

WEEKLY BULLETIN
DEPARTMENT OF CHEMISTRY, NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS
July 12, 2021

Contents



[Return to Research Guidelines](#)

[New Arrivals](#)

[BIP](#)

[Upcoming Events and News](#)

[Job Openings & Recruiting](#)

 For a full schedule, including Center events, please see the [Department Calendar](#). 

Return to Research Guidelines

[Return to Research Policy](#)

[COVID-19: Return to Campus Guidelines](#)

New Arrivals

Vinzenz Mayer (Post-Baccalaureate Research Fellow) joins the Mirkin group on July 12, 2021.

Maike Lundahl (Visiting Scholar) joins the Hoffman group on July 11, 2021.

BIP

BIP will be held virtually on Fridays, **10 am to 11 am**. The Zoom link will always be sent out **the Wednesday before the respective seminar to the BIP listserv!** Interested in giving a BIP talk or signing up to be on the BIP listserv? Email the new BIP Meisters, [Zoha Syed](#) or [Megan Kaster](#).

Upcoming Events and News

Call for Abstracts: Webinar Series for Early Career Chemists

JAWSCHEM is a virtual seminar series for chemists in the early stages of their career (i.e. undergraduates, graduate students, and postdocs, as well as people in industry and government/national labs). The goal of this seminar series is to fill the void of missed conferences and provide a platform for junior researchers to share their work with the worldwide chemistry community.

There is currently a call for abstracts from the chemistry community, and they welcome submissions from all over the world. Additional information about times and talk length can be found on our [abstract form](#) and [website](#). You can follow them on Twitter too ([@JAWSCHEM](#)).

Dow Green Chemistry Challenge Awards

This is the [webpage](#) for the new Green Chemistry Challenge Awards. In summary, the awards are designed to accelerate the adoption of Green Chemistry on the campuses of Dow's academic partner institutions in the Chemistry and Engineering departments. Universities must be signed onto the GCC in order to be eligible and we are accepting proposals until June 30. The awards fall into two funding levels (\$5,000 and \$10,000). The universities that receive these awards will work to achieve a minimum of one of the following:

- Increase the awareness of Green Chemistry and the Green Chemistry Commitment program across the chemistry department and institution.
- Increase awareness of the institution's dedication to Green Chemistry education through conference attendance, webinars, publications, social media campaigns, etc.
- Transforming curriculum and lab procedures to achieve the GCC's Green Chemistry Student Learning Objectives so all chemistry majors, upon graduation, have proficiency in the following essential green chemistry competencies: theory, toxicology, laboratory skills, application.

Job Openings & Recruiting

Chemist Openings, Stepan



Established in 1932, Stepan Company is a major manufacturer of basic and intermediate chemicals including surfactants, polymers, as well as specialty ingredients that go into consumer, household, and institutional products such as laundry detergents, shampoos, and surface cleaners.

Research

Chemist: <https://career41.sapsf.com/sfcareer/jobreqcareer?jobId=911&company=stepancomp>



Job Title Biochemist, AChE Reactivation, Postdoc

Location Los Alamos National Laboratory, Los Alamos, NM

Organization Name Engineered Materials MST-7

What You Will Do

Candidates will perform reactivation experiments on inhibited acetylcholinesterase (AChE) to measure therapeutic potential of a library of candidates. Postdoc candidates will also assist in the development of novel assays to perform the reactivation experiments inside an *in vitro* human blood brain barrier model. It is expected that candidates are highly knowledgeable in AChE chemistry, detection methods, activity measurements, and organophosphonate chemistry. Candidates will work collaboratively within the Biosciences Division (B-10).

Exceptional candidates may be considered for a Director's Fellowship and outstanding candidates may be considered for the prestigious Darleane Christian Hoffman, Richard P. Feynman, J. Robert Oppenheimer, or Frederick Reines Fellowships.

For general information about the Postdoc Program, including salary guidelines, see: <http://www.lanl.gov/careers/career-options/postdoctoral-research/postdoc-program/index.php>.

What You Need

Minimum Job Requirements:

Ph.D. in Chemistry, Biology, Biochemistry, or a related field completed within the last five years or soon to be completed.

