

**2015 WEEKLY BULLETIN**  
**DEPARTMENT OF CHEMISTRY, NORTHWESTERN UNIVERSITY**  
**EVANSTON, ILLINOIS**  
**February 9, 2015**

Tuesday February 10<sup>th</sup>:            *Faculty Lunch Seminar: George Schatz*  
Tech K140  
12:00 – 1:00pm

*CIERA Seminar: Ben McCall*  
Tech F160  
4:00 – 5:00pm

Thursday February 12<sup>th</sup>:        *Special Seminar: Matt Brown*  
Ryan 2003  
4:00 – 5:00pm

Friday February 13<sup>th</sup>:            *Chemistry Colloquium: Andrei Tokmakoff*  
Tech LR3  
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 2:45pm in Tech K140

**Arrivals**

Jaekwon Do joined the Odom Group  
Mark Lipke joined the Stoddart Group  
Sanghee Nah joined the Harel Group  
Nicola Webb joined the Silverman Group  
Hang Xing joined the Mirkin Group

**Announcements**

**Opportunities**

**University of Twente – the Netherlands (Doctoral Student Opportunity)** Professor Jurriaan Huskens at the University of Twente in The Netherlands is seeking a PhD student to work on multivalent interactions on surfaces as part of a European Union network (<http://www.utwente.nl/tnw/mnf/vacancies/>). He is hoping that someone can start the project soon after he completes the selection process. Candidates should possess an MSc degree in Chemistry, Chemical Engineering, or Materials Science by the time of employment. Extensive pre-existing and hands-on experience with organic synthesis, surface functionalization and the appropriate analytical techniques is also required. Please indicate your interest by sending a CV to Professor Huskens at: [j.huskens@utwente.nl](mailto:j.huskens@utwente.nl)

Description: For the European project “Multivalent Molecular Systems for Innovative Applications” we are looking for an enthusiastic PhD student. In this project, we will develop surface gradients of biologically relevant receptors and ligands. The gradient display, i.e., the spatial variation of surface density of the receptor/ligand, will allow variation of and unified assessment of the binding properties of these interactions. The project has both important fundamental and practical implications. Gradient-wise multivalent recognition allows the detection of so-called superselectivity, i.e. the non-linear response of binding partners in their multivalent recognition to the immobilized receptor/ligand. When combined with proper signal transduction mechanisms in an integrated device, this will offer new opportunities in biosensing.

**The Hope College Chemistry Department** invites applications for Analytical or Physical Chemistry and Organic or Biochemistry Visiting Professorships to fill 2 one-year, non-tenure track, full-time positions for academic year 2015-16. Candidates should have a Ph.D. or equivalent experience. Responsibilities include teaching lectures and/or laboratories in respective disciplines, and possibly General Chemistry. Application details are at [www.hope.edu/employment/faculty](http://www.hope.edu/employment/faculty). Review of applications begins March 1, 2015. Hope College is a Christian coeducational, residential liberal arts undergraduate college affiliated with the Reformed Church in America located in Holland, Michigan. Additional information about Hope College can be found at [www.hope.edu](http://www.hope.edu)

**Department of Chemistry and Biochemistry, University of Toledo** Applications are sought for an exceptional individual to join the faculty at the tenured rank of associate or full professor and serve as department chair as of July 1, 2015. The successful candidate is expected to have an outstanding record of teaching and research accomplishments in any area of chemistry or biochemistry. The new chair will be expected to be a visionary leader to build on the department's strengths in teaching and research, expand external and inter-disciplinary programs, and foster the growth of the new School of Green Chemistry and Engineering.

The University of Toledo ([www.utoledo.edu](http://www.utoledo.edu)) was founded in 1872 and is a comprehensive state institution with over 20,000 students. The University has 12 academic colleges and professional programs located on a suburban main campus and a separate health sciences campus, home to the medical college. The chair oversees an enrollment of 5000 undergraduate and graduate students in chemistry classes each semester, including 125 B.A. and B.S. majors and 75 graduate students in M.S. and Ph.D. programs. The B.S. degrees in chemistry and biochemistry are certified by the American Chemical Society. The department ([www.utoledo.edu/nsrn/chemistry](http://www.utoledo.edu/nsrn/chemistry)) has 25 faculty members and a support staff of 12, including a master glassblower, 5 instrumentation and electronics specialists, and 3 stockroom personnel.

