

2015 WEEKLY BULLETIN
DEPARTMENT OF CHEMISTRY, NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS
August 24, 2015

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

- Monday August 24th: *The Malcolm Dole Distinguished Lectures in Physical Chemistry:*
James L. Skinner, University of Wisconsin – Madison
Tech L211
4:00 – 5:00pm
- Tuesday August 25th: *The Malcolm Dole Distinguished Lectures in Physical Chemistry:*
James L. Skinner, University of Wisconsin – Madison
Tech L211
4:00 – 5:00pm
- Wednesday August 26th: *The Malcolm Dole Distinguished Lectures in Physical Chemistry:*
James L. Skinner, University of Wisconsin – Madison
Pancoe Auditorium
11:00am – 12:00pm

BIP

Meets every Friday at 2:45pm in Tech K140

Arrivals

Jarad Mason joined the Mirkin Group
Dhara Trivedi joined the Schatz Group
Jing Zhao joined the Kanatzidis Group

Announcements

The Center for Catalysis and Surface Science is hosting a joint scientific meeting with UniCat, Berlin on August 25 and 25 at Pancoe Auditorium. Four half-day sessions will cover: materials synthesis / theory; heterogeneous / molecular catalysis; characterization / surface science; and biocatalysis. More information can be found at <http://www.isen.northwestern.edu/events/unicat2015/>

Opportunities

University of Liverpool, Faculty of Science and Engineering, School of Physical Sciences, Department of Chemistry - A Research Coordinator position is available in the group of Professor A I Cooper, Director -Materials Innovation Factory. The candidate should have a PhD in Chemistry, Physics, or Materials Science and excellent research skills in Materials Chemistry. Target areas include conjugated organic polymers, porous materials, organic crystalline solids, energy and photocatalysis. An excellent publication record and demonstrated ability to take responsibility in research organisation are essential. The role will focus on the most challenging areas of new materials synthesis, characterisation, and/or

computation and will have considerable scope for contribution to strategic planning and development of new research directions. This is an ideal opportunity for an ambitious individual with high levels of achievement in experimental or computational materials chemistry and the potential to become a future leader in materials research. The start date could be flexible for the right candidate, but the post is nominally available from October 1, 2015.

<https://www.liv.ac.uk/working/jobvacancies/currentvacancies/research/r-578999/>

The Georgia Institute of Technology, School of Chemistry and Biochemistry seeks to fill three or more tenure-track faculty positions. Candidates from all areas will be considered, with opportunities for joint appointments in other departments of science and engineering to facilitate interdisciplinary research and scholarship. Exceptional candidates at all levels are encouraged to apply. Candidates for appointment at the assistant professor level should submit an application letter, curriculum vita, summary of research plans, description of teaching interests and philosophy, and arrange for submission of three letters of reference. Candidates at advanced levels should submit an application letter, curriculum vita, and a brief description of research plans (particularly if future plans differ significantly from past efforts). All materials and requests for information should be submitted electronically, as per the instructions found at:

<https://academicjobsonline.org/ajo/jobs/5757>

The application deadline is September 15, 2015 with application review continuing until the positions are filled. Georgia Tech is an equal education/employment opportunity institution.

Success Academy Charter Schools - At [Success Academy](#), we are redefining what's possible in public education. Our 34 schools rank in the top 1% in math and top 3% in English among all New York State schools, while serving children with an overall poverty rate of 77%. We also act as a catalyst and model for education reform nationwide so that all kids can have access to high-quality schools.

Our [Associate Science Teacher](#) position is a full-time, salaried position, with a comprehensive benefits package. Through our partnership with Touro College, Associate Science Teachers will get a fully funded Master's and NYS teaching certification. Beyond these advantages, Associate Science Teachers also have the opportunity to share their love of science with incredibly deserving students across New York City.

Associate Science Teachers will work collaboratively with a Lead Science Teacher, to train and develop as an educator, eventually taking on their own classroom! If you are curious to learn more, explore our schools [here](#).

We are still looking for science teachers to start October 5th, 2015, so I would encourage you to [apply right away!](#)

Oxford Instruments – Santa Barbara, California is accepting applications for an **Industrial Postdoctoral Researcher**

Asylum Research, an Oxford Instruments Company and technology leader in Scanning Probe Microscopy, has a Postdoctoral Research position immediately available for a highly motivated and skilled experimentalist. As a postdoc with our company, you will use the latest SPM technology to investigate a variety of physical problems on the sub-micrometer level, including:

- High resolution imaging
- Nanomechanics
- Ferro- and Piezo-electric materials
- Nanoelectrical Measurements
- Functional Energy Production and Storage

- Fluid and Biological Imaging
- Chemical Measurements

In addition to working on ongoing research projects as described above, you will publish in peer-reviewed journals, work on projects for deployment to end users and participate in development of next-generation SPM technology.

