

**2018 WEEKLY BULLETIN**  
**DEPARTMENT OF CHEMISTRY, NORTHWESTERN UNIVERSITY**  
**EVANSTON, ILLINOIS**  
**October 1, 2018**

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

- Tuesday October 2<sup>nd</sup>:            *Faculty Lunch Seminar: Will Dichtel*  
Tech K140  
12:00-1:00pm
- Wednesday October 3<sup>rd</sup>:        *NUBoND Seminars:*  
*Professor Malika Jeffries-EL, Boston University*  
Ryan 4003  
4:00-5:00pm
- Thursday October 4<sup>th</sup>:         *NUBoND Seminars:*  
*Professor Malika Jeffries-EL, Boston University*  
Tech L211  
4:00-5:00pm
- Friday October 5<sup>th</sup>:            *Department of Chemistry Colloquium:*  
*Hongkun Park, Harvard University*  
Tech LR3  
4:00-5:00pm

**Arrivals**

Dolev Rimmerman joined the Chen Group

**BIP**

BIP returns on Friday October 5th at 10:00am in Tech K140

**Announcements**

**The 9<sup>th</sup> Chicago Organic Symposium (COS)** will be held this year at Northwestern University on Saturday, October 20, 2018. This is a free event that serves to highlight the outstanding community of organic chemists in the Chicago area and provide an opportunity to discuss scientific achievements, inspire new research, and promote collaboration.

Established in 2009 by Karl Scheidt (Northwestern), George Sheppard (AbbVie), and Tom Driver (UIC), the Chicago Organic Symposium has become a uniquely important event in the Chicago area, with prior symposia at Northwestern, UIC, Notre Dame, and Loyola University. This year, we welcome outstanding speakers from academia and industry including Leslie Aldrich (University of Illinois at Chicago), James Devery (Loyola University), Guangbin Dong (University of Chicago), Nicola Pohl (University of Indiana), Russell Cink (AbbVie), David Hays (3M), and Phieng Siliphaivanh (Merck).

A major component of our success in the past is the outstanding poster presentations by graduate students, post-doctoral researchers, and industrial attendees. We will select 3 poster abstracts for short (10-minute) talks that will take place during the morning session.

This is a free event, but we do ask that you register at our symposium website. Poster abstracts may also be submitted here, with a poster abstract deadline of Monday, October 10.

<https://sites.northwestern.edu/cos2018/>

If you have any questions, please feel free to contact the organizers at [jkalow@northwestern.edu](mailto:jkalow@northwestern.edu). We look forward to seeing you on October 20th!!

### **Opportunities**

**Loras College** invites applications for a full-time, tenure-track biochemistry faculty position at the rank of Assistant Professor beginning August 2019 in the Division of Molecular, Life, and Health Sciences. The successful applicant will demonstrate teaching excellence in the two-semester biochemistry sequence, general chemistry, and in our general education program, conduct research involving undergraduates, and support the mission of the College.

**EDUCATION AND EXPERIENCE.** Doctorate in biochemistry, demonstrated commitment/capacity to teach both major and non-major undergraduates, and ability to involve undergraduates in research required. Postdoctoral research, teaching experience, and health-related research preferred.

**DIVISION OF MOLECULAR, LIFE and HEALTH SCIENCES** has 14 full-time faculty members and a full-time laboratory technician. The division offers undergraduate course work in the academic areas of Biochemistry, Biology, Chemistry, Kinesiology, and Neuroscience. The biochemistry curriculum includes a four semester capstone seminar series that supports the student thesis requirement. The program is supported by an active alumni network and has instructional spaces that support modern teaching pedagogy. The division has extensive instrumentation including a 300 MHz broadband NMR with multinuclear probe, triple quad GC/MS, FTIR, HPLC, spectrofluorometer plate reader, UV-Vis spectrometers, and inverted microscope with epifluorescence, CCD camera, and acquisition/analysis software. All students have college provided laptop computers, which are integrated into classes and laboratories.

