

**2015 WEEKLY BULLETIN**  
**DEPARTMENT OF CHEMISTRY, NORTHWESTERN UNIVERSITY**  
**EVANSTON, ILLINOIS**  
**July 6, 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**

We did not have any new arrivals this week

**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](mailto: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

**Department of Chemistry and Biochemistry at The University of Southern Mississippi** seeks applicants for a full-time, 12-month position as senior laboratory coordinator and instrumentation manager in the Department of Chemistry and Biochemistry in the College of Science and Technology to begin July 15, or August 1, 2015.

The person selected for this position will supervise the operation of and instruct the junior/senior-level chemistry teaching laboratories; work with faculty to develop and implement new laboratory activities; maintain and repair, and instruct personnel and students in the operation of major departmental instrumentation.

Duties include the following:

- Adheres to University and department policies, procedures and regulations, and actively participates in initiatives designed to foster student success and retention
- Instructs junior/senior-level chemistry teaching laboratories in analytical chemistry, instrumental analysis, inorganic chemistry and physical chemistry; collects and provides faculty with requisite assessment data; maintains safe and clean teaching lab facilities
- In consultation with the respective lecture course instructors, reviews laboratory textbooks and selects experiments to be conducted in laboratory sections
- Performs experiments before they are used in the teaching labs, modifies procedures as necessary to conform to departmental safety standards and available equipment, and produces instructional written materials for use by the students
- Purchases, maintains and keeps an inventory of chemical supplies, glassware, miscellaneous consumables and small equipment required to perform the experiments in the junior/senior-level teaching labs
- Directly supervises graduate teaching assistants for junior/senior chemistry teaching laboratories and carries out supervisory responsibilities in a timely, fair and objective manner
- Maintains and repairs teaching and multi-user departmental instruments and equipment (e.g. NMR, EPR, IR, UV-VIS, mass spec and maintains safe and clean instrument lab facilities)

- Instructs faculty, staff and students in the use of multi-user departmental instruments and equipment
- Assists in the inventory control of multi-user departmental instruments and equipment

Minimum Qualifications: M.S. degree with at least 18 credit hours of graduate courses in chemistry or related discipline

- Ability to read, analyze and interpret common scientific and technical journals, financial reports and legal documents
- Ability to respond to common inquiries or complaints from customer, regulatory agencies or members of the business community
- Ability to write technical laboratory protocols that conform to prescribed style and format
- Ability to effectively present information to students, university staff and faculty as well
- Ability to comprehend and apply principles of advanced calculus, modern algebra and statistical theory
- Ability to work with concepts such as limits, rings, quadratic and differential equations, and proofs of theorems
- Ability to apply principles of logical or scientific thinking to wide range of intellectual and practical problems
- Ability to deal with nonverbal symbolism (formulas, scientific equations, graphs, etc.) in its most difficult phases
- Ability to deal with a variety of abstract and concrete variables
- Maintain safe and clean teaching and instrumental lab environment

Preferred Qualifications: Experience with operation and repair of instrumentation such as NMR, IR, UV-Vis, EPR, Mass Spe.

Experience with junior/senior-level chemistry laboratory teaching

Special Instructions to Applicants: Official transcripts are required before an offer can be made.

For more information about the position or to apply go to <https://jobs.usm.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](mailto: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.

**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](http://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](http://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](mailto: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](http://www.gustavus.edu/jobs). For more details, visit the College's website at [www.gustavus.edu/provost/newfaculty/](http://www.gustavus.edu/provost/newfaculty/) or contact Dr. Scott Bur at 507-933-7320 or [chem-search@gustavus.edu](mailto: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](mailto: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.

**8<sup>th</sup> Negishi-Brown Lectures at Purdue University** Prof. Ei-ichi Negishi will turn 80 on Tuesday, July 14<sup>th</sup> 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 8<sup>th</sup> 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.

**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).

**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](mailto: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](http://www.nationalacademies.org/rap).