

2015 WEEKLY BULLETIN
DEPARTMENT OF CHEMISTRY, NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS
June 22, 2015

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

BIP

Meets every Friday at 2:45pm in Tech K140

Arrivals

Amir Abbasi joined the Hupp Group
Azadeh Azadbakht joined the Hupp Group
Xin Chen joined the Ratner Group
Yasemin Cimen joined the Hupp Group

Announcements

VISITING SCHOLARSHIPS AT THE TEL-AVIV UNIVERSITY AND THE WEIZMANN INSTITUTE OF SCIENCE CALL FOR PROPOSALS

APPLICATION DEADLINE: October 1, 2015

SYNOPSIS OF PROGRAM

Northwestern University has executed Memoranda of Understanding (MOU) with both the Tel-Aviv University (TAU) and the Weizmann Institute of Science (WIS) to lay a foundation for research collaborations and outcomes.

Within this framework, the Materials Research Science and Engineering Center (MRSEC), the International Institute for Nanotechnology (IIN), and the Weinberg College of Arts and Sciences (WCAS) Jointly with the Nanoscience Centers at our partner institutions, support an exchange program for faculty, postdoctoral associates, and graduate students engaged in research in science or engineering. We invite applications for \$5,000 fellowships to support visits to Tel-Aviv University or the Weizmann Institute by all members of the Northwestern community. Visits to Northwestern are supported by our partner institutes.

APPLICATION REQUIREMENTS

- Proposal for collaborative research (up to 2 pages long)
- Curriculum vitae
- Invitation from the host researcher
- Letter of support from the research advisor (students and postdoctoral fellows only)

PLEASE SEND ALL APPLICATION MATERIALS TO
Professor Tamar Seideman seideman-ofc@northwestern.edu

REPORTING REQUIREMENTS

Within 3 weeks of their return to the US, the travelers are requested to submit a short report describing their research experience.

SUPPORT INCLUDES

- Maximum individual award amount \$5,000
- US airline carrier at a coach rate should be used
- Per Diem requires pre-approval and can be approved only for travel of 15 days and longer duration (receipts are required for lodging only)
- For trips less than 15 days, original detailed receipts are required for lodging, meals and local transportation
- NSF and NU travel guidelines are applicable

Opportunities

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.

School of Chemical and Biomolecular Engineering with Georgia Institute of Technology invites applicants for a post-doctoral opportunity beginning in summer/fall of 2015. The project area is not yet defined, but could include any or several of the following areas:

- (i) CO₂ capture from air or flue gas
- (ii) enantioselective molecular catalysis (<http://www.nsf-cchf.com/>)
- (iii) heterogeneous catalysis for light alkane valorization

Interested candidates should contact Dr. Christopher Jones christopher.jones@chbe.gatech.edu. More information about Dr. Jones' work can be found at <http://jones.chbe.gatech.edu/>

Loyola University Chicago Institute of Environment Sustainability (IES) is accepting application for an Analytical Chemist. Loyola University Chicago's Institute of Environmental Sustainability (IES) is a new degree-conferring academic unit (www.luc.edu/sustainability) housed within a LEED Gold certified geothermal building which includes new state-of-the-art research laboratories with a soil and water quality analytical lab, a 3,100 sq ft greenhouse, 2 aquaponics facilities, the Searle Biodiesel Laboratory, and teaching laboratories. The research and educational opportunities in the IES are enhanced by the Loyola University Retreat and Ecology Campus (LUREC) field station where IES faculty and students engage in field courses, and have developed a sustainable farm, a biodiversity conservation program and a

major wetland restoration project. The IES seeks an Analytical Chemist to fill a full time 3-year, potentially renewable staff position within the IES, reporting directly to the IES Director.

