

WEEKLY BULLETIN
DEPARTMENT OF CHEMISTRY, NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS
March 22, 2021

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New Arrivals

No new arrivals this week.

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

JAWSCChem 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 ([@JAWSCChem](#)).

Job Openings & Recruiting



Honda Research Institute US

Honda Research Institute USA has multiple internship openings for Spring/Summer 2021 in the following categories.

Material Sciences

1. The Synthesis and Evaluation of Nanocatalysts (Job Number: P20INT-22)
2. Circuit Design for Wearables (Job Number: P20INT-23)
3. Fabrication of Flexible Electrodes (Job Number: P20INT-24)
4. Synthesis of 2D Materials (Job Number: P20INT-25)

Please go to their careers website (<https://usa.honda-ri.com>) for a complete list of available positions, including internships. All inquiries must include the Job Number(s) in the subject line and sent directly to careers@honda-ri.com.

How to Apply: send an e-mail to careers@honda-ri.com with the following:

- Subject line including the job number(s) you are applying for
- Recent CV
- A cover letter
- Topics you are interested in (Optional)

Candidates must have the legal right to work in the U.S.A.

Two Post-doc Positions in IMSERC

IMSERC has two (2) open post-doctoral candidate positions for immediate placement. The



appointment term is planned for 2-3 years, but it is intended to be converted to a full-time, permanent position during or at end of post-doctoral appointment. The post-doctoral position within IMSERC is intended to be for

applied career development, and it should not be considered a “traditional” post-doctoral role that is intended as preparation for a role as an independent investigator. It could be classified as an industry post-doc. IMSERC and other cores within Northwestern use post-doc positions as employment trials of individuals interested in pursuing a career of working in a core facility or another similar analytical scientist position in industry.

The scope of the role(s) will primarily be centered around the subject areas within IMSERC of: mass spectrometry, crystallography (single and powder), and physical characterization (Thermal analysis, XRF, FT-IR etc.). Experience in most of the above techniques is desired, specifically mass spectrometry or LCMS. NMR experience would be an additional advantage. The responsibilities will include but are not limited to: (1) sample submission analysis, (2) new user training, (3) instrument quality control and maintenance, (4) following and maintaining instrument standard operating procedures (SOPs – for internal IMSERC protocols) and IMSERC User Manuals (for training of new users), (5) integration/networking with current NU researchers for new project and method development, (6) performing undergraduate and graduate educational support, as needed, and (7) general adherence to and stewardship of IMSERC policies and mission to be a premier research instrumentation facility for Northwestern. The positions are intentionally broad to allow IMSERC the flexibility to assign roles and responsibilities based on the candidate pool skill set.

Please reach out to imserc-director@northwestern.edu, if interested, attaching your CV and provide an introduction to yourself along with a short message around your reason/motivation for applying (ideally highlighting your career goals and aspirations and how they overlap with a longer-term role in such a position).

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. Krieble Professor of Chemistry and Chair Email: timothy.curran@trinco ll.edu

Telephone: 860-297-5276

PhD Research Chemist Position at Eastman Chemical Company in Kingsport, TN

EASTMAN

Founded in 1920, Eastman is a global specialty materials company that produces a broad range of products found in items people use every day. With the purpose of enhancing the quality of life in a material way, Eastman works with customers to deliver innovative products and solutions while maintaining a commitment to safety and sustainability. The company's innovation-driven growth model takes advantage of world-class technology platforms, deep customer engagement, and differentiated application development to grow its leading positions in attractive end-markets such as transportation, building and construction, and consumables. As a globally inclusive and diverse company, Eastman employs approximately 14,500 people around the world and serves customers in more than 100 countries. The company had 2019 revenues of approximately \$9.3 billion and is headquartered in Kingsport, Tennessee, USA. For more information, visit www.eastman.com.