Solid background in one or more of the following:

- AChE reactivation or similar processes
- Creative experiment/assay design experience
- Experience with cell culturing

Excellent written and oral communication skills as demonstrated by writing and/or editing technical journals, papers or proposals

Strong interpersonal and communication skills as demonstrated by experience with public speaking, experience presenting technical information and data to a



broad audience, and experience working with interdisciplinary teams having diverse technical backgrounds

Ability to work productively on multiple projects as demonstrated by meeting deadlines, goals and requirements, ability to work with minimal supervision

Desired Job Skills:

- Assay development for kinetic studies of AChE reactivation or similar studies
- Use of fluorescence or other methods for quantitation in assay development
- Bioconjugation of biotin or other small molecules for detection purposes
- Familiarity with blood brain barrier model functionality and end point detection methods

Education:

A Ph.D. completed within the last 5 years or soon to be completed in chemistry, bioogy, biochemistry, or a related field.

Pre-Employment Drug Test:

The Laboratory requires successful applicants to complete a pre-employment drug test and uphold a substance abuse policy that includes random drug testing.

Notes to Applicants:

Apply online at www.lanl.gov. Include a cover letter and CV in your application.

Where You Will Work

Located in northern New Mexico, Los Alamos National Laboratory (LANL) is a multidisciplinary research institution engaged in strategic science on behalf of national security. LANL enhances national security by ensuring the safety and reliability of the U.S. nuclear stockpile, developing technologies to reduce threats from weapons of mass destruction, and solving problems related to energy, environment, infrastructure, health, and global security concerns.

Though the hire will be in MST-7, the candidate will be co-mentored by B-10 and will work in B-10 space.

The Engineered Materials Group ([MST-7](#)) provides multidisciplinary expertise in materials science ranging from polymers and foams to target fabrication and materials discovery. This expertise is focused on delivering technology solutions for national security missions. In particular, MST-7 applies an extensive



knowledge of chemistry, physics, materials science, chemical engineering, and mechanical engineering to study matter under various environmental and extreme conditions relevant to our customers. MST-7 is involved in many research programs, such as inertial confinement fusion, nuclear weapons programs, including core and enhanced surveillance, directed stockpile and lifetime extension programs, global security, homeland defense, and civilian applications of materials technologies. MST-7 personnel include scientists, engineers, technologists, technicians, and administrative support personnel, who team within the group and with other organizations to fulfill our various missions.

The Biosecurity and *Public Health* ([B-10](#)) Group's capabilities are integrated genomics, biochemistry, structural biology, synthetic biology and host pathogen biology. Its focus areas include biofuels, biomaterials, biosynthesis, terrestrial biosystems, environmental impacts, biosurveillance, CB threat science, *health* effects and countermeasures.

Equal Opportunity

Los Alamos National Laboratory is an equal opportunity employer and supports a diverse and inclusive workforce. We welcome and encourage applications from the broadest possible range of qualified candidates. The Laboratory is also committed to making our workplace accessible to individuals with disabilities and will provide reasonable accommodations, upon request, for individuals to participate in the application and hiring process. To request such an accommodation, please send an email to applyhelp@lanl.gov or call 1-505-665-5627

Benefits

- Exceptional health benefits
- Robust relocation package for eligible employees
- Award winning 401k with 9.5% company contribution
- Flexible work schedules allow for work-life balance
- Generous tuition assistance and in-state tuition at UC and TAMU
- Free, on-site wellness center with gym, fitness classes and nutrition experts
- Paid maternity and parental leave

Please see <https://www.lanl.gov/careers/employees-retirees/new-hires/index.php> for more information.

Life at the Lab

Northern New Mexico has an abundance of wildlife, culture, and adventures
58 Miles of hiking trails in around and Los Alamos



Los Alamos County rated #3 Best Counties to Live In by USA Today
Six ski resorts located within 100 miles of the lab
Award winning family friendly culture



PostDoc Position in Organic Chemistry 80%

Do you enjoy making molecules and are you up for a synthetic challenge? Do you appreciate structural beauty and like to mingle art with science? Then apply and join us! Together, we will explore the properties of open-shell polycyclic aromatic hydrocarbons.

Duration of the employment: 1 year

Starting date: September 1, 2021

Application deadline: July 11, 2021

Interviews: July 13–14, 2021

About us

We are a diverse, international and friendly group of people who develop functional materials based on organic molecules. Our projects are at the interface between organic synthesis, materials science, and supramolecular chemistry. Our aim is to learn how to introduce and control multiple functions in a bulk material through molecular design. Our research is funded by the European Research Council (ERC), the Swiss National Science Foundation (SNSF), and the University of Zurich (UZH). If you would like to learn more about our research, please visit our group [website](#).

Your responsibilities

In this fully funded, full-time project, you will be involved in the design and synthesis open-shell hydrocarbons, their structural characterization, and investigation of their properties both in solution and in the solid state.

