field in particular is not currently very quantitative and could use his mathematical insights. I gather that while Eric has successfully negotiated the tenure and promotion demands unique to a small liberal arts college, his interest in basic research isn't particularly well-suited to his current position. He really needs to be at an institution where he will have access to graduate students. I sense that he would be adept at teaching in a physics department or biophysics in a life science department. In summary, as the life sciences become increasingly more interdisciplinary, Eric is the sort of scientist who would be an asset to any department wishing to interface math, computer science, physics and biology.

Sincerely,

Jennifer Normanly

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Jennifer Normanly  
Associate Professor and Associate Head  
Dept. of Biochemistry and Molecular Biology,  
Adjunct Associate Professor, Dept. of Chemistry  
Lederle GRC Tower  
University of Massachusetts  
Amherst, MA 01003, USA

normanly@biochem.umass.edu  
413-545-3422 (phone)  
413-545-3291 (fax)

--Yves

<http://www.bio.indiana.edu/facultyresearch/faculty/Brun.html>

Yves V. Brun  
Professor and Director, Microbiology Program  
Department of Biology, Indiana University  
Bloomington IN 47405-7005  
Phone: 812-855-8860 (office), 855-7239 (lab)  
Fax: 812-855-6705