

**WEEKLY BULLETIN**  
DEPARTMENT OF CHEMISTRY, NORTHWESTERN UNIVERSITY  
EVANSTON, ILLINOIS  
**December 07, 2020**

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## Return to Research Guidelines

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## New Arrivals

No new arrivals this week

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## 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](#).

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## 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](#)).

### TECH Sanitary Lift Station Project - Bike Corral

Facilities is getting ready to start the retrofit of the Sanitary Lift Station out in front of TECH at the Southwest corner of the building in front of the moat. Facilities will be installing a fence around the area

next week. In preparation of this work they need to clear the bike corral in that area. They have tagged the few bikes that are there now and we are giving people till **the weekend** to remove them. There are other bike corrals in front of TECH so there should be no problem for people to find a spot for their bike while this project is going on. Please contact Rob Wikstrom ([r-wikstrom@northwestern.edu](mailto:r-wikstrom@northwestern.edu)) with any questions.



### **MRSEC Seminar - Loza Tadesse, Stanford University**

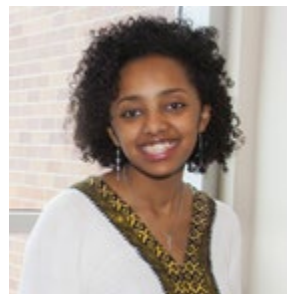
Northwestern University Materials Research Center

[MRC@northwestern.edu](mailto:MRC@northwestern.edu)

847-491-3606

**Tuesday 08 DEC @ 4:00 p.m.**

**Topic:** Rapid Bacterial Identification and Antibiotic Susceptibility Testing  
using Raman Spectroscopy and Machine Learning



Loza Tadesse is a PhD candidate in Bioengineering at Stanford University under Prof. Jennifer Dionne. Her research develops a rapid, all-optical and label free bacterial diagnostic and antibiotic susceptibility testing system that aims to avoid the time-consuming culturing step in gold standard methods. As a medical student at St. Paul Hospital Millennium Medical College in Ethiopia, she had firsthand experience of the gravity of challenges patients and physicians face in resource limited clinical settings. This led her to develop a strong interest in engineering point-of-care medical devices. When not in lab, she is heavily involved in teaching and outreach including co-founder of a non-profit educational organization called Scifro with aim to empower the African youth to solve local problems through science and innovation. Loza is a recipient of Stanford EDGE, DARE and Agilent fellowships, and the 2019 Biomedical Engineering Society (BMES) career development award. Before coming to Stanford, she did a research stint at IBM Almaden and Los Alamos National Labs

#### **Join Zoom Meeting:**

<https://northwestern.zoom.us/j/99548200519>

Meeting ID: 995 4820 0519



## Careers in Patent Law

**Interested in a career in intellectual property and patent law? Please join Laurie McNamara, Jim Malecha, and Jose Martinez (Northwestern alums) from Wilson Sonsini Goodrich & Rosati to hear more about opportunities for graduate students and postdocs.**

**Date:** December 9<sup>th</sup>

**Time:** 12- 1 pm CT

**Event Zoom Credentials:**

<https://northwestern.zoom.us/j/96416482277?pwd=UGhBK25jMm9kNlNaT3lGV2g3aVhHQT09;>

Meeting ID: 964 1648 2277; Passcode: 691914

## Speakers:

Laurie McNamara, Associate, Patents and Innovations

- **Ask Me About:** What are possible careers in law that will allow me to use my technical background? Do I need to take the patent bar to work as a patent agent? Do I need to go to law school to work at a law firm? What does a typical work day look like as a patent attorney or patent agent at Wilson Sonsini?
- [Read Laurie's Bio.](#)

Jim Malecha, Patent Agent, Patents and Innovations

- **Ask Me About:** How is my scientific background useful in patent law? What skills do I need to be successful in a career in patent law? What was the transition from industry to the legal profession like?
- [Read Jim's Bio.](#)

Jose Martinez, Patent Agent, Patents and Innovations

- **Ask Me About:** What can I do as a student at Northwestern University in order to prepare me for a career in patent law? What can I do as a student at Northwestern University to stand out during a job interview in patent law? How is my scientific background useful in patent law? My Ph.D. research seems narrow, can I still apply? Do I need to go to law school to enter into patent law?
- [Read Jose's Bio.](#)

## About Wilson Sonsini:

Wilson Sonsini Goodrich & Rosati is the premier legal advisor to technology, life sciences, and growth enterprises worldwide, as well as the venture firms, private equity firms, and investment banks that finance them. Wilson Sonsini's patents and innovations practice helps clients leverage their intellectual property, defend against claims of others, and establish a competitive position for the future in fields such as therapeutics, biologics, personalized medicine, research tools, and clean technologies.