Your profile

We look for a creative, passionate, ambitious, and highly motivated candidate, who has strong skills in synthetic organic chemistry, is a team player, who helps and motivates others, has a humble and friendly personality and a sense of humor, and critically evaluates obtained scientific results. You have:

- PhD degree in chemistry (post defence, diploma available) and outstanding track record
- proficiency in multistep organic synthesis of aromatic systems, including microscale work, work under air-free and moisture-free conditions
- experience in designing and planning complex synthetic sequences
- experience with spectroscopic techniques (NMR, UV/Vis, HPLC, GPC, GCMS, EPR, etc.)
- excellent English language skills (written and oral), co-wrote papers and proposals

We offer

- work in an inspiring environment
- state-of-the-art scientific infrastructure
- conferences, training, coaching
- diverse international team and room to grow

We look forward to receiving your application as a single PDF file (michal.juricek@chem.uzh.ch) including the following documents: a cover letter stating your motivation for this position, a research summary of past accomplishments, CV (resumé), and the names and contact details of 2 referees. **Applications that are not submitted as a *single* PDF file will NOT be considered. Please note that candidates short-listed for interview will be notified on July 12, 2021. The interviews will take place on July 13–14, 2021. The results will be communicated by July 16, 2021.**

Assistant Professor (Inorganic Chem) – Rice University



RICE UNIVERSITY

Rice University is searching for an Assistant Professor in the area of Inorganic Chemistry. Rice is interested in candidates with expertise in all areas of Inorganic Chemistry, including inorganic photochemistry and spectroscopy, novel inorganic materials, bioinorganic chemistry, catalysis, etc. The application link and instructions can be found by following this link:

<https://chemistry.rice.edu/faculty-search>.

Adjunct Position – Northeastern Illinois University



Northeastern

ILLINOIS UNIVERSITY

The Department of Chemistry at Northeastern Illinois University (NEIU), a Hispanic-serving Institution in Chicago, IL, invites applications for adjunct faculty position beginning Fall 2021. A Masters in Science degree in chemistry or a closely related field is required, Ph.D. preferred. Broadly trained chemists who can contribute to a variety of courses in the curriculum, including Chemistry in Society and General Chemistry, are especially encouraged to apply. Candidates are expected to have a strong commitment to excellence in teaching in both face-to-face and online delivery.

Northeastern Illinois University is an Equal Opportunity/Affirmative Action employer and invites applications from Women, Minorities, Veterans, and Persons with Disabilities, as well as other qualified individuals. Applicants should send a cover letter that includes information about their teaching philosophy and interest in the position, a curriculum vita, and three references to: Kenneth T. Nicholson, Chair, Department of Chemistry, Northeastern Illinois University, 5500 N. St. Louis Avenue, Chicago, IL 60625-4699. Electronic applications may be sent to k-nicholson@neiu.edu

Postdoctoral position (nanomedicine) – University of Southern California

Postdoctoral Fellows

The Chung lab welcomes applications from exceptional postdoctoral candidates interested in pursuing translational research in the following areas:

- Nanomedicine
- Biomaterials
- Drug Delivery

Applicants should have a PhD in Biomedical Engineering, Chemistry, Chemical Engineering, or related areas. The position requires a highly motivated and independent researcher with drug delivery background and cell culture know-how, animal experience, and the ability to work collaboratively with other team members and manage interactions with faculty and a broad range of senior and junior research collaborators. Candidates with relevant experience should email Professor Chung (eunchung@usc.edu). Please include the following information with your email application: Cover letter, CV, references, and research interests.

Apply [here](#).

Carbon Neutral Program Manager in Los Altos, CA



The company

At Toyota Research Institute (TRI), we're working to build a future where everyone has the freedom to move, engage, and explore. Join us in our mission to improve the quality of human life through advances in artificial intelligence, automated driving, robotics, and materials science. We're dedicated to building a world of "mobility for all" where everyone, regardless of age or ability, can live in harmony with technology to enjoy a better life.

The challenge

Achieving net-zero carbon emissions is one of the most important challenges facing our world. Vehicle electrification is an important pathway toward decarbonizing the transportation sector, but this strategy relies on creating a carbon-free electrical grid. Large-scale trucking is much more challenging to electrify than small cars. Steel production represents a large source of emissions which is difficult to abate. Faced with these challenges, how can Toyota get to net-zero? What comprehensive strategies will we need? How do we work across industries? What are the most impactful things we can do today? These are questions we need to continually answer over the coming decades.