Eastman Chemical Company is seeking a Research Chemist for the Scale-up Chemistry team located in Kingsport, TN. As a member of a high performing team within Eastman's Scaleup & Process Innovation Division, the selected individual will be responsible for developing, optimizing, and scaling synthetic routes to novel compounds. The individual will have an opportunity to develop innovative technical solutions across multiple business areas. Project work will be conducted in the laboratory, pilot plant, and large-scale manufacturing facilities.

Job Responsibilities:

- collaborate with applications R&D, marketing and business partners to understand customer needs and provide technical solutions that are economically viable;
- work in a fast-paced, results-oriented team environment to develop new technologies that provide solutions to customers' needs;
- solve complex problems, analyze results, propose next steps and strategies, and document conclusions/issues on a timely basis;
- work in and lead multidisciplinary teams to execute on technical projects, including directing the work of technicians;
- communicate results to technology, manufacturing, and business stakeholders;
- identify inventive aspects of new technology and work with our Legal department to capture and protect intellectual property.

Research Chemists are expected to take the lead in safety and housekeeping. Additionally, Research Chemists need to be self-starters, work independently, and have good personal organization skills to be successful. Flexibility is a must in this distinctly innovative environment. Candidates should have a positive social attitude and like to work in a team.

Education: Ph.D. in Organic Chemistry or Homogenous Catalysis from an accredited college or university

The candidate must possess:

- a broad exposure to synthetic organic chemistry transformations and laboratory experimentation techniques;
- demonstrated creativity and a desire to solve challenging and complex problems;
- first principles mechanistic approach and a passion for understanding the fundamental aspects of complex chemistries and processes;
- exhibit a high level of initiative and self-motivation;
- broad interests and willingness to take on relatively undefined challenges;
- strong project management and team leadership skills;
- excellent oral and written communication skills;
- ability to work in a team setting and with members from different technical backgrounds.

Postdoc Opening in Catalysis Methodology at UNC Chapel Hill



THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

Dr. [Michel Gagne](#) has an opening for a postdoctoral fellow to work in the general area of site selective catalysis at UNC Chapel Hill. Interested candidates can contact him at mgagne@unc.edu.

Postdoc opening for an Organometallic Chemist at Columbia University



Dr. [Jonathan Owen](#) has an opening for a postdoctoral position for a synthetic chemist with skills in both molecule and materials chemistry. Ideally this person would be an organometallic chemist (broadly defined) that is interested in synthesis, catalysis, and advanced characterization techniques including advanced NMR spectroscopy and x-ray scattering/crystallography. Interested candidates can contact him at jso2115@columbia.edu.

Northwestern | Chemistry

Postdoctoral Opening

Two immediate postdoctoral openings in Chen Group on ultrafast laser spectroscopy and X-ray spectroscopy/scattering are available to study structural and electronic dynamics in transition metal complexes and clusters using nonlinear optical spectroscopy combined with time-resolved X-ray spectroscopy and scattering. The position will be at NU and Argonne National Laboratory. Interested persons may contact Prof. Lin Chen for further details (l-chen@northwestern.edu). The formal ads will be posted later.



Reposted 9 March 2021

Post doc announcement: ink formulation chemist

Position #3065784

Post doc description

This Post-Doctoral R&D chemist position is in HP's imaging and printing business in our Corvallis, Oregon facility. The work will be focused on development of new ink formulations for inkjet printers.

Our group is responsible for the design and formulation of inkjet printing inks including the characterization of the print attributes and robustness. This project will focus on developing components that expand various ink attributes such as optical density and durability on different media. The project will also involve optimizing the new inks for drop formation and the printing process. Part of the role is to collaborate with the printer component designers to implement system level changes to balance tradeoffs in the various components.

Aspects of this role include:

- Component development, refinement, and selection
- Formulation design (includes design for performance, manufacturing and chemical regulatory guidelines)
- Print system characterization
- Cross functional/ pan global team participation and leadership
- External supplier material co-development and manufacturing

Our group is part of a chemistry center of excellence that develops inks for the different print businesses. While we work across several sites, this project will partner with colleagues at our Corvallis, Oregon location. The Corvallis site includes a combination of R&D and manufacturing facilities with work ranging from MEMS fabs to development of large industrial printing presses.