Wolfe Hall, built in 1997, and Bowman-Oddy Laboratories, renovated within the last 10 years, house the department's research and teaching activities. The department and the college's core instrumentation facility ([www.utoledo.edu/nsrn/ic](http://www.utoledo.edu/nsrn/ic)) provide exceptional instrumentation for teaching and research, and are internationally known for research in small molecule and macromolecular crystallography as a State of Ohio Center of Excellence. Faculty are funded through grants from NIH, NSF, DOE, DoD, and industrial partners.

The Chair is the chief administrative officer of the department and reports to the College Dean. The Chair is responsible for successful planning, organization, policy development, implementation and direction of all aspects of the department, including personnel management within the unit. The Chair is expected to ensure that students have a high quality experience that exemplifies the values of the institution. The chair also is expected to manage the resources of the department in a fiscally responsible manner through compliance with the University's budgetary process. Further elaboration of responsibilities is outlined in university policy #3364-72-05 ([www.utoledo.edu/policies](http://www.utoledo.edu/policies)).

The University offers competitive salaries and excellent start-up and benefits packages. Qualified applicants must have a Ph.D. in Chemistry or related field. Applicants must submit as a single pdf file to <https://jobs.utoledo.edu>, which should include a cover letter describing a vision for departmental leadership and your qualifications for that role, a current curriculum vitae, a summary of past research and teaching accomplishments and future directions, and a list of three references who are able to address your qualifications for the position. Review of applicants will begin on January 26, 2015 and continue until the position is filled. The Department encourages applications from minorities, women and persons with disabilities. The University of Toledo is an Affirmative Action/Equal Opportunity Employer *MIFIDN*.

**The 7<sup>th</sup> Yao Yuan Biotech-Pharma Symposium**, to be held on April 18<sup>th</sup>, 2015 (Saturday) at College of Pharmacy Auditorium, University of Illinois at Chicago.

This is the seventh in a series of annual Yao Yuan conferences, and this year is co-sponsored with University of Illinois at Chicago, College of Pharmacy. With a theme of “At the Interface of Chemistry & Biology for Drug Discovery”, this year’s event is aimed at highlighting ground-breaking chemical biology approaches to dissect disease processes and impact drug discovery. Continuing with last year’s emphasis on students, there will be a poster session with SynChem, Inc.-sponsored awards and a panel discussion relevant to students hoping to find a future in drug discovery.

All poster presentations submitted before March 28, 2015 will be entered for selection for a “SynChem Award” that will be reviewed by a team of outstanding experts in pharmaceutical discovery. One 1<sup>st</sup> and two 2<sup>nd</sup> place award winners will be selected with an honorarium of \$500 and \$250, respectively. The 1<sup>st</sup> place winner will be invited to give an oral presentation.

Time: April 18, 2015 (Saturday)

Venue: University of Illinois at Chicago, College of Pharmacy Auditorium

Address: 833 South Wood St, Chicago, IL 60612

Deadline for Poster Submission: March 28, 2015

Registration: [http://yypharm.org/?q=Conf\\_7thSymposium](http://yypharm.org/?q=Conf_7thSymposium)

Parking Map: <http://yypharm.org/UICparkingMap.pdf>

#### Confirmed Speakers:

- Chuan He, John T. Wilson - Distinguished Service Professor and HHMI Investigator, The University of Chicago
- Neil L. Kelleher - Walter and Mary Elizabeth Glass Professor, Northwestern University
- Mark Murcko - Former CTO of Vertex, Co-inventor of Three Marketed Drugs (Agenerase, Lexiva, Incivek) and Many Drug Candidates; Principal at Disruptive Biomedical, LLC; Professor, Massachusetts Institute of Technology & Northeastern University.
- Andrew Myers - Amory Houghton Professor of Chemistry & Chemical Biology, Harvard University
- Ed Reilly - Sr. Research Fellow & Project Director, AbbVie, Inc.

This event will be a valuable opportunity for learning amongst professionals, academicians and students. The standard registration fee for this event is \$25 for professionals and \$10 for students, for covering lunch, snacks, and coffee. Please register at: [http://yypharm.org/?q=Conf\\_7thSymposium](http://yypharm.org/?q=Conf_7thSymposium) ASAP for early bird discount (\$15 before February 28, \$20 before March 31). Relevant discount options will be removed from a pull down menu at the registration site after these dates. Attached please find a conference flyer for your reference. Thank you and look forward to an exciting symposium.

**The Department of Energy's (DOE) Office of Science** is pleased to announce that the Office of Science Graduate Student Research (SCGSR) program is now accepting applications for the 2015 solicitation. Applications are due 5:00pm ET on Tuesday April 14, 2015.

