

**2018 WEEKLY BULLETIN**  
**DEPARTMENT OF CHEMISTRY, NORTHWESTERN UNIVERSITY**  
**EVANSTON, ILLINOIS**  
**February 5, 2018**

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

Tuesday February 6<sup>th</sup>:            *Faculty Lunch Seminar: TBD*  
Tech K140  
12:00-1:00pm

Friday February 9<sup>th</sup>:            *Department of Chemistry Colloquium:*  
*Aaron Esser-Kahn, University of Chicago*  
Tech LR3  
4:00-5:00pm

**SAVE THE DATE: Mark A. Ratner Series of Scholars April 9, 2018**

Please save the date for the inaugural *Mark A. Ratner Series of Scholars* lecture, given by Rachel Armstrong, Professor of Experimental Architecture at Newcastle University, on the afternoon of April 9th. The time and place will be determined soon.

See Prof. Armstrong's TED talk here:  
[https://www.ted.com/talks/rachel\\_armstrong\\_architecture\\_that\\_repairs\\_itself](https://www.ted.com/talks/rachel_armstrong_architecture_that_repairs_itself)

**BIP**

BIP meets every Friday in Tech K140 at 11:00am

**Arrivals**

Vitor Brasiliense joined the VanDuyne Group  
Richard Squitieri joined the Scheidt Group  
Rosina Wu joined the Schatz Group  
Weilong Zhang joined the Poepfelmeier Group

**Opportunities**

**Department of Chemistry and Biochemistry at Duquesne University, located in Pittsburgh, Pennsylvania** is accepting applications for a postdoctoral position in solid-state chemistry. The research project includes the structural and physicochemical characterization of new, multinary chalcogenides with promising infrared nonlinear optical properties, among others. A variety of synthetic methods will be pursued to prepare these materials as microcrystalline powders and single crystals, such as traditional high-temperature solid-state synthesis, polysulfide flux synthesis, iodine vapor transport and Bridgman growth. Characterization methods will include, but are not limited to, powder and single crystal X-ray diffraction, solid-state UV/Vis/NIR diffuse reflectance spectroscopy, thermal analysis, scanning electron microscopy and energy dispersive spectroscopy. Qualified applicants should possess a Ph.D. degree

before they begin the position. A background in solid-state chemistry, condensed matter physics or materials science and experience using single crystal X-ray diffraction is essential. Experience performing Reitveld refinements (GSAS or other program) and/or DFT calculations (WIEN2K or other program) is desirable, but not necessary. Other skills that would be of use for this project include the ability to work with data obtained via neutron powder diffraction, as well as magnetic, nonlinear optical and electrical property measurements. Interested applicants should send a complete resume and a short cover letter to Professor Jennifer A. Aitken via email as soon as possible, [aitkenj@duq.edu](mailto:aitkenj@duq.edu). Three letters of recommendation may be requested from applicants at a later date, but should not be sent with these initial application materials. The e-mail should have the subject heading "Solid-State Postdoc Position – Applicants last name".

**Washington State University** is seeking qualified candidates for a permanent full-time tenure track faculty position as an Associate Professor or Full Professor in the Department of Chemistry at the WSU Main Campus in Pullman, Washington.

In this renewable joint position with Pacific Northwest National Laboratory, you will also serve as the Director of the Institute of Nuclear Science and Technology. This recently formed Institute consolidates the national and international leadership found at WSU and PNNL within the domain of nuclear science and technology, particularly as it pertains to nuclear forensics, environmental remediation and waste storage, and the fate of materials in radiation environments. With major institutional investments, the Institute is elevating the scientific and technical impact of nuclear research by leveraging the unique facilities and complementary capabilities between WSU and PNNL to build leadership and signature programs in nuclear science.

The Director will help shape the direction and lead the growth of the Institute, engaging with partners, recruiting a diverse group of new members, and establishing and nurture collaborative relationships with non-WSU members.

Applicants with a Ph.D. in Chemistry or a related discipline, an academic research program related to Chemistry in Nuclear Science and Technology, the ability to teach graduate and undergraduate courses in chemistry (including service courses), and excellent management and communication skills are strongly encouraged to apply.

The full posting is at: <https://www.wsujobs.com/postings/35783>

**Northwestern University SQI – BioNanotechnology** Reporting to the Core Facility Director, the Assistant Core Scientist is responsible for ensuring the completion of research projects within the Peptide Synthesis Core Facility, which is part of the Simpson Querrey Institute (SQI). The Assistant Core Scientist provides services and consultation to researchers and investigators, facilitates highly technical and specialized scientific research, and guides the Core in relevant areas to ensure consistent, high quality service for the research community.

Key responsibilities include design and execution of peptide synthesis, organic synthesis, HPLC purification, mass spectrometry and other related laboratory duties in a service-based environment. Independently conducts experiments, carries out procedures and processes, and analyzes data. Troubleshoots and revises existing methodologies and develops new experimental methodologies. Provides user support, training, and consultation with graduate students, postdoctoral researchers, and principle investigators.

May participate in grant writing as well as marketing and outreach programs for the facility and may assist in the development and implementation of GLP/GMP protocols SQI is headquartered on the Chicago campus and manages additional laboratories on the Evanston campus. The Institute includes the

Center for Regenerative Nanomedicine (CRN), the Center for Bio- Inspired Energy Science (CBES), and the Center for Bio-Integrated Electronics (CBIE). CRN is supported by an endowment provided to Northwestern by the Querrey Simpson Charitable Foundation, CBES is supported by an Energy Frontier Research Centers grant from the Department of Energy, and CBIE is supported by additional endowment funds.