The Candidate

Successful candidates must have:

- PhD in Physics, Chemistry, Materials Science or a related discipline
- Demonstrated publication writing and public speaking skills
- Background in SPM research or related application areas such as energy, polymers, physics, or chemistry
- Creative and independent thinking skills, along with the ability to work effectively in a collaborative and interdisciplinary setting
- Industrial experience is a plus

Apply for the Position

Asylum Research offers a creative and casual work environment with flexible hours and a chance to work with some of the most talented scientists and engineers in the field of SPM. We also provide a competitive salary and benefits program including medical, dental, vision and 401k. Postdoctoral positions are one-year appointments but have the potential to evolve into permanent staff scientist positions. To apply for this outstanding opportunity, please send your CV and three references in PDF format to Erin.McClanahan@oxinst.com . Please include the job title "Postdoctoral Associate" in the subject line. For further information, please visit our website at www.AsylumResearch.com .

Asylum Research, an Oxford Instruments Company is an Equal Opportunity/Affirmative Action employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin, disability or protected veteran status.

University of Notre Dame, Department of Chemistry and Biochemistry - Synthetic

Organic/Medicinal Chemists: Two postdoctoral positions in synthetic organic chemistry/medicinal chemistry are available. The qualified applicant would have a Ph.D. in synthetic chemistry and would be knowledgeable of modern synthetic techniques and structure analysis. He/she should be able to perform multistep syntheses of molecules designed as potential antibiotics, or probes of mechanisms of action of enzymes involved in antibiotic resistance. Knowledge of enzyme chemistry and/or medicinal chemistry principles is desirable but not required. The work environment is multidisciplinary and the successful candidates will have the opportunity to work among a large group of scientists of similar interests within our groups.

South Bend, Indiana, is a college town and a wonderful place live. The cost of living is relatively low, so students and postdocs enjoy a higher standard of living compared to other locations. The city is within 1.5 hours of Chicago by car and there are regular train and air service as well.

Interested candidates should e-mail their curriculum vitae, along with the names of three individuals who would be able to write letters of recommendations on their behalf to either of the addresses below: Prof. Mayland chang (mchang@nd.edu) or Prof. Shahriar Mobashery (mobashery@nd.edu)

Department of Chemistry and Biochemistry
423 Nieuwland Science Center
University of Notre Dame
Notre Dame, IN 46556 USA

University of Notre Dame, Department of Chemistry and Biochemistry -Organic/Analytical Chemist:

A postdoctoral position in organic chemistry/analytical chemistry is available. The ideal candidate would have a Ph.D. in synthetic organic chemistry, who would like to learn pharmacokinetics, proteomics, and biochemical assays, which my laboratory can teach. He/she should be able to perform multiple-step syntheses of molecules designed as potential inhibitors of matrix metalloproteinases to investigate the roles of these proteases in neurological diseases (traumatic brain injury, spinal cord injury) and/or diabetic wound healing. The training is multidisciplinary (synthetic organic chemistry, bioanalytical chemistry, proteomics, biochemistry, animal models of disease) and translational (analyses of human tissues from patients with disease and healthy controls), and will expand opportunities to solve biomedical problems. The work environment is multidisciplinary and the successful candidate will have the opportunity to work among a large group of scientists of diverse interests within our group.

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Prof. Mayland Chang (mchang@nd.edu)
Department of Chemistry and Biochemistry
127 Nieuwland Science Center
University of Notre Dame
Notre Dame, IN 46556 USA

University of Notre Dame, Department of Chemistry and Biochemistry - Biochemists/Molecular

Biologists/Biotechnologist: Two postdoctoral positions suitable for someone of background in molecular biology, biochemistry or biotechnology are available. The qualified applicants will have the Ph.D. degree in one of these disciplines. The tasks involve cloning genes, expressing proteins, purifying proteins and characterizing them by performing kinetics experiments. Knowledge of enzyme chemistry is desirable, but not a requirement. The projects deal with novel antibiotic classes and mechanisms of resistance to them. The work environment is multidisciplinary and the successful candidates will have the opportunity to work among a large group of scientists of similar interests within the group.