The SCGSR program supports supplemental awards to outstanding U.S. graduate students to conduct part of their graduate thesis research at a DOE national laboratory in collaboration with a DOE laboratory scientist for a period of 3 to 12 consecutive months—with the goal of preparing graduate students for scientific and technical careers critically important to the DOE Office of Science mission.

The SCGSR program is open to current Ph.D. students in qualified graduate programs at accredited U.S. academic institutions, who are conducting their graduate thesis research in targeted areas of importance to the DOE Office of Science. The research opportunity is expected to advance the graduate students' overall doctoral thesis while providing access to the expertise, resources, and capabilities available at the DOE laboratories. The supplemental award provides for additional, incremental costs for living and travel expenses directly associated with conducting the SCGSR research project at the DOE host laboratory during the award period.

The Office of Science expects to make approximately 100 awards in 2015, for project periods beginning anytime between October 2015 and September 2016.

The 2014 program solicitation resulted in awards to 65 graduate students from 50 different universities to conduct thesis research at 15 DOE national laboratories. Detailed information about the program, including eligibility requirements and access to the online application system, can be found at: <http://science.energy.gov/wdts/scgsr/>.

The SCGSR program is sponsored and managed by the DOE Office of Science's Office of Workforce Development for Teachers and Scientists (WDTS), in collaboration with the six Office of Science research programs offices and the DOE national laboratories, and the Oak Ridge Institute of Science and Education (ORISE).

For any questions, please contact the SCGSR Program Manager, Dr. Ping Ge, at [sc.scgsr@science.doe.gov](mailto:sc.scgsr@science.doe.gov).

### **One-year Postdoctoral stipend in Organic Chemistry at the University of Gothenburg**

Project: Expanding the toolbox for organic synthesis – novel reactions utilizing divalent and trivalent lanthanide reagents

Our research is focused on the development of new lanthanide reagents for organic synthesis. We have previously developed a powerful reducing reagent based on samarium(II) iodide (SmI<sub>2</sub>), water and an amine. Currently we are developing processes for the substitution of aliphatic fluorines utilizing di- and/or tri-valent lanthanide reagents. The continuation of the project involves mechanistic investigations and further method developments towards catalytic processes.

Recent publications see *Angew Chem Int Ed* 2013, 52, 12073; *Chem. Commun*, 2013, 49, 1826; *Chem. Eur. J.* 2015, in press.

Qualifications: Achieved PhD in organic chemistry

Criteria:

- Theoretical and practical knowledge and interest in synthetic organic chemistry are eligible qualifications.
- Experience from work under inert atmosphere is considered advantageous
- A PhD closely related to the project is considered an additional qualification as well as experience of experimental work in organic synthesis.
- The applicant's ability to work independently as well as in collaboration with other group-members, e.g. PhD and master students.
- Previous experience of fluorine chemistry as well as from the use of lanthanide reagents are not required

Period: 12 month starting in the spring of 2015

Net salary: 240 000SEK/year (approx. 2 000 euros/month)

Application deadline 15 February 2015

Attach attested documents including list of qualifications (CV), copy of examination certificates, a copy of the PhD thesis (or equivalent), service certificates, a personal letter, two letters of recommendations (could be sent directly to Göran Hilmersson) and other documents deemed important by the applicant.

For further information please contact Professor Göran Hilmersson, Tel: +46 (0)31-786-9022 or [hilmers@chem.gu.se](mailto:hilmers@chem.gu.se)

**Merck Summer Internships in Chemistry** - We are pleased to announce the 2015 Merck Chemistry Summer Internship Program. This year's program provides internships in Analytical, Discovery, Process, and Structural Chemistry, and are available at the Boston (MA), Kenilworth (NJ), Rahway (NJ) and West Point (PA) research sites.

Merck Chemistry interns will each be paired with an experienced mentor, and will work side-by-side with the mentor on a cutting edge drug discovery program. During the course of the summer, interns will learn about drug discovery, make contributions to important programs, and generate results that may be included in future publications. They will also make many valuable contacts in the industry.

Internships typically start in early June, and run 9 – 11 weeks. Summer interns are paid a competitive stipend, and are also provided with a variety of additional benefits.

Students may apply at Merck's external career [website](#). In the search box, they should enter the following codes to find postings for specific areas. The job postings provide additional information on required qualifications, and on the details of the internships.

Analytical Chemistry – ADM006473

Discovery / Process Chemistry – ADM006480

Structural Chemistry – ADM006491

The application deadline is February 15<sup>th</sup>, 2015.

**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).