Qualifications

- A recent (<1 year) PhD in chemistry, chemical engineering, or related field.
- Understanding of fundamental chemical mechanisms, key areas include
 - Pigment and dye chemistry
 - Polymers in solution
 - Organic and inorganic nanoparticle suspensions
 - Interfacial and surface chemistry
 - Proficiency in appropriate analytical instruments and the data interpretation
- Wet chemistry experience
- Strong written and spoken communication skills.
- Ability to creatively solve problems in a fast-paced product development environment
- Ability to work & effectively interact (remotely, as needed) with team members from other disciplines, projects, organizations, cultures, & companies.
- Demonstrated leadership, teamwork/interpersonal, communication and technical skills.
- Resourceful, creative, and flexible
- Fluency in English

HP Inc.
1070 Circle Blvd
Corvallis, Oregon 97330
hp.com



Desired qualifications

- Programming skills
- Familiarity with printing technology and color science
- Formulation experience is a plus

To apply, please visit our website: https://hp.wd5.myworkdayjobs.com/ExternalCareerSite/job/Corvallis-Oregon-United-States-of-America/Post-Doc-Ink-Chemist_3065784-2



Contract Position Available

Protein Mass Spectrometry Experience Required

Early First Quarter Start Date – 31 DEC 2021

Abbott Diagnostics Research Mass Spectrometry Group

PRIMARY JOB FUNCTION:

The primary function of this laboratory position is execution of mass spectrometry (LC-MS) experiments towards the characterization of protein reagents used in clinical immunoassay formulations.

CORE JOB DUTIES:

The successful candidate must be capable of skillfully and independently conducting multiple mass spectrometry (MS) techniques primarily applied to protein biomolecules. A specific requirement of the dedicated mass spectrometrist position includes expertise with hands on experience of structural characterization a variety of proteins (recombinant proteins, monoclonal antibodies, etc.).

The candidate must be capable of functioning within a cross-functional team involved with new immunoassay product development and able to anticipate critical assay development needs from biological molecule analysis. Ability to critically execute the analytical experiments and process analytical data and results with attention to detail is a necessity. Further skill will be required for interpretation and summarization of data from an array of analytical methods for diverse stakeholders, as well as design follow-up experiments where applicable. The position will require excellent team-working and adaptability competencies as well as strong technical communication skills, both in written and oral form. Candidate must also be effective with timely and accurate record-keeping and communication of laboratory work.

EDUCATIONAL REQUIREMENTS:

Ph.D. with at least 2 years relevant research or industrial experience as noted below or MS with at least 2 years relevant research or industrial experience as noted below or BS with at least 4 years relevant research or industrial experience as noted below.

EXPERIENCE:

Proven experience with standard mass spectrometry (MS) methods used to characterize protein biomolecules is required. Structural characterization by MS includes molecular weight profiling & peptide mapping, , lot-to-lot protein comparison . . De novo sequencing experience by MS is not required but would be helpful. Knowledge of test method characterization and/or validation processes, as well as execution of MS methods under established operating procedures would be beneficial.

SPECIAL WORK ACTIVITIES AND CONDITIONS:

Continuous sitting and standing for prolonged periods (more than 2 consecutive hours in an 8 our day). Keyboard use expected to be greater than or equal to 50% of the workday. Will also routinely work with laboratory chemicals and reagents.

Backup / Additional Description:

Performs research laboratory functions involving the design and execution of MS experiments toward characterization of protein reagents used in clinical immunoassay formulations. Responsible for compliance with applicable Corporate and Divisional Policies and procedures. Excellent team-working and adaptability competencies as well as strong technical communication skills, both in written and oral form. Degree(s) should be in either a biological or chemical science field.

Approximately 1/4 of the contractors in our biologics R&D area have been able to find full-time jobs at Abbott during the last two years.

For more information or to apply, please contact Jeff Fishpaugh at jeffrey.fishpaugh@abbott.com