**COMPENSATION.** Commensurate with qualifications, education and experience. Fringe benefits include medical/dental/life/disability insurance, flexible spending plan, TIAA retirement plan, tuition remission program, family membership in Graber Sports Center/San Jose Pool, free admission to many college events and free off-street parking. Start-up funds available.

**APPLICATION DEADLINE.** Review of applications begins October 1, 2019. For more information contact, Dr. Adam Moser ([adam.moser@loras.edu](mailto:adam.moser@loras.edu)) or call 563-588-7920.

**APPLICATION.** Go to: <https://loras.applicantpool.com/jobs/> to upload your letter of application, curriculum vitae, teaching philosophy, and research plans. Have three letters of recommendation sent directly to the contact above. Additional materials may be requested at a later date.

**The Department of Chemistry and Biochemistry at Baylor University** invites applications for Assistant Professor positions in Inorganic and Physical Chemistry to begin August 2019. A doctoral degree in Chemistry (or related field) and postdoctoral experience is required. Candidates will be evaluated based on (i) their potential and/or existing track record in developing an internationally-

recognized, externally-funded research program, and (ii) their desire to excel as a teacher at both the undergraduate and graduate levels. The ideal candidate will have experience with solving problems across traditional disciplines, with consideration to research areas aligned with existing departmental research in health, environment, and materials. Salary is commensurate with experience and qualifications. Applicants should prepare a single pdf file containing a cover letter, curriculum vitae, statement of teaching interests (2-3 pages), and brief description of research plans (5-7 pages). Candidates should arrange for 3 letters of recommendation and copies of their official transcripts to be submitted on their behalf. All information should be sent via email to [Barbara\\_Rauls@baylor.edu](mailto:Barbara_Rauls@baylor.edu), with reference to either the Inorganic Search or the Physical Search. Evaluation of applications will begin on October 15 and continue until the position is filled.

### **Pfizer is accepting applications for a Senior Associate Scientist, Biocatalysis & Process Development (non PhD)**

- We are seeking a creative, highly motivated synthetic organic chemist with biocatalysis experience to join our Chemical Research and Development (CRD) laboratories based in Groton, CT. The successful candidate will play a role in the development of innovative enzymatic processes to key precursors in the synthesis of active pharmaceutical ingredient (API) candidates in our portfolio. They will also demonstrate a passion for the development of cutting edge new biocatalysis technologies, in addition to having a proven track record of productivity in generating high-quality technical and scientific results.

CRD, as part of Worldwide R&D in Pharmaceutical Sciences, is responsible for the development of synthetic processes and technology for the production of API. CRD scientists engage in all facets of development from small scale synthesis in support of medicinal chemistry programs, to the development of the commercial synthetic route. CRD scientists partner with manufacturing specialists for API synthesis in kilo-lab and pilot plant facilities, as well as provide support for technology transfer to Pfizer manufacturing sites and third party facilities.

The successful candidate will join the Biocatalysis Center of Emphasis (BCE) within the Technology API group as a laboratory based experimentalist. They will provide screening and biocatalytic reaction optimization support for the development of innovative synthetic routes, workflows and processes. They will partner with chemists, analysts, biochemists and chemical engineers from across Pfizer R&D and manufacturing organizations to design novel enzyme platforms, participate in enzyme engineering programs and optimize enzymes to fit manufacturing process targets in terms of cost, robustness and quality. The ability to work on multi-disciplinary teams involving chemists, analysts, engineers, and technologists is essential.

#### **RESPONSIBILITIES**

- Apply organic chemistry principles and experimental skills to screen enzymatic reactions and optimize synthetic processes.
- Apply enzyme biochemistry principles (enzyme classes, enzyme screening, protein engineering, reaction kinetics, etc) to develop and adapt innovative technologies.
- Routinely maintains an up to date electronic notebook with all required supporting information.
- Ability to search the chemical literature to find viable solutions to synthetic problems.
- As a strong team player, partner with chemists, analysts, and chemical engineers from across Pfizer R&D and manufacturing organizations to design novel enzyme processes.
- Participate in brainstorming sessions towards proposing innovative enzymatic and organic reactions for API synthesis.
- Displays clear communication (written and oral). Collaborates and prepares internal research reports and technical presentations as well as external publications.