Our team helps growing companies achieve important milestones by securing, developing, and protecting their most vital IP assets, while also advising established companies responsible for advancing groundbreaking discoveries. The firm's patent attorneys and patent professionals have extensive experience working side-by-side with mature companies valued at billions of dollars, innovative start-up enterprises, and individual inventors as their trusted IP advisors. We have a long and trusted track record of IP value creation, as members of our practice are responsible for the development of the IP portfolios in all areas of life science, including IP for small molecule therapies, biologic therapies, synthetic biology, gene therapies, nanotechnology, genetic tests, medical devices, stem cell technologies, next-generation sequencing, and many others.

## Careers in Patent Law: Session with Wilson Sonsini MRSEC Seminar

Wednesday, December 9, from 12-1PM CST

Interested in a career in intellectual property and patent law? Please join Laurie McNamara, Jim Malecha, and Jose Martinez (Northwestern alums) from Wilson Sonsini Goodrich & Rosati to hear more about opportunities for graduate students and postdocs. The event will consist of a short presentation and interactive case lead by Laurie McNamara (NU PhD alumna). The case activity will be followed by an open Q&A with current patent agents, who can discuss how they transitioned from academia to working at a law firm. Participants are welcome to submit questions in advance via email to [momar@wsgr.com](mailto:momar@wsgr.com).

Wilson Sonsini Goodrich & Rosati is the premier legal advisor to technology, life sciences, and growth enterprises worldwide, as well as the venture firms, private equity firms, and investment banks that finance them. Wilson Sonsini's patents and innovations practice helps clients leverage their intellectual property, defend against claims of others, and establish a competitive position for the future in fields such as therapeutics, biologics, personalized medicine, research tools, and clean technologies.

Registration via [Handshake](#) is required for this event.

## Job Openings & Recruiting

### Job Opening, Trinity College

Trinity College is seeking candidates for a tenure-track position in physical chemistry and a second potential tenure-track opening in the areas of organic chemistry or chemical biology at Trinity College. This second position could be made possible by the College's renewed Special Opportunity Hire program, which endeavors to recruit "scholars and teachers of exceptional achievement or promise who will diversify the faculty." Both positions would begin in the fall 2022 semester. The Department of Chemistry at Trinity is committed to recruiting, interviewing and hiring diverse candidates for both positions.



Trinity College is a coeducational, independent, nonsectarian liberal arts college located in Connecticut's capital city of Hartford. Our student body is diverse, coming from all socio-economic, racial, religious, and ethnic backgrounds across the U.S. and internationally. Faculty combine teaching excellence with productive research programs that engage undergraduate students. Trinity College is located in an urban environment and nearby institutions include Hartford Hospital, the Institute of Living, Connecticut Children's Medical Center, and University of Connecticut Medical School. Researchers at these institutions often have active collaborations with Trinity faculty. The Chemistry Department is exceptionally well-equipped for both teaching and research.

The ideal applicants would excel at teaching in their area of expertise and in our introductory courses, and who would establish or continue a productive research program that meaningfully involved undergraduate co-workers. Applications are welcome from graduate students, postdoctoral scholars or established faculty members who, through their research, teaching, and service, would contribute to the diversity and excellence of our academic community.