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Prof. Mayland Chang (mchang@nd.edu) or Prof. Shahriar Mobashery (mobashery@nd.edu)
Department of Chemistry and Biochemistry
423 Nieuwland Science Center
University of Notre Dame
Notre Dame, IN 46556 USA

The Department of Chemistry, University of Toronto, invites applications for a tenure stream position at the rank of Assistant Professor or Associate Professor in the area of Experimental Physical Chemistry, including fundamental studies of materials and/or biophysical chemistry. The position start date is July 1, 2016.

Applicants must have earned a PhD by date of the appointment or soon thereafter in the broadly defined area of Physical Chemistry, a strong academic background, an excellent research record and demonstrated excellence in teaching. Successful candidates will be expected to conduct innovative research at the highest international level and to establish an outstanding, externally funded research program. Evidence of excellence in teaching will be demonstrated through teaching accomplishments, letters of reference and the teaching dossier submitted as part of the application. Candidates also must have a record of excellence in research as demonstrated by publications in top ranked and field relevant academic journals, presentations at significant conferences, and strong endorsements by referees.

Salary and rank will be commensurate with qualifications and experience.

All qualified candidates are invited to apply by clicking on the link below. Applications should include curriculum vitae, a statement of teaching philosophy and interests, and an outline of proposed research. If you have questions about this position, please contact receptn@chem.utoronto.ca. All application materials should be submitted online.

Please combine attachments into one or two clearly labeled files in PDF format. Submission guidelines can be found at <http://uoft.me/how-to-apply>.

Applicants should also arrange to have three confidential letters of recommendation sent on their behalf to receptn@chem.utoronto.ca. To ensure full consideration, applications should be received by October 1, 2015. This search will remain open until filled.

For more information about the Department of Chemistry, please visit our website, www.chem.utoronto.ca.

The University of Toronto is strongly committed to diversity within its community and especially welcomes applications from visible minority group members, women, Aboriginal persons, persons with disabilities, members of sexual minority groups, and others who may contribute to the further diversification of ideas.

All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority.

Eli Lilly Research Scientist - Organic Chemistry – Discovery Research – Full Time

Who We Are:

Lilly is a global healthcare leader that unites caring with discovery to make life better for people around the world.

We're a Fortune 500 company, determined to bring life-changing medicines to those who need them and give back to communities through philanthropy and volunteerism. To learn more about

Lilly, please visit us at www.lilly.com.

Lilly offers:

- a Purposeful Career—bringing together people who discover and deliver life-changing medicines that improve peoples' lives around the world.
- a Balance of Work and Life creating an environment for employees to be productive in both their lives and their work.
- an Opportunity for Growth—providing opportunities for each individual to develop and advance professionally.
- A Diverse Culture—committed to uniting individuals across cultures, and developing a comfortable, connected, environment that values diverse thought.

• A Vibrant Community—headquartered in downtown Indianapolis, Ind. — *Time Magazine* ranked Indianapolis a top 10 city to start a new career in. Read more about living in Indianapolis at www.downtownindy.org

We're looking for:

- recent or soon to be Ph.D. graduates or current postdoctoral fellows in the area of organic chemistry. A career at Lilly may include roles in lead generation or lead optimization in discovery research/medicinal chemistry.
- highly motivated and driven leaders
- individuals with integrity, excellence and respect for people.
- individuals who want to make a difference in someone else's life.

Roles and Responsibilities:

1. Medicinal Chemistry

- Analyze data in multiple dimensions
- Formulate and test medicinal chemistry hypotheses
- Design and execute synthetic routes to target compounds
- Prepare material for biological, toxicological and pre-clinical evaluations
- Work with external partners for purification, synthesis, and analysis
- Lead a research lab
- Work across functional groups

2. Contribute to Lilly's Research and Development Effectiveness

- Organize seminar series
- Encourage sharing different perspectives during technical discussions
- Generate new ideas or methods to resolve problems
- Reorganize or reinterpret existing data or information to develop new initiatives or different approach to problems

3. Employee Management and Development

- Mentor and coach direct reports

4. Growth in Scientific Community

- Participate in internal and external professional scientific activities.
- Build and maintain relationships with academic departments and research groups.
- Become a knowledge expert in selected areas
- Author scientific publications

Requirements:

- Ph. D. in Organic Chemistry or a related area completed by August, 2016

Additional Skills/Preferences:

- Demonstrated experience leading, managing, and/or mentoring in a lab environment
- Demonstrated proficiency with oral and written communication
- Experience working as part of a team
- Examples of insightful, analytical, conceptual, and creative scientific problem solving
- Demonstrated ability to organize, prioritize, and make decisions that drive projects
- History of networking and building relationships

Location:

- **Location** – Indianapolis, IN with possible future opportunities in San Diego, CA