## BASIC QUALIFICATIONS

- BS in chemistry or biochemistry with at least 2 years lab experience or MS degree with 0+ years of laboratory experience.
- Years of experience to include use of organic chemistry principles, and hands on experience in preparative scale reactions. Fundamental principles of enzyme biochemistry and familiarity with enzyme screening, kinetics and the use of enzymes in preparative organic chemistry.

## PREFERRED QUALIFICATIONS

- Familiarity with preparative organic chemistry.
- Familiarity with common analytical chemistry instrumentation.
- Working knowledge of UPLC, MS and NMR.
- Familiarity of reaction optimization protocols for various enzyme parameters such as pH, T, buffers and enzyme formulation is highly desirable.

<https://pfizer.wd1.myworkdayjobs.com/PfizerCareers/job/United-States---Connecticut---Groton/Senior-Associate-Scientist--Biocatalysis---Process-Development--non-PhD- 4715622-1>

**University of Delaware Department of Chemistry and Biochemistry** is accepting applications for a tenure track Assistant Professor in Biochemistry and Life Sciences. The university interested in candidates who emphasize a mechanistic understanding of complex biological problems by utilizing novel biochemical, bioanalytical, bioinorganic, bioorganic or biophysical approaches. The successful candidates should have a PhD in Biochemistry, Chemistry, Molecular and Cellular Biology, or related fields, and the potential for excellence in teaching at the undergraduate and graduate levels in Biochemistry and Chemistry.

Founded in 1743, the University of Delaware combines tradition and innovation, offering students a rich heritage along with the latest in instructional and research technology. Centrally located on the I-95 corridor between New York City and Washington, D.C., UD is a Land Grant, Sea Grant, Space Grant, and Carnegie Research University with external funding exceeding \$200 million. As a state-assisted, privately governed institution, UD enrolls approximately 18,000 undergraduates and 4,000 graduate students. Within the Department of Chemistry and Biochemistry, the successful candidate will benefit from supportive intellectual environment, excellent core facilities and NIH-funded INBRE and COBRE centers. UD has a strategic partnership with Nemours Alfred I. duPont Hospital for Children, and Helen F. Graham Cancer Center and Research Institute at Christiana Care to foster translational research. UD is also the host institution of a recently established National Institute for Innovation in Manufacturing Biopharmaceuticals (NIIMBL), located in the newly developed Science, Technology and Advanced Research (STAR) campus.

Applicant Instructions:

Applicants should apply on-line on Interfolio <https://apply.interfolio.com/54500> and should submit a letter of application, a curriculum vitae, description of initial research plans, statement of teaching philosophy and arrange for submission of at least three letters of recommendation. Review of applications will begin on October 15, 2018 and will continue until the position is filled. All application materials will be shared with departmental faculty. Questions should be directed to Ms. Susan Cheadle at: [sheadle@udel.edu](mailto:sheadle@udel.edu).

**The Department of Chemistry and Biochemistry at the University of California, Santa Cruz (UCSC)** invites applications in the area of organic chemistry for a tenure-track position at the Assistant Professor level. Applicants should be able to contribute to the department focus areas of organic synthesis, organic materials or synthetic methodology. We have a preference for candidates with expertise in applied organic synthesis, medicinal chemistry or chemical biology as well as organic synthesis applied to materials science. We seek candidates with a strong background and publication record in synthetic

organic chemistry whose projected research program will address questions at the interface of chemistry and biology or chemistry and materials.

We seek scholars with the capacity to teach topics in organic chemistry at the undergraduate and graduate levels, including supervision and mentoring of undergraduate and graduate students. The successful candidate will be expected to contribute to the teaching, research and service missions of the department, by the creation of a vigorous top-tier research program with a strong extramural funding base, teaching at the undergraduate and graduate levels, and participation in departmental service. It is anticipated that the research program of the successful candidate will benefit from divisional core facilities including (but not limited to) NMR, Chemical Screening Center, X-ray and mass spectrometry.