Applications may be submitted to:

Timothy Curran

Vernon K. Kriebel Professor of Chemistry and Chair Email: [timothy.curran@trinco ll.edu](mailto:timothy.curran@trinco ll.edu)

Telephone: 860-297-5276

### Tenure-track position in biochemistry at Beloit College

**Beloit College invites applications for a tenure track faculty position in biochemistry to begin August 2021.**

The successful candidate will hold a Ph.D. in biochemistry or related field and teach courses in biochemistry and general chemistry. Willingness to teach courses in another area of chemistry (analytical, inorganic, or physical) preferred. We especially seek candidates who have demonstrated success in working with diverse populations of students. This position is an excellent opportunity to teach in a department known for innovative pedagogy. The successful candidate will also develop a research program related to some aspect of health, broadly defined, that engages undergraduates. This position places strong emphasis on advising undergraduate students in Biochemistry, Chemistry, and our multidisciplinary Health and Society program. The candidate will also contribute to all-college programs and serve in leadership roles in campus governance. More details can be found here: <https://www.beloit.edu/live/profiles/3870-assistant-professor-of-chemistry>

The logo for Beloit College, featuring the words "Beloit" and "College" in a white serif font, stacked vertically, against a dark blue rectangular background.





**Haogang Cai, PhD**  
Assistant Professor  
Health Technology and Engineering Institute  
(Tech4Health)  
NYU Grossman School of Medicine  
New York, NY, 10016

## **Postdoc, PhD positions in Optical Metasurface and Nanophotonics**

A postdoctoral position is available in the Cai Lab, part of the Health Technology and Engineering Institute (Tech4Health) at New York University Grossman School of Medicine (recently ranked # 4 in medical schools by [‘U.S. News & World Report’](#)). We build new paradigms of nanotechnology for biomedical applications, including optical metasurfaces for imaging and sensing, active tunable metasurfaces, and nano-engineered biomimetic materials. Our work has been published in high-impact journals including Nature Nanotechnology, Nature Materials, NPJ Comput. Mater., ACS Nano, Nano Letters, etc. This position is immediately available, and will remain open until filled. The postdoc will receive competitive stipend, and benefits provided by the NYU School of Medicine.

### **Who we’re looking for**

Candidates must have a PhD in engineering (electrical, mechanical, etc), optics, physics, materials science or an appropriate field. Those with expertise in optical metasurfaces (near infrared, visible), nanophotonic/plasmonic sensors, nanofabrication, are encouraged to apply. Those with hands-on cleanroom experience (e.g., e-beam lithography, RIE, SEM), a strong background in optics, optical experiments, and finite-difference time domain (FDTD) simulation are preferred. We seek candidates who are strongly motivated, open-minded, and capable of both independent and collaborative research work. Demonstrated ingenuity, productivity, communication and writing skills, and an excellent record of publications is preferred. We also have PhD student, research associate openings in related fields.

### **How to apply**

To apply, send your CV to Dr. Haogang Cai, at [haogang.cai@nyu.edu](mailto:haogang.cai@nyu.edu). Please include a detailed description of your research interests, a full list of publications, and names of at least two references.

### **Who we are**

The Tech4Health Institute, NYU Langone Health’s Institute for Health Technology and Engineering, is NYU Langone’s research and development hub for new biomedical instruments and technologies. With state-of-the-art facilities in Midtown Manhattan and an advanced rapid-response engineering team, the institute connects engineers and physical scientists with clinicians and life scientists to address key unsolved problems and unmet needs in biomedicine. Immersed in the unique vibrant and innovative environment of the New York City, and one of the foremost medical schools in the world, this is an ideal place for engineering researchers to design technologies improving human health. For more information, visit the lab website at <https://www.cai-labs.com/> and the institute website at <https://med.nyu.edu/departments-institutes/health-technology-engineering/>.



## UNIVERSITY OF SOUTHERN CALIFORNIA

The Department of Chemistry in the Dana and David Dornsife College of Letters, Arts and Sciences at the University of Southern California (Los Angeles, California) invites applicants for a tenure track Assistant Professorship in the areas of physical chemistry, chemical biology and organic chemistry, to start August 16, 2021. Candidates should have a Ph.D. and postdoctoral experience.