Lilly is an EEO/Affirmative Action Employer, and does not discriminate on the basis of race, gender, protected veteran status, disability or any other legally protected status

University of Pennsylvania, Assistant Professor As part of a larger investment to create a new Center for Energy Research, the School of Arts and Sciences at the University of Pennsylvania seeks to add faculty to our newly formed Energy Cluster spanning the natural sciences. Following a first hire in Chemistry, we now invite applications for tenure-track assistant professor whose primary research and teaching affiliation will be in one of the following departments: Biology, Earth and Environmental Science, or Physics & Astronomy. Exceptional senior candidates will be given consideration. The successful candidate will mount an innovative program of fundamental scientific research with impact on our societal energy challenges, and in doing so will forge collaborative links with Penn scientists and engineers involved in energy research.

Applicants must apply online at <http://facultysearches.provost.upenn.edu/postings/590>. Required application materials include: curriculum vitae with a list of publications, and a research and teaching statement that includes the candidate's perspective on how she or he fits into one of the three departments and identifies potential collaborative links with other natural science departments. Applicants should also submit the names and contact information for three individuals who will provide letters of recommendation. Review of applications will begin no later than September 1st, 2015 and will continue as long as the position remains open. The School of Arts and Sciences is strongly committed to Penn's Action Plan for Faculty Diversity and Excellence and to establishing a more diverse faculty (for more information see: <http://www.upenn.edu/almanac/volumes/v58/n02/diversityplan.html>). The University of Pennsylvania is an EOE. Minorities/Women/Individuals with disabilities/Protected Veterans are encouraged to apply.

Chem-Tech International, Inc has a job opening for an entry level full-time Sales Engineer. This job consists of servicing accounts and recommending chemical treatment and/or equipment for water and water/mechanical problem using the most complete portable field lab equipment provided by Chem-Tech. This equipment consists of a Wet Test Kit and a Spectrophotometer that will enable our Representative to work hand in hand with our customers and possibly solve their problems on-site. This enables the customer to resume rapid and efficient cost effective operation. Our Representative must be able to take on a developed territory and/or develop a territory to serve the customer to the fullest of their ability. There is a training period which includes working in our lab, seeing first-hand the processing of our chemicals, and finally going into the field with a trained Representative to observe the work of chemistry, problem solving, and serving our customers to the best of our ability.

Physical Demands and Work Environment

Other requirements of the job include:

1. Be able to carry up to 60lbs (applicant needs to carry Wet Test Kit and Spectrophotometer)
2. Climbing ladders to inspect cooling towers/boilers
3. Have a valid driver's license in the state they declare residency
4. Must have an outgoing personality (work well with the public) and at the same time be aggressive in the sales area
5. Must have Bachelor's Degree with a major or minor in the sciences or Mechanical Engineering. Sales background preferred.
6. Pre-employment drug screening and background check required

Interested applicants should send a resume via e-mail to jsprang@cleanerh20.com or call (920)994-4399.

Stanford ChEM-H at Stanford University Tenure-track Faculty Position: Stanford ChEM-H is an independent institute at Stanford University, formed in partnership with the Schools of Humanities and Sciences, Engineering and Medicine. More information about the institute can be found on <https://chemh.stanford.edu/>. The Institute is seeking applicants for a tenure-track faculty position at the

junior level (Assistant or untenured Associate Professor). Applicants are expected to have earned a Ph.D. or M.D. degree in any discipline of science, engineering or medicine.

We will consider applicants knowledgeable in any frontier area of research at the interface between chemistry, biology, engineering, and medicine. In general, we give higher priority to the overall originality and promise of the candidate's work than to the sub-area of specialization.

The successful candidate will have his/her primary appointment in a department within the School of Humanities and Sciences, Engineering or Medicine. He/she will be expected to teach and/or perform clinical service within this department in a manner that is consistent with standard practices for tenure-track faculty within that department. The candidate will also be expected to develop a world-class research program. Applicants should be seeking a stimulating interdisciplinary environment in which to pursue teaching and research. We anticipate that the faculty member will develop interactions with faculty not only in his/her home department but also in other departments and Schools at Stanford and/or the Stanford Synchrotron Radiation Laboratory.