The opportunity

We are looking for someone who can work across the critical areas of technology, economics, policy, and society in order to help evaluate and continuously evolve Toyota's long-term carbon neutral strategy. You will

- 1) Build a team of external experts and set up programs that leverage their expertise.
- 2) Direct external research on CO₂ mitigation that considers technology, economics, politics, and society.
- 3) Provide technical advice on potential startup investments related to energy and climate.
- 4) Build and maintain relationships across different divisions of the Toyota group within the US and Japan to help drive strategies that work in different parts of the world.

The team

We welcome you to create a new cross-functional effort that demonstrates existing strengths within TRI, primarily AMDD and MAC. The Accelerated Materials Design and Discovery (AMDD) group is accelerating the development of new materials for emissions-free mobility. The Machine Assisted Cognition (MAC) group is developing AI systems to augment (not replace) human decision-making, including decision-making around carbon-neutral strategies. In addition to working with materials science, behavioral science, and computer science professionals already within TRI, you will work to bring in the new collaborators from diverse fields needed to meet the challenge.

We'd love to hear from you if you:

- Have a graduate degree in energy technology & policy (or related field), Ph.D. preferred.
- Have a strong research background, including peer-reviewed publications.
- Have effective written and verbal communication skills.
- Have proven experience working on cross-disciplinary problems.
- Have strong interpersonal skills and are good teammates.
- Thrive in a culture that values diversity, collaboration, humility, and learning.

Apply [here](#)



Northeastern University

Teaching Professor Position

The Department of Chemistry and Chemical Biology at [Northeastern University](#) has openings for a teaching professor and a visiting teaching professor.

The primary responsibility involves teaching up to five sections per year of general, organic, and/or physical chemistry and related courses for life or physical sciences or engineering

students at the undergraduate level. Specific courses will depend on departmental need and on the candidate's area of specialty. Applications received by July 1 will receive full consideration for all positions.

More information:

<https://careers.hrm.northeastern.edu/en-us/job/506743/assistantassociate-teaching-professor>

<https://careers.hrm.northeastern.edu/en-us/job/506754/visiting-teaching-professor>

Innovation and New Ventures Office (INVO)

Northwestern | INVO

Innovation and New Ventures

The Innovation and New Ventures Office (INVO) recently added a new page to their website to help connect the Northwestern community with job opportunities at Northwestern startups. These companies are translating and commercializing advanced technologies that were originally discovered in Northwestern labs. Positions listed include full-time, part-time and internships: <https://www.invo.northwestern.edu/technologies/startups/index.html>.



Current Opening:

Princeton Computer Science is seeking a Data Scientist to work with its world-renowned faculty and students to solve biomedical research questions using novel computational approaches. The data scientist will develop novel, scalable algorithms and machine learning techniques and apply these to large repositories of biomedical data. They will

work with faculty, post-doctoral researchers, and graduate students in research projects across multiple biomedical applications, particularly in human genetics and disease.

As a Data Scientist you will work in a collaborative, multidisciplinary environment and actively contribute your skills to advance scientific discovery. You will have access to Princeton's first-class resources, the opportunity to co-author academic publications, to offer short courses and workshops on data science, and to collaborate with the larger data science community. You will join a team of five Data Scientists working across multiple disciplines as part of the Schmidt DataX Project at Princeton, an initiative made possible by a major gift from Schmidt Futures.

Appointments are for 3-years and offer a very competitive salary and excellent opportunities for growth and career development. The Biomedical Data Science initiative is spearheaded by the Department of Computer Science, with strong connections to the Lewis-Sigler Institute for Integrative Genomics, Center for Statistics and Machine Learning, and other engineering departments.

Required Qualifications:

- Ph.D. required in computer science, mathematics, statistics, data/computational science, or related disciplinary field or equivalent combination of educational training and relevant experience.
- Strong coding/algorithm prototyping skills, and ability to explain and document work.
- Proficiency in one or more of the following: Python, R, C/C++, or Julia.
- Experience using data analysis, statistics, machine learning, and/or scientific computing to address basic research questions; or commensurate achievements

Questions? Contact Project Manager, [Ellen DiPippo](#)

Ready to Apply: Full job description and access to application on Princeton's job posting system: <https://www.princeton.edu/acad-positions/position/19701>.

Do you have news or opportunities to share in the Weekly Bulletin?
Please email them to Colleen Kjellberg at colleen.kjellberg@northwestern.edu

For an archive of the Department of Chemistry's Weekly Bulletins, please visit: [Bulletin Archive](#)