The successful candidate must be able to work with students, faculty and staff from a wide range of social and cultural backgrounds. We welcome candidates who understand the barriers facing women and minorities who are underrepresented in higher education careers (as evidenced by life experiences and educational background), and who have experience in equity and diversity with respect to teaching, mentoring, research, life experiences, or service towards building an equitable and diverse scholarly environment.

#### BASIC QUALIFICATIONS

PhD (or equivalent foreign degree) in Chemistry or related disciplines (in hand at time of application) and at least one year of post-doctoral experience expected to be completed by July 1st, 2019.

#### POSITION AVAILABLE

July 1, 2019, with the academic year beginning in September 2019.

#### APPLICATION REQUIREMENTS

Applications are accepted via the UCSC Academic Recruit online system; all documents and materials must be submitted as PDFs.

APPLY AT <https://recruit.ucsc.edu/apply/JPF00636>

Please refer to Position # JPF00636-19 in all correspondence.

### **The Department of Biochemistry & Molecular Biology at the Indiana University School of Medicine:**

Seeking applications for all levels of tenure-track faculty positions in the areas of:

- Gene Expression (<http://indiana.peopleadmin.com/postings/6296>),
- Structural Biology (<http://indiana.peopleadmin.com/postings/6178>),
- Chemical Biology (<https://indiana.peopleadmin.com/postings/6187>), and
- Metabolism and/or Neuroscience (<http://indiana.peopleadmin.com/postings/6177>).

These positions are associated with the Department of Biochemistry and Molecular Biology (BIOM) and/or the Precision Health Initiative (PHI) at IUSM with the possibility of primary or secondary appointments in other departments or Centers on campus. Further descriptions for each of these positions can be found at their respective URL and attachment to this email.

Successful applicants are expected to have/develop an independent research program, participate in training students and fellows, and engage in research interactions within the IUSM community complementary to their scientific interests. A competitive salary, startup funds, and space will be provided.

Interested individuals should submit a *Curriculum Vitae*, cover letter, summary of past accomplishments and future research plans, and the names and contact information for 3-5 references in electronic format to the most relevant posting. The search committee will begin considering applications immediately and on an on-going basis until positions are filled. Questions can be directed to [biomfac@iupui.edu](mailto:biomfac@iupui.edu).

**The University of Minnesota Department of Chemistry** seeks to fill one tenure-track or tenured faculty position beginning, July 1, 2019, or later. Applications will be accepted from candidates whose research interests are in any area of modern chemistry. Appointments will be made at a rank commensurate with the appointee's experience. Appointees will be expected to carry out vigorous programs of original research, to advise research students, to teach a broad range of undergraduate and graduate courses in the Department of Chemistry, and to participate in Departmental and University governance. Selection will be based on each candidate's record of previous accomplishments relevant to these responsibilities and potential for outstanding future contributions. Appointees must have completed all requirements for the Ph.D. or equivalent foreign degree by the date of appointment. Evaluation of applications will begin, October 1, 2018, and will continue until the positions are filled.

Candidates should apply electronically to <https://z.umn.edu/tenuretrack2018> (tenure-track) or <https://z.umn.edu/tenured2018> (tenured) and include the following:

- a cover letter,
- a curriculum vitae,
- a statement of overall research interests,
- a statement addressing anticipated contributions to the research and teaching missions of the department,
- a statement addressing the candidate's experiences and commitment to diversity,
- and a copy of their graduate transcript.

Candidates should also arrange to have three letters of recommendation sent as attachments to emails to [chemfs@umn.edu](mailto:chemfs@umn.edu) or as hard copies to:

Faculty Search Committee, Department of Chemistry  
University of Minnesota  
207 Pleasant St. SE  
Minneapolis, MN, 55455-0431

**The University of Illinois at Urbana-Champaign Department of Chemistry** invites applications for open rank full-time tenure-track positions in all areas of chemistry. Candidates will be expected to establish a high-quality, externally funded research program and have a commitment to outstanding graduate and undergraduate teaching. Salary is negotiable. Target start date is August 16, 2019. A Ph. D. in Chemistry or a related field is required. Applicants are expected to show clear evidence of excellence in research and teaching.