*\*A cover letter is required for full consideration\**

*Please Note: This candidate will work in a chemistry laboratory environment. Occasionally a flexible work schedule may be required.*

Northwestern University job ID# 32239

[https://careers.northwestern.edu/psp/hr92prod\\_er/EMPLOYEE/HRMS/c/HRS\\_HRAM.HRS\\_APP\\_SCHJOB.GBL?Page=HRS\\_APP\\_JBPST&Action=U&SiteId=1&FOCUS=Employee&JobOpeningId=32239&PostingSeq=1](https://careers.northwestern.edu/psp/hr92prod_er/EMPLOYEE/HRMS/c/HRS_HRAM.HRS_APP_SCHJOB.GBL?Page=HRS_APP_JBPST&Action=U&SiteId=1&FOCUS=Employee&JobOpeningId=32239&PostingSeq=1)

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**The College of Lake County** is currently searching for one full-time faculty member to be housed in the Biological & Health Sciences division. Responsibilities for this position include teaching courses in the chemistry department. This position will be involved in the instruction of first and second year college level courses to a diverse student body during daytime, evening, and Saturday classes at our main campus, extension sites and local business and industry sites. The faculty member will develop, prepare, and revise instructional materials as well as participate in program evaluation and curriculum planning and development. The instructor will participate in department, division, and general faculty meetings, serve on division and college committees, and participate in other forms of college service. Instructors are required to maintain an active program of professional development related to institutional objectives. The instructor will utilize appropriate technology to deliver instructional materials, maintain grades, provide timely communications with students, etc. The instructor shall maintain appropriate office hours for student access. Maintains current knowledge of subject matter via professional organization membership, attendance of seminars, conferences and classes, and professional publications. There is

potential for the instructor to lead efforts for increasing course offerings and growing enrollments at the Lakeshore Campus. More information can be found at: <https://jobs.clcillinois.edu/postings/9842>.

**PhD Organic Medicinal Chemist—PTC Therapeutics** The expansion of discovery research at our South Plainfield, NJ research facility has resulted in the creation of additional positions for PhD Organic Medicinal Chemists. Selected candidates will be responsible for the design and synthesis of novel pharmacologically active compounds using synthetic organic and medicinal chemistry techniques. For more information about PTC Therapeutics visit [www.ptcbio.com](http://www.ptcbio.com).

Requirements:

- Recent completion/soon to be completed PhD in organic chemistry, or PhD in organic chemistry and post-doctoral position
- Thorough knowledge of the practical and theoretical aspects of synthetic organic chemistry, including reaction mechanisms, multi-step organic chemistry, modern analytical techniques for compound purification and characterization, and database searching techniques for relevant literature and reaction precedents
- Demonstrated record of achievement as reflected by publications in peer-reviewed journals or presentations at chemistry focused conferences/events

For interested applicants, please send a resume and brief research summary to Jigar Patel ([jigar.patel@ptcbio.com](mailto:jigar.patel@ptcbio.com)).

\*Please indicate your current citizenship and visa requirements

**University of San Diego** is accepting applications for a Postdoctoral Researcher Position in biological soft matter physics. Excellent candidates are invited to apply for a postdoctoral researcher position in the Robertson-Anderson lab in the Physics and Biophysics Department at the University of San Diego. The Robertson-Anderson lab specializes in understanding the molecular-level dynamics that give rise to novel physical properties present in soft biological materials. We develop and use force spectroscopy and fluorescence microscopy techniques to characterize molecular transport and microrheological properties of these materials. We also aim to develop new bio-inspired composite materials with novel emergent properties. The open position is for a cutting-edge Air Force project to elucidate the molecular dynamics governing DNA-based composite biomaterials. The postdoc will be responsible for developing instrumentation/techniques as well as DNA purification and fluorescence assays; and designing and executing microrheology experiments and analysis. Candidates should have experience with force spectroscopy and image analysis and be well-versed in Matlab and Labview. Knowledge/experience with soft matter physics and molecular biochemistry techniques is preferred. University of San Diego is a primarily undergraduate institution so the postdoc will be expected to help advise undergraduate researchers, and will have opportunities to teach depending on interest and research progress. Candidates should have a PhD in physics although related doctoral degrees will be considered. Applications should include a cover letter, CV, and 3 letters of recommendation. All materials should be emailed to [randerson@sandiego.edu](mailto:randerson@sandiego.edu). Applications will be considered until the position is filled.

**Physics and Biophysics Department at the University of San Diego.** Excellent candidates are invited to apply for a postdoctoral researcher position in the Robertson-Anderson lab in the Physics and Biophysics Department at the University of San Diego. The Robertson-Anderson lab specializes in understanding the molecular-level dynamics that give rise to novel physical properties present in soft biological materials. We develop and use force spectroscopy and fluorescence microscopy techniques to characterize molecular transport and microrheological properties of these materials. We also aim to develop new bio-inspired composite materials with novel emergent properties. The open position is for a cutting-edge Air Force project to elucidate the molecular dynamics governing DNA-based composite biomaterials. The postdoc will be responsible for developing instrumentation/techniques as well as DNA purification and fluorescence assays; and designing and executing microrheology experiments and

analysis. Candidates should have experience with force spectroscopy and image analysis and be well-versed in Matlab and Labview. Knowledge/experience with soft matter physics and molecular biochemistry techniques is preferred. University of San Diego is a primarily undergraduate institution so the postdoc will be expected to help advise undergraduate researchers, and will have opportunities to teach depending on interest and research progress. Candidates should have a PhD in physics although related doctoral degrees will be considered. Applications should include a cover letter, CV, and 3 letters of recommendation. All materials should be emailed to [randerson@sandiego.edu](mailto:randerson@sandiego.edu). Applications will be considered until the position is filled.