The Chemistry Department is highly collaborative and holds diversity, equity and inclusiveness as core values. Candidates that will contribute to the excellence as well as diversity of our academic community are strongly encouraged. We are committed to supporting the family needs of faculty and encourage candidates from non-traditional career paths and those that have demonstrated commitments to advancing diversity and inclusion through their career. Candidates have access to USC Provost's Assistant Professor Fellowship, which can provide additional time, research support and resources to transform their scholarship into extraordinary platforms for their own independent research prior to start of the tenure clock. The Department also offers flexibility in appointment start date. Candidates at any early career stage are encouraged to apply.

Candidates should submit their application online at <http://chem.usc.edu/facsearch> with a cover letter, curriculum vitae and a detailed description of their research and teaching plans. In order to be considered for this position, applicants are also required to submit an electronic USC application; follow this job link or paste in a browser: <https://usccareers.usc.edu/job/los-angeles/assistant-professor-of-chemistry/1209/17813341>. A separate statement on contributions and future plans in advancing diversity, equity and inclusion should be provided. The names and addresses of at least three individuals who will provide letters of recommendation will be requested on-line. The committee will begin evaluation of files that include three letters of recommendation on December 1, 2020 and applications will be considered until the position is filled.

*USC is an equal opportunity, affirmative action employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, protected veteran status, disability, or any other characteristic protected by law or USC policy. USC will consider for employment all qualified applicants with criminal histories in a manner consistent with the requirements of the Los Angeles Fair Chance Initiative for Hiring ordinance.*

## illumina- Open Position

illumina is looking for a chemist with experience in surface chemistry, nanoparticle synthesis/characterization, and bioconjugations. Based at our Headquarters in San Diego we require a Scientist to join our Research & Technology Development department as a Materials / Surface Chemist in a permanent role. As part of the Materials and Applied Surface Science group, you will play an integral role in developing new sequencing and array technologies and related applications. As the company moves fast so does the technology we use, the candidate will have to be adaptable to a wide range of techniques and methods used in life-sciences.



Visit [this page](#) for more details and to apply.

## Job announcement: Research Associate/ Group Leader

The Lab Dresden Center for Intelligent Materials (DCIM) is focused on novel materials which, as a central component of intelligent systems, feel, think and act autonomously through integrated sensory and actuator functionalities.



For more details, please refer to the following [announcement](#).

# Northwestern | Chemistry

## Research Assistant Professor for a New Lab Downtown

Dr. Karl Scheidt, a Professor in the Department of Chemistry and Department of Pharmacology at Northwestern University, is seeking a Research Assistant Professor with expertise in chemical and molecular biology for a new translational chemistry laboratory. The Research Assistant Professor will engage in research activities focused on advancing new molecules to understand biological function and expected to pursue independent grants, research and collaborations.

This is non-tenure, research faculty appointment for an initial period of up to three years and eligibility for renewal based on scholarly achievements and available funding. This position will be physically located on primarily on Northwestern's Medical School campus in Chicago, IL.

Only electronic application materials will be accepted. Northwestern University is an equal opportunity, affirmative action employer and does not discriminate against qualified individuals on the basis of race, color, religion, national origin, sex, pregnancy, sexual orientation, gender identity, gender expression, parental status, marital status, age, disability, citizenship status, veteran status, genetic information, or any other protected class. Individuals from all diverse backgrounds are encouraged to apply. Hiring is contingent upon eligibility to work in the United States.

Applications should be submitted via email and sent to [scheidt-ofc@northwestern.edu](mailto:scheidt-ofc@northwestern.edu). Please include a cover letter detailing your research experience, CV, three representative publications, and contact information for three references. Review of applications will begin immediately.

**Minimum Qualifications: (Education and experience)**

- Doctoral degree in the area of chemical biology/molecular biology/biological sciences or a related field of study with at least 2 years of relevant postdoctoral experience.
- Strong publication record and proven potential for independent extramural funding.

**Minimum Competencies: (Skills, knowledge, and abilities)**

- Strong interpersonal and communication skills and a desire to engage in team-based research and collaboration are necessary.
- Working knowledge of chemistry is essential to integrate effectively with translational chemistry projects at the University and within Dr. Scheidt's laboratory.
- Strong writing skills demonstrated through authorship of publications or independent grant research awards.
- Highly motivated and able to manage multiple projects and keep pace in a dynamic research environment.

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

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