To apply, create your candidate profile through <https://go.illinois.edu/Chemistry> and submit application materials by October 24, 2018. Applicants must submit the following: **separate PDF files** of your cover letter, curriculum vitae, statement of proposed research and scholarship, and a brief statement of teaching interests and philosophy. **Do not add files to the drop down labeled "All Req Materials (One File) for AP & Faculty jobs"**. The online application will require names and contact information for three professional references. Referees will be contacted electronically by the Department within 2 business days after submission of the application. Only applications submitted through the University of Illinois Job Board will be considered. You will be required to list the following:

**Teaching/Research Areas of Interest:**

- 1. Primary Area of Interest (required)**
- 2. Secondary Area of Interest (required)**
- 3. Other Area of Interest**

Please choose from the following area(s) of interest: analytical, chemical biology, inorganic, materials, organic, physical, and theoretical.

Please contact Chemistry Faculty Search Coordinator, [chemistry@illinois.edu](mailto:chemistry@illinois.edu), or 217-244-0565 if you have questions. In order to ensure full consideration, application materials (**in PDF format only**) must be



received by October 24, 2018. Applicants may be interviewed before the closing date; however, no hiring decision will be made until after that date.

**Dartmouth College Department of Chemistry** seeks an individual with a Ph.D. in chemistry who has already established a nationally recognized research program in synthetic organic chemistry, whose research interests will complement those of the current faculty, and who will excel at teaching in our Undergraduate and Ph.D. curricula. We particularly seek candidates who will help lead collaborative research projects both within the Department and involving other Dartmouth researchers, including those at Dartmouth's Geisel School of Medicine, Norris Cotton Cancer Center, and Thayer School of Engineering, and who have a demonstrated ability to contribute to Dartmouth's undergraduate diversity initiatives in STEM research, such as the Women in Science Program, E. E. Just STEM Scholars Program, and Academic Summer Undergraduate Research Experience (ASURE). We are especially interested in applicants with an interest in successful teaching and mentoring of students from all backgrounds (including first-generation college students, low-income students, racial and ethnic minorities, women, LGBTQ, etc.). Candidates will be expected to teach introductory and advanced courses in organic chemistry, as well as graduate courses in their area of research.

#### Application Instructions

Applicants should submit a curriculum vitae, a description of their research accomplishments and future plans, a summary of their current research funding, a statement of their teaching and mentoring interests, which may include a discussion of past accomplishments and future goals regarding the training of underrepresented groups in the sciences and contributing to the growth and support of a diverse community of students and scholars at Dartmouth, and the names of at least three references. All inquiries and applications will be treated confidentially. Applicants are invited to submit application materials via Interfolio. The Committee will begin to consider completed applications on October 15, 2018, and will continue until the position is filled. Dartmouth is an equal opportunity/affirmative action employer with a strong commitment to diversity and inclusion. In that spirit, we are particularly interested in receiving applications from a broad spectrum of individuals, including women, persons of color, persons from a diverse socio-economic background, persons with disabilities, veterans or any other legally protected group.

#### Application Process

This institution is using Interfolio's Faculty Search to conduct this search. Applicants to this position receive a free Dossier account and can send all application materials, including confidential letters of recommendation, free of charge. Apply: <https://account.interfolio.com/login?apply=53325>

**The Department of Chemistry and Biochemistry at Southwestern University** seeks applicants for a tenure-track Assistant Professor of Chemistry beginning in August 2019.

The successful candidate must be committed to excellence in undergraduate teaching and is expected to develop a productive undergraduate research program.

Southwestern University is a selective liberal arts institution in Georgetown, Texas with an innovative American Chemical Society (ACS) certified curriculum and new state-of-the-art facilities for scientific teaching and research.

Review of applications begins on September 24, 2018 Closing Date: when filled

A PhD in chemistry or related field is required by August 2019.

