

**2014 WEEKLY BULLETIN**  
**DEPARTMENT OF CHEMISTRY, NORTHWESTERN UNIVERSITY**  
**EVANSTON, ILLINOIS**  
**July 7, 2014**

Thursday July 10:                    *Excellence in Graduate Research Seminar: Daniel Cohen*  
Tech LR5  
4:00 – 5:00pm

**For full schedule, including Center events, please see the Department Calendar:**  
<http://www.chemistry.northwestern.edu/events/calendar.html>

### **BIP**

Meets every Friday at 3:00pm in Tech K140

### **Arrivals**

Kazuhide Hara joined the Hupp Group  
Yangyang Liu joined the Hupp Group  
Amy Marts joined the Hoffman Group  
Su-Young Moon joined the Hupp Group

### **Announcements**

#### **Happy birthday Laurie!**

Laurence Marks celebrates his 60th birthday this week. Professor in Materials Science and Engineering and long-time collaborator of the chemistry and applied physics programs, Laurence continues to lead a successful research group focusing on electron microscopy, plasmonics, and catalysis. His achievements were celebrated earlier in an all-day research symposium attended by alumni and collaborators reunited to thank his contributions to science and education at Northwestern University.

### **Opportunities**

**Pharmaceutical Sciences group at Merck & Co. Inc.** has several exciting Sr. Scientist openings. The positions will be located at our Rahway NJ or West Point PA sites. We are seeking talented chemists with backgrounds in analytical, organic, physical organic, organometallic, inorganic, physical, bioanalytical, biophysical or polymer chemistry. In this role, the Sr. Scientist will work in an interdisciplinary team supporting new product development activities. Example activities include:

- Solving challenging drug development problems
- Developing innovative analytical approaches to characterize small molecules and peptides in formulation
- Elucidate drug degradation mechanisms and develop mitigation strategies
- Characterize chemical and physical properties of excipients
- Support a variety of solid oral and parenteral dosage form development from a fundamental chemistry perspective

Interested applicants should send their resume to Yun Mao, PhD, Director, Analytical Sciences, Pharmaceutical Sciences at [yun\\_mao@merck.com](mailto:yun_mao@merck.com).

**Pure Oleochemicals, Inc.** is seeking qualified candidates to fill the position of a Senior Chemist/Chemical Engineer for our growing technology company. This person is responsible for the fabrication of polymeric membranes, completing separation experiments, and characterizing the results using different spectroscopic techniques. Experience with polymer chemistry, membranes, and separations is highly desired. This person will work closely with others in the company to design experiments and to interpret the results. Furthermore, this person is responsible for managing the day-to-day activities in the Pure Oleochemicals lab, including management of personnel, stewardship of lab equipment, publishing test results, and assisting in the successful commercialization of the Pure Oleochemicals membrane technology for molecular purification and separation as directed by the management team.

Pure Oleochemicals is a new start-up company that launched in late 2013 out of the University of Iowa. This company has proprietary membranes for the separation of key organic molecules used in numerous industrial applications. This company is head-quartered in the Iowa City/Coralville area.

**The essential job functions for this position include:**

- Will conduct research and experiments as directed by company management
- Will incorporate systems and controls necessary to assure integrity of all test results and quality control
- Will follow acceptable organic chemistry laboratory procedures as well as safety protocols
- Participation in meetings with the research team, management team, customers and other parties to ensure that his colleagues are aware of relevant issues related to technological and other developments in the lab
- Will use several instruments like nuclear magnetic resonance spectroscopy and gas chromatography in order to analyze materials and results of tests conducted in lab
- Will be responsible for lab maintenance and test equipment maintenance

**Qualified candidates will meet these requirements:**

- A Masters degree in chemistry, chemical engineering, or a related field as required is a minimum requirement.
- A PhD in either chemistry, chemical engineering, or a related field is desirable and preferred.
- Should have experience working with organic chemicals, membranes, polymers, and/or oleochemicals.
- Understands relevant safety and governmental issues surrounding safe and compliant operation of a lab engaged in organic chemistry experiments and tests.

Qualified candidates should send a cover letter explaining why they would like to be considered as a candidate for this position, their resume, letters of reference, and any other supporting information to [Human.Resources@PureOleochemicals.com](mailto:Human.Resources@PureOleochemicals.com).