Duties and Responsibilities:

- Manages and leads the development and coordination of the new soil and water quality analytical lab in the IES, overseeing the operations and maintenance of all analytical instrumentation therein including an IC, ICPMS, GC, C:N:H analyzer, and others.
- Develops a pricing structure and run analyses of water and soil characteristics (e.g., cation exchange capacity, texture) and pollutants (industrial waste, organics, pesticides and herbicides, heavy metals), as well as nutrients (primarily N and P) on samples for IES researchers, external NGOs, researchers, and for the IES community social justice project in the Chicago south side neighborhoods.
- Responsible for the lab operating budget, which will be initially supported by a gift to the Institute, and will be able to shift to revenue funding within the first 3-5 years.
- Manages the fiscal operations of the lab, with the assistance of the IES Budget Manager.
- Mentors a small number of graduate students on using the instrumentation, and assists with faculty research projects associated with the environmental science lab and environmental toxicology courses.
- Performs other duties as required.

Minimum Education or Experience:

Master's degree supplemented with at least 3 years of related experience in a research or science lab. A Ph.D. of highest terminal degree is preferred.

Certificates, credentials or licenses required to perform the duties of this position:

Qualifications:

- Master's degree in Chemistry, Analytical Chemistry, Environmental Chemistry or a related field is required, and a PhD is highly preferred.
- A minimum of 3 years of experience working in an analytical chemistry lab running sample analyses of soil and water, and managing the lab is strongly preferred.
- Competence in skills including maintaining complex analytical instruments, teaching students how to use the instruments, learning new protocols for sample analyses, and managing the financial revenue and operational budgets are required.
- Ability to demonstrate reliability, professional conduct, a strong work ethic, enthusiasm for environmental sustainability and excellence in informal teaching and mentoring graduate students.

For more information or to apply please visit the Loyola website:

www.careers.luc.edu/applicants/Central?quickFind=58159

Gustavus Adolphus College Department of Chemistry invites applications for a full-time one-year position of Visiting Assistant Professor beginning September 1, 2015.

Minimum Required Qualifications: We seek candidates who have an earned doctorate, but will consider candidates who have achieved ABD status. Candidates must have demonstrated excellence in teaching. A commitment to undergraduate teaching is essential; in their application candidates should discuss their commitment to teaching a student-centered undergraduate chemistry curriculum in a liberal arts environment.

Preferred Qualifications: We are interested in applicants who will complement our commitment to students and faculty from diverse cultural groups, and who will diversify the expertise and experiences represented in the department.

Major/Essential Functions: The teaching load will be seven course equivalents. Primary teaching responsibilities will include: 100-level organic chemistry lecture and associated labs, 200-level biochemistry laboratories, 100-level Principles of Chemistry laboratories, and a possible January Term experiential course determined by candidate and appropriate to the candidate's expertise.

Application and Institution Information: Electronic application is required; email application materials as PDFs to chem-search@gustavus.edu. The application materials must include a letter of application, curriculum vitae, statements of teaching philosophy and research interests, undergraduate and graduate transcripts (scanned copies acceptable), and three confidential letters of professional recommendation (sent directly from the reference or letter service). The cover letter and letters of recommendation should be addressed to:

Dr. Scott Bur, Search Committee Chair
Department of Chemistry
Gustavus Adolphus College
800 W College Ave
Saint Peter, MN 56082-1498

Application information is also available at www.gustavus.edu/jobs. For more details, visit the College's website at www.gustavus.edu/provost/newfaculty/ or contact Dr. Scott Bur at 507-933-7320 or chem-search@gustavus.edu

Review of applications will begin on July 2, 2015, and continue until the position is filled. Preference will be given to complete application files received by July 2, 2015.

The Gustavus Department of Chemistry graduates approximately 30 majors each year. The Department prepares students for continuing education in post-graduate professional programs in chemistry, environmental or health related fields. Students are engaged in research experiences both within and outside of classes.

Gustavus Adolphus College is a coeducational, private, Lutheran (ELCA), residential, national liberal arts college of 2400 students. The College maintains a longstanding commitment to excellence through diversity with a special emphasis on global engagement and service. Additionally, we strive to be a community supportive of all kinds of individuals and families. As an Affirmative Action employer, it is the policy and practice of Gustavus Adolphus College to provide equal employment opportunities for all. EOE Employer/Disabled/Vet

The Surface Chemistry Group in the Materials Science Division at Argonne National Laboratory is in search of a postdoctoral appointee. The successful candidate will enable high efficiency solar-to-fuels and solar-to-electricity conversion through new nanoscale thin films, precise few-atom clusters, surface chemical control, and interface engineering.