Teaching responsibilities include general chemistry, upper-level physical chemistry, chemistry for non-majors, and courses within the university's general education program such as First Year Seminar. In particular, the candidate must have demonstrated competency to teach within core physical chemistry areas such as thermodynamics, kinetics, and quantum mechanics. The candidate should have a strong commitment to working with diverse student populations in the classroom and laboratory.

Additionally, the successful candidate will develop a research program that significantly incorporates undergraduate students. Research programs in which experimental physical or analytical chemistry is a

central component are strongly preferred. Other responsibilities of the position include advising students and university service.

TO APPLY VISIT: <https://apply.interfolio.com/51858>

**The University of Iowa Chemistry Department is** accepting applications for tenure-track positions in organic chemistry (broadly defined), physical chemistry (broadly defined), and radiochemistry, all with expected starting dates in August, 2019. The radiochemistry position is at the assistant professor level, but applicants at both the assistant and associate professor level are welcomed for the organic and physical chemistry positions. We are also seeking applications for at least two instructional track positions.

Links to each position description and the procedure for submitting applications are as follows:

Physical Chemistry search: <https://jobs.uiowa.edu/faculty/view/73244>

Organic Chemistry search: <https://jobs.uiowa.edu/faculty/view/73192>

Radiochemistry search: <https://jobs.uiowa.edu/faculty/view/73167>

Instructional Track search: <https://jobs.uiowa.edu/faculty/view/73345>

**The Lilly Technology Center in Indianapolis is accepting applications for Research Scientist-Process Chemistry** <http://bit.ly/43770LLY>).

Responsibilities

Small Molecule Design and Development (SMDD) is an innovation-focused organization in Lilly striving to identify, develop and apply the most cutting-edge technologies to deliver maximum benefit to our patients. Within SMDD, the process chemistry group is essential to establishing a robust and sustainable supply chain for small molecule active pharmaceutical ingredients (API), which are being developed for clinical evaluation and potential commercialization. The process chemistry capability is necessary to identify the challenges within a given small molecule route and identify innovative solutions to address the key risk points (i.e., yield, impurity based, hazardous unit operations, etc.).

Our team is looking for a creative and energetic synthetic organic chemist to participate in the route design, development, and manufacture of small molecule drug candidates to support active clinical trials and product commercialization efforts. Our dynamic group is made up of chemists, pharmaceutical scientists, analytical chemists, and engineers. Top candidates for this position will be expected to:

- Possess fluent knowledge in modern synthetic organic chemistry methods with the drive to challenge existing methods; create and apply cutting edge technology to the synthesis of active pharmaceutical ingredients in a time constrained environment.
- Demonstrate high learning agility with regard to grasping and exploiting new scientific concepts and methods across multiple disciplines such as continuous processing, automated reaction screening, and digital design; be able to apply these learnings to a portfolio of small molecule and peptide assets.
- Demonstrate the ability to define clear goals, critical success factors and timelines; make decisions and solve problems at the individual and team level.
- Demonstrate teamwork and consistently build collaborative and productive cross-functional relationships.
- Collaborate with external manufacturing partners to develop robust chemical process that are readily amenable to efficient drug substance manufacturing.
- Collaborate closely with Discovery Chemistry to provide SAR and candidate selection guidance to the discovery core team.
- Embrace diverse thought, background and experience to deliver innovative solutions.



- Possess strong communication (oral, written), organizational, and leadership skills; demonstrate the ability to understand and communicate scientific issues and strategy at the project/ program level

#### Basic Qualifications

- PhD in synthetic organic chemistry

#### Additional Information

- Potential exposure to chemicals, allergens and loud noises.
- 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
- Travel: 0 to 10%
- Position Local: Indianapolis, IN; Lilly Technology Center-North (LTC-N)

#### Additional Skills/Preferences

- Strong technical skills to supply business value.
- Knowledge and experience with management of a technical project.
- Demonstrated leadership capabilities especially in a team environment.
- Good interpersonal skills and a sustained tendency for collaboration.
- Ability to prioritize multiple activities and manage ambiguity.
- Ability to influence others to promote a positive work environment.
- Demonstrated initiative and risk-taking.
- Demonstrated technical proficiency and ability to create ideas for future work plans.
- Demonstrated success in persuasion, influence and negotiation.