**The Department of Chemistry, University of York** Applications are invited for a postdoctoral fellowship for 13 months to work with Professor Robin Perutz, FRS in the Department of Chemistry. The project is funded by EPSRC (UK Engineering and Physical Sciences Research Council) to carry out research on halogen bonding and hydrogen bonding. You will join an on-going project running in collaboration with Professors Lee Brammer and Christopher Hunter, FRS in the University of Sheffield with the aim of developing a quantitative scale for halogen bonding and hydrogen bonding encompassing inorganic and organic substrates. The successful applicant will work in new state-of the art laboratories that opened in 2012.

You should have a PhD degree in chemistry and hands-on experience in NMR spectroscopy and synthesis of coordination or organometallic complexes and a quantitative approach to your research. You will have the ability to play a leading role within the research team; you will collaborate extensively with members of the research project based in Sheffield.

This position is available from 1 August 2014

Informal enquiries may be made to Professor Robin Perutz (E-mail [robin.perutz@york.ac.uk](mailto:robin.perutz@york.ac.uk))

***The Department of Chemistry holds an Athena SWAN Gold Award and is committed to supporting equality and diversity for all staff and students.***

Full details will be available at [www.jobs.ac.uk](http://www.jobs.ac.uk) from June 2.

**The National Energy Technology Laboratory in Pittsburgh** Our work focuses on developing materials for separation of CO<sub>2</sub> from industrially relevant gas streams associated with power generation. Typically, this includes separation of CO<sub>2</sub> from N<sub>2</sub>, H<sub>2</sub>, and CH<sub>4</sub>. We are currently looking for a post-doctoral candidate to enhance our MOF synthesis capabilities. This position would focus on the development of MOF materials for inclusion in polymeric membranes to improve overall separation performance. We would like to hire by the end of summer. For more information about the position or how to apply please contact Erik J. Albenze at [Erik.Albenze@CONTR.NETL.DOE.GOV](mailto:Erik.Albenze@CONTR.NETL.DOE.GOV)

**The Georgia Institute of Technology, School of Chemistry and Biochemistry** seeks to fill a tenure-track faculty position in the development of any aspect of chemistry or biochemistry related to feedstocks from renewable and sustainable sources. Research areas of interest include, but are not limited to, functional biomaterials, catalysis, energy harvesting and storage, efficient syntheses and processes, and plant bioengineering and synthetic biology. Opportunities for significant interaction with and support from the Institute for Paper Science and Technology at Georgia Tech ([ipst.gatech.edu](http://ipst.gatech.edu)) will be available. Candidates with interdisciplinary research programs may be considered for joint appointments with other campus units.

Exceptional candidates at all levels are encouraged to apply. Assistant Professor candidates should submit a cover letter, curriculum vitae, description of research plans, description of teaching interests and philosophy, and arrange for the submission of three letters of recommendation. Candidates at advanced levels should submit a cover letter, curriculum vitae, and the names and contact information of three references. All materials and requests for information should be submitted electronically, as per the instructions found at:

<https://academicjobsonline.org/ajo/jobs/4045>

The application deadline is September 15, 2014, with application review continuing until the position is filled. Georgia Tech is an equal education/employment opportunity institution.

**The National Research Council of the National Academies** sponsors a number of awards for graduate, postdoctoral and senior researchers at [participating federal laboratories and affiliated institutions](#). These awards include generous stipends ranging from \$45,000 - \$80,000 per year for recent Ph.D. recipients, and higher for additional experience. [Graduate](#) entry level stipends begin at \$30,000. These awards provide the opportunity for recipients to do independent research in some of the best-equipped and staffed laboratories in the U.S. Research opportunities are open to U.S. citizens, permanent residents, and for some of the laboratories, foreign nationals.

Detailed program information, including online applications, instructions on [how to apply](#) and a [list of participating laboratories](#), is available on the NRC Research Associateship Programs [Website](#) (see link above).

Questions should be directed to the NRC at 202-334-2760 (phone) or [rap@nas.edu](mailto:rap@nas.edu). There are four annual review cycles.

Review Cycle: **August**; Opens June 1; Closes August 1  
Review Cycle: **November**; Opens September 1; Closes November 1  
Review Cycle: **February**; Opens December 1; Closes February 1  
Review Cycle: **May**; Opens March 1; Closes May 1

Applicants should contact prospective Adviser(s) at the lab(s) prior to the application deadline to discuss their research interests and funding opportunities. More detailed information and an online application can be found at [www.nationalacademies.org/rap](http://www.nationalacademies.org/rap).