The appointee will advance the basic science of precision gas-phase surface synthesis (atomic layer deposition), in situ and ex situ chemical and materials characterization, as well as device fabrication and testing. This will be interdisciplinary and highly collaborative work (part of an Energy Frontier Research Center) that includes surface synthesis, materials fabrication, as well as device design and assessment. Candidates within three years of completion of their Ph.D. are eligible.

Interested candidates should send a detailed CV, along with a list of publications, to Alex Martinson martinson@anl.gov. Argonne is a U.S. Department of Energy laboratory managed by UChicago Argonne, LLC. Argonne is an equal opportunity employer, and we value diversity in our workforce.

Department of Chemistry and Biochemistry at Old Dominion University announces a tenure track opening in the broad area of Biochemistry, at the Assistant Professor level
<http://jobs.sciencecareers.org/job/368769/biochemistry-assistant-professor/>

Position is to commence as early as December 2015. Required qualifications include a Ph.D. in Chemistry, Biochemistry or closely related field and postdoctoral experience. Candidates are expected to establish a vigorous externally-funded research program involving graduate and undergraduate students and to teach Biochemistry at the undergraduate and graduate levels. Specific research interest areas include mammalian and microbial molecular biology, experimental structural biology/structure-based drug design, and biological mass spectrometry that could utilize the state-of-the-art Bruker Apex-Qe, a Hybrid Qh-FTMS with 12 Tesla magnet housed in the College of Sciences. However, applications from qualified candidates in all areas of Biochemistry are encouraged.

Applicants should submit a cover letter, curriculum vitae, a research plan (3-5 pages), a statement of teaching philosophy and interests (1 page) along with contact information for three references at <https://jobs.odu.edu> Review of applications will begin June 25 2015 and continue until the position is filled.

For further information on faculty and facilities see the department web site at <http://www.odu.edu/chemistry>. Specific additional inquiries should be addressed to Biochemistry Search Committee at chemjobs@odu.edu.

Old Dominion University is an equal opportunity, affirmative action institution. Minorities, women, veterans, and individuals with disabilities are encouraged to apply.

Department of Chemistry and Biochemistry at Northern Illinois University has an available position for a Visiting Assistant Professor for the upcoming academic year. We are looking for a person with a doctoral degree, preferably in organic chemistry, who might or might not have completed a postdoctoral appointment and is interested in gaining experience in academics.

Our department offers degrees at the doctoral, masters, and bachelors levels. We have about 50 graduate students and 200 undergraduate majors. The facilities and support staff are excellent.

It is anticipated that the position will entail teaching in our organic chemistry sequence (CHEM 330 & 331 - primarily for biology majors), teaching chemistry in society offerings (CHEM 100 - general education), and oversight of our undergraduate research seminar (CHEM 498 & 499 - undergraduate chemistry and biochemistry majors). The VAP will also perform research in collaboration with our existing research programs.

The compensation for the appointment will be highly competitive. The appointment extends from August 16, 2015 to May 15, 2016. A one year extension is possible, pending mutual agreement of the VAP and NIU.

Please provide a letter of interest and a curriculum vita. In addition, the contact information and professional relationship of at least three references are requested. The applicant should contact: Jon W. Carnahan carnahan@niu.edu (815)753-1131

Jon W. Carnahan, Professor and Chair
Department of Chemistry and Biochemistry
Northern Illinois University DeKalb, IL 60115

8th Negishi-Brown Lectures at Purdue University Prof. Ei-ichi Negishi will turn 80 on Tuesday, July 14th and we are planning a celebration to mark this historic occasion and acknowledge Ei-ichi's monumental contributions to chemistry.