#### **The Chemistry Division of Brookhaven National Laboratory (<http://www.bnl.gov/chemistry> )**

performs research in the area of catalysis for production of solar fuels using transition-metal-containing molecular complexes in solution and at interfaces of electrodes or semiconductors.

#### Position Description

The successful candidate will conduct basic research toward the development of such catalysts through focusing on: design, synthesis and characterization of metal complex catalysts/photosensitizers; characterization of excited-state photophysics and their coupling to electron transfer and/or catalytic processes for solar fuels production; immobilization of catalysts on electrodes or semiconductors; studies of catalytic activity evaluation and mechanistic understanding of catalytic performance including transient spectroscopy and electrochemistry.

The successful candidate will collaborate with a team of scientists including theoretical chemists owing to the interdisciplinary nature of our work, and will be supervised by Etsuko Fujita.

#### Position Requirements

- Ph. D. in chemistry or a related field, and a strong background in synthesis/characterization of transition-metal molecular complexes, physical chemistry and photochemistry.
- Expertise in one or more of the following areas is desirable: synthesis and handling air-sensitive compounds, electrochemistry, time-resolved spectroscopy, stopped flow, radiolysis, mechanistic and kinetic studies in solution and at interfaces.

BNL policy requires that research associate appointments be made to individuals who have received their doctorate within the past 5 years.

<https://jobs.bnl.gov/job/upton/postdoctoral-res-assoc/3437/8823419>

**Chemical Biology Program at the Memorial Sloan Kettering Cancer Center (MSK)** is accepting applications for a tenure-track position. We seek candidates with strong research accomplishments in organic chemistry or chemical biology and interests in bringing chemical approaches to bear upon

problems at the interface with biomedical research, including basic and translational research and across all disease areas.

MSK has a rich history in chemical research spanning over 70 years, and we are continuing our recent expansion in this area. We provide a unique and collaborative scientific environment, exceptional research facilities and resources, and generous startup packages. Faculty are eligible to hold appointments in and to recruit students from multiple outstanding graduate programs, including the Tri-Institutional PhD Program in Chemical Biology, Tri-Institutional MD-PhD Program, Gerstner Sloan Kettering Graduate School of Biomedical Sciences, and Weill Cornell Graduate School of Medical Sciences.

The application deadline is October 15, 2018. Interested candidates should visit <https://facultysearch.ski.edu> to access the online application and to obtain important information on required application materials and deadlines. Applicants must have a PhD degree in chemistry, biochemistry, chemical biology, or a closely related discipline, and a strong track record of scientific achievement. Inquiries may be sent to Jocette Marquez, Program Coordinator at [marquezj@mskcc.org](mailto:marquezj@mskcc.org) or to Prof. Derek Tan, Chairman, Chemical Biology Program at [tand@mskcc.org](mailto:tand@mskcc.org). Women and minority candidates are encouraged to apply. A copy of the search advertisement is below.

**The Surface Chemistry and Catalysis Group in the Chemical Sciences Division at Oak Ridge National Laboratory (ORNL) is** seeking a catalytic chemist with a strong background in reaction kinetics and mechanism to perform research on heterogeneous catalysis involving complex reactions of oxygenates and alkanes over oxides such as perovskites, and supported metal catalysts. The primary focus will be on the use of quantitative kinetic methods and in situ/operando techniques including X-ray photoelectron spectroscopy (XPS), X-ray absorption spectroscopy (XAS), optical spectroscopy and neutron scattering to interrogate the structure – function relationships in reactions over ternary oxides and supported metal catalysts. The incumbent will work in close collaboration with other researchers in both experiments and computations involved in this fundamental research project. [Research Staff Member-Catalytic Chemist](#)

