H A V E R F O R D C O L L E G E

KINSC

NEWSLETTER-OCTOBER 2008

Issue No. 1, Volume 2

KINSC CALENDAR

Math Colloquia (Tea @ 4:00 p.m. Math Lounge, KINSC H208):

10/6/08-10/7/08-Michael Lavine,

UMASS Amherst, "What is Bayesian Statistics and Why Everything Else is Wrong" and "Spike Trains and Human Brains"

10/20/08- Rob Ghirst, University of Pennsylvania

11/3/08-Dave Futer,Temple University

Biology:

10/27/08- 2:30 p.m-Sharpless Auditorium-Philip Meenely, Haverford College

Physics:

10/28/08-4:30 p.m.-HIlles 109-Philips Visit-Robin Selinger, Liquid Crystal Institute, Kent State University, "Modeling Liquid Crystal Elastomers: Actuators, Pumps, and Robots"

Chemistry:

11/7/08-3:00 p.m.-Hilles 109-Patrick Walsh, University of Pennsylvania, "Stereoselective Tandem Reactions for C-C, C-O, and C-N Bond-Formation"

Psychology:

11/10/08- 4:30 p.m.-Sharpless Auditorium- Distinguished Visitor, Ken Nakayama, Department of Psychology, Harvard University, will be discussing his research on vision and prosopagnosia.

KINSC Director- Rob Fairman

We are now half way through the Fall semester and have already started spending our programming budget on a variety of great projects. Let me update you on what we've been doing this year and encourage you to talk to us about how you want the KINSC and HHMI funds to best serve you. As you know, Alex Norquist and I have been busy meeting with you all to let you know about the exciting opportunities that are becoming available and have also gotten some great creative ideas for future activities. If you haven't yet scheduled a meeting with one of us, please email Natalie Marciano, our new KINSC program coordinator, to find a time to meet with us. You will be pleasantly surprised at what the Center can do for you! By the way, Natalie has moved; you will find her in H305b in the Science Library.

Check out our brand new KINSC website: http://www.haverford.edu/KINSC/. Thanks go to David Moore and Ben Le for a well-organized and slick site that advertises all of the new programming. In addition to the programming components, it has a blast from the past (from our building design phase), other resources for students and faculty, information about the Koshlands, science-oriented news, and a calendar of events. Future additions to the site will include electronic editions of our newsletter, videos of Distinguished Visitors speakers and internal faculty talks, and job postings for research positions, including both summer positions and post-graduate opportunities.

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FACULTY HIGHLIGHT- JOSH SCHRIER

I arrived at Haverford in the first week of August, and spent the next few weeks working on lecture notes, building a Haverford website, and otherwise settling in at 9B College Lane. This semester, I have been teaching Chem 305, "Physical Chemistry I", which is a mix of statistical and classical thermodynamics. I am really enjoying teaching this class, especially the chance to revisit topics like steam engines that I find interesting but never have time to think about otherwise.

As for research, I have been working on a few projects. First, Ethan Alguire '09 is completing a senior research project that we began over the summer, which examines a new functional form for the correlation energy used in

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(Fairman, cont.)

So far, we have approved applications from several students for travel to a variety of meetings. We have also received one request for funding a student externship in Psychology. We expect to set a deadline in February for these externship opportunities. We are also pleased to be funding a student/faculty led project on solar energy (ask Suzanne Amador for more information) and an exciting two-day symposium in the spring on Environmental Studies, co-sponsored with HHC and CPGC. We also are expecting to host a reception later this semester to celebrate the new resources that we've been able to create for students and faculty. Stay tuned!

You will find information in this newsletter about our recent research symposium, a short report from Josh Schrier on his activities, and new critical questions answered in our K&A Korner. If you have ideas for future content, or would like to celebrate recent student accomplishments, please send us the appropriate information.

(Schrier, cont.)

density functional theory, specifically as it relates to inorganic solids. Second, Adam Subhas '09 and Greg Guthe '09 have started work this fall on senior research projects to model various aspects of the growth, structure, and optoelectronic properties of the self-assembled organic nanorods developed and studied by Walter Smith and others here at Haverford. I continue to be impressed with how self-directed these guys have been, and that I can essentially hand them a somewhat open-ended problem and find out the next week that it has been solved. Finally, I have been trying to finish a few projects of my own, one related to the calculation of exciton binding energies in inorganic nanowires, and another related to a new method to create tandem structures for nanowire photovoltaics. The latter is kind of fun-actually, it would be a great problem for students in the Chem 105 course I am teaching next semester, as the main idea is really just classical thermodynamics and a little geometry.

HHMI UNDERGRADUATE SCIENCE RESEARCH SYMPOSIUM

On Saturday September 27, the KINSC hosted the 5th Annual Undergraduate Summer Research Symposium, a gathering of students and faculty from area colleges, funded by Haverford's grant from the Howard Hughes Medical Institute. Students from Bryn Mawr, Haverford and Ursinus Colleges presented 62 research posters. The presenters were enthusiastic and engaged, and everyone took part in stimulating discussions about the students' work. Research topics ranged from the microbial diversity of hydrothermal vents to robotics to rumors and memory in children.

The group thoroughly enjoyed the keynote address, "Cellular responses to bioenergetic stress," presented by Craig Thompson, Professor of Medicine and Director of the Abramson Family Cancer Research Center at the University of Pennsylvania. Lively and thought provoking, the talk discussed the relationship between growth factor signaling and metabolism.

If you would like a program from this event, which includes the poster abstracts, please contact Natalie Marciano. There is also a video of Dr. Thompson's lecture available for viewing if you were unable to attend the symposium. Video clips of the talks and the poster session are coming to our website soon. -Kate Heston

ASK K and A KORNER?

Our new procedures for scheduling the poster printer have decreased the pile-up and tension that results from last minute planning, and we appreciate everyone's efforts to make this work better. If there were any problems or suggestions for how this went in preparing for the recent research symposium, don't hesitate to let us know! You should be aware that the poster printer is no longer being supported on the Mac side and we will need to anticipate the purchase of a new poster printer in the next year or two. Departments will be consulted for funding this purchase.

Things have generally been quiet in the office with respect to specific projects and facilities concerns. Let us know if you are okay with our current approach to handling facilities issues. As you know, we are putting most requests in through our online WebTMA service.

There's also been discussion in the office with our contribution to "going green" focus of the college. This has begun to be implemented and spearheaded by Bruce Boyes' suggestion to not put the Founders Bell into faculty mailboxes but instead to keep the copies on the workroom counter . A tally of the number of Founders Bell issues not picked up each week is recorded. We also have recycled paper to offer to folks who are interested.