Dates of the event: Monday, July 13 and Tuesday, July 14, 2015

Time: Lectures begin each day at 9:00am

Location: Wetherill Laboratory of Chemistry (WTHR) 200

All interested students, faculty, and scientists are welcome to attend. Registration is free, and includes lunch for all participants who register by Monday, July 6. We also encourage student participants to present their recent works at our poster session and competition on Tuesday, July 14, with prizes awarded for the best posters. Deadline for the poster registration is Tuesday, July 7.

For the detailed program, registration, submission of posters, driving directions, and more information about the 8th Negishi-Brown Lectures, please visit our website at:

<https://www.chem.purdue.edu/negishibrown/>. We hope that you will be able to join us in celebrating one of the pioneers in cross-coupling reactions.

The 6th Chicago Organic Symposium will be held this year at the University of Illinois at Chicago on Saturday, July 11, 2015. The symposium organizers would like to invite you, your students, and your colleagues to this exciting event that brings together organic chemists in the Chicago area to celebrate their research achievements, spark new ideas, and bolster collaboration. Through several highly successful prior iterations, organized by Karl Scheidt, George Sheppard, Tom Driver, and Brandon Ashfeld, the COS has moved between Northwestern, UIC, and Notre Dame and has achieved participation from a variety of local academic institutions such as Northwestern, UIC, University of Chicago, Notre Dame, Loyola Chicago, Northern Illinois University, UW Madison, Indiana University, and Wayne State, as well as local chemical companies such as AbbVie, Eli Lilly, Astellas, Kalexsyn, and Vertellus. This year, we hope to continue to increase participation and a sense of community between organic chemists in the Chicago area.

The program for the 6th Chicago Organic Symposium boasts a stellar assembly of speakers from both academia and industry including Profs. Jared Lewis (U of C), Justin Mohr (UIC), Anita Mattson (OSU), Chad Eichman (Loyola Chicago), Karl Scheidt (Northwestern), Viresh Rawal (U of C), Gary Molander (UPenn), Dr. Steve Fidanze (AbbVie), and Dr. Rebecca Ruck (Merck). Part of the reason this symposium has been so successful in the past is the outstanding poster presentations by graduate students, post-doctoral researchers, and industrial attendees. To continue this valuable tradition, please encourage your coworkers to participate by submitting an abstract through the symposium website.

Please register by July 3, 2015. There is no charge for the event but we would like to know how many people to expect. If you are interested in presenting a poster, please also submit an abstract by June 26, 2015. More detailed information on registration and abstract submission can be found at <http://www2.chem.uic.edu/COS>.

If you have any questions, please feel free to contact the organizers at chicago.organic.symposium@gmail.com.

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.

The Stanford Cancer Imaging Training (SCIT) Program, funded by the National Cancer Institute, aims to train the next generation of researchers in the development and clinical application of advanced techniques for cancer imaging. Our coursework, rich mentored training opportunities, and outstanding resources, provide an active, vibrant program that attracts students nationwide. Graduates from our program are highly sought after, filling faculty and industry research positions internationally. This two-year training program only accepts US citizens, non-citizen nationals, or permanent residents, and will help develop a US workforce to make progress in the battle against cancer. Stanford Cancer Imaging Training Program Applications are now being accepted (see details at <http://scitprogram.stanford.edu/apply>) Applicants must have a PhD or MD. Inquiries to Sofia Gonzales (sofias@stanford.edu)

Postdoctoral Fellow with the University of Missouri Any candidate with experience in inorganic or organometallic chemistry would be considered, but candidates with backgrounds in *electrochemical catalysis* or *carbon dioxide activation* would be a plus. This position will likely be funded through a collaborative NSF funded Center for Carbon Capture and Conversions (C4) (<http://www.brown.edu/research/projects/capture-and-conversion-of-co2/>), though sufficient startup funds are available to continue the position even if this center doesn't get renewed in Phase II.

Professor Wesley Bernskoetter will be bringing a wonderful group of current personnel from Brown, but is looking to expand the program with talented new hires. The start date is flexible, but summer-early fall is preferred. Any candidates who might be interested in a position are encouraged to send a CV and cover letter to wb36@brown.edu

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.