#### OVERVIEW

The Surface Chemistry and Catalysis Group conducts research into chemical transformations relevant to the conversion of energy resources, such as oxygenates and alkanes, over oxides and metals supported on oxides with a focus on understanding the reaction mechanisms and kinetics to enable the identification and control of the catalytic active site and optimization of the selectivity and conversion. Primary research interests are focused on understanding and controlling the fundamental synergism among various catalytic sites on oxide and supported metal surfaces that control the reaction pathways and selectivity in dehydration, dehydrogenation, coupling and oxidation reactions. Approaches include experimental and computational studies of reaction mechanism and kinetics, spectroscopic identification of surface reactants under in situ and operando conditions, and surface science approaches to synthesis of model catalysts and study the surface chemistry to understanding structure-function relationships in catalysis. An array of techniques for characterizing the physical and catalytic properties are in place or are currently being developed within the group. This research program also takes advantage of resources at ORNL including the Center for Nanophase Materials Sciences and the Spallation Neutron Source, for neutron scattering, as well as other national user facilities such as synchrotron light sources. The environment at ORNL is highly collaborative and crosscutting research exists between the Chemical Sciences Division and other Divisions at ORNL.

#### *Major Duties/Responsibilities*

- Perform reaction kinetics and mechanistic studies over oxides and supported metal catalysts using micro-reactor systems.
- Perform and develop in situ/operando studies of reaction mechanisms by a variety methods, including steady-state isotopic transient kinetic analysis (SSITKA) combined with optical spectroscopy (IR and

- Raman), synchrotron-based X-ray and neutron scattering techniques.
- Collaborate with ORNL postdocs and staff who are involved in the synthesis, characterization and catalytic testing of catalysts and train new postdocs and student in catalytic chemistry.
  - Independently formulate research strategies and collaborate with experimentalists and computational chemists to guide the design of new catalytic materials with superior properties.
  - Participate in the development of new research directions and proposals for funding.
  - Present and report research results at scientific meetings and to sponsors.
  - Publish scientific results in high impact peer-reviewed journals in a timely manner.
  - Ensure compliance with environment, safety, health, and quality program requirements.
  - Maintain strong commitment to the implementation and perpetuation of values and ethics.

### *Qualifications Required*

#### Basic Qualifications:

- A PhD in Chemistry, Chemical Engineering or a closely related science discipline, with at least two years of catalysis research experience.

#### Preferred Qualifications:

- A strong background in the study of heterogeneous catalysis and catalytic reactions.
- Strong expertise in studying kinetics and mechanisms of heterogeneous catalytic reactions.
- Experience in synchrotron-based X-ray and electron spectroscopy including XPS and XAS (EXAFS and XANES) and neutron scattering to study heterogeneous catalysts and catalytic reactions.
- Experience in studying reaction mechanisms with multimodal in situ/operando approaches.
- Experience in synthesis and characterization of oxide and supported metal catalysts by a variety of techniques including scattering and spectroscopy approaches.
- An excellent track record of productive and creative research demonstrated by publications in peer-reviewed journals.
- Must be a self-starter and be able to set priorities, work independently and participate creatively in a collaborative team effort.
- Experience in leading and contributing to the preparation of highly innovative proposals in basic and applied catalysis.
- Excellent written, oral, and interpersonal skills, as well as the ability to communicate in English to an international scientific audience.
- Motivated and safety conscious.

#### OTHER INFORMATION:

Please provide a list of publications when applying for this position. Three letters of reference are required and can be uploaded to your profile or emailed directly to [PSDrecruit@ornl.gov](mailto:PSDrecruit@ornl.gov). Please include the title of the position in the subject line.

This position will remain open for a minimum of 5 days after which it will close when a qualified candidate is identified and/or hired.

**The Department of Chemistry, Yale University, New Haven, CT** invites applications for a tenure-track position at the ASSISTANT PROFESSOR level to commence 1 July 2019. We seek creative teacher-scholars to develop outstanding experimental or theoretical research programs in biophysical chemistry, broadly defined. We are especially interested in applicants whose research focuses on chemical aspects of biomolecular structure, function, organization, engineering, and/or dynamics. Applicants should send their curriculum vitae, a statement of research plans, and arrange for the submission of three letters of recommendation. Please submit all materials through Interfolio at <http://apply.interfolio.com/53419>. A review of applications will begin October 1, 2018.