Applications should be addressed to Professors James Chen and Justin Du Bois, Search Committee Co-Chairs, and include a curriculum vitae (including research accomplishments, teaching experience, and publications), a description of future research plans, a teaching statement, and at least three letters of reference. All materials should be submitted online at <https://academicjobsonline.org/ajo/jobs/5672>. To ensure full consideration, applications should be submitted by October 15, 2015. Questions should be addressed to Professors Chen or Du Bois at chemh_info@stanford.edu

The Dore Laboratory in the Chemistry Program of the Division of Sciences at New York University Abu Dhabi seeks to appoint a Postdoctoral Associate starting September 2015. Applicants with backgrounds in synthetic organic, bioorganic, medicinal chemistry, or chemical biology are encouraged to apply. The research is aimed at developing new technology and tools for the study of biological function. Current projects include light-based methods to study developmental neurophysiology and small-molecule approaches to regulate CaaX proteases. For more information, visit <http://nyuad.nyu.edu/academics/faculty/timothy-dore.html>

Applicants must have received a Ph.D. in chemistry or related subject within the last three years or be within a few months from completion. We encourage applications from candidates with significant research experience in synthetic organic chemistry, bioorganic chemistry, medicinal chemistry, or chemical biology. Knowledge of photochemistry, molecular modeling, microscopy, molecular or cellular biology, biochemistry, or neuroscience is desired, but not required. Excellent communication skills in English, ability to work in multi-disciplinary teams, and scientific creativity are essential.

The terms of employment are competitive and include housing and educational subsidies for children. Applications will be accepted immediately and candidates will be considered until the position is filled. To be considered, all applicants must submit a cover letter, curriculum vitae, and a one-page summary of research accomplishments and interests, all in PDF format, through the NYUAD online application portal. Please visit our website at <http://nyuad.nyu.edu/about/careers/facultypositions.html> for instructions and information on how to apply. If you have any questions, please email nyuad.science@nyu.edu.

About NYUAD: New York University has established itself as a Global Network University, a multi-site, organically connected network encompassing key global cities and idea capitals. The network has three foundational degree-granting campuses: New York, Abu Dhabi, and Shanghai, complimented by a network of eleven research and study-away sites across five continents. Faculty and students will circulate within this global network in pursuit of common research interests and the promotion of cross-cultural and interdisciplinary solutions for problems both local and global.

Entering its sixth year, NYU Abu Dhabi has recruited a cohort of faculty who are at once distinguished in their research and teaching. Our students are drawn from around the world and surpass all traditional recruitment benchmarks, both US and global. NYU Abu Dhabi's highly selective liberal arts enterprise is complimented by an institute for advanced research, sponsoring cutting-edge projects across the Arts, Humanities, Social Sciences, Sciences, and Engineering.

Catalysis Science with Pacific Northwest National Laboratory is looking for a Post Doctorate RA

Job Description:

Experience in synthetic and mechanistic organometallic/inorganic chemistry and handling air-sensitive materials is required. Excellent oral and written communications skills are mandatory. Proficiency with a range of spectroscopic techniques, particularly NMR, is essential. Experience in electrochemical measurements is desirable but not required. Must have the ability to work in a highly collaborative environment

The perfect candidates would have these 3 characteristics:

Expertise in preparing and handling highly air-sensitive complexes

Experience in NMR and electrochemistry

Independent and highly motivated

Minimum Qualifications

Candidates must have received a PhD within the past five years from an accredited college or university.

Qualifications

Ph.D. in organometallic chemistry or inorganic chemistry

Equal Employment Opportunity

Pacific Northwest National Laboratory (PNNL) is an Affirmative Action / Equal Opportunity Employer and supports diversity in the workplace. All employment decisions are made without regard to race, color, religion, sex, national origin, age, disability, veteran status, marital or family status, sexual orientation, gender identity, or genetic information. All staff at the Pacific Northwest National Laboratory must be able to demonstrate the legal right to work in the United States.

About Tri-Cities

<http://www.visittri-cities.com/>

The Tri-Cities started out with 3 main communities: Kennewick, Pasco, and Richland - but the phenomenal growth of neighboring West Richland has made the area more of a "Quad-City". Located just hours from Seattle, WA and Portland, OR, the area is embraced by the beauty of a desert landscape and connected by the Columbia, Snake, and Yakima rivers. The Tri-Cities offers a multitude of recreational, cultural, and historical activities and is a great place to visit and live. We're known for our premier golf courses, award-winning wineries, unique shopping, and abundant outdoor and water recreation. Visit the link above to learn more about the various communities. PNNL is located in Richland, WA.

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 \$42,000 - \$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.
There are four annual review cycles.

Review Cycle: **February**; Opens December 1; Closes February 1

Review Cycle: **May**; Opens March 1; Closes May 1

Review Cycle: **August**; Opens June 1; Closes August 1

Review Cycle: **November**; Opens September 1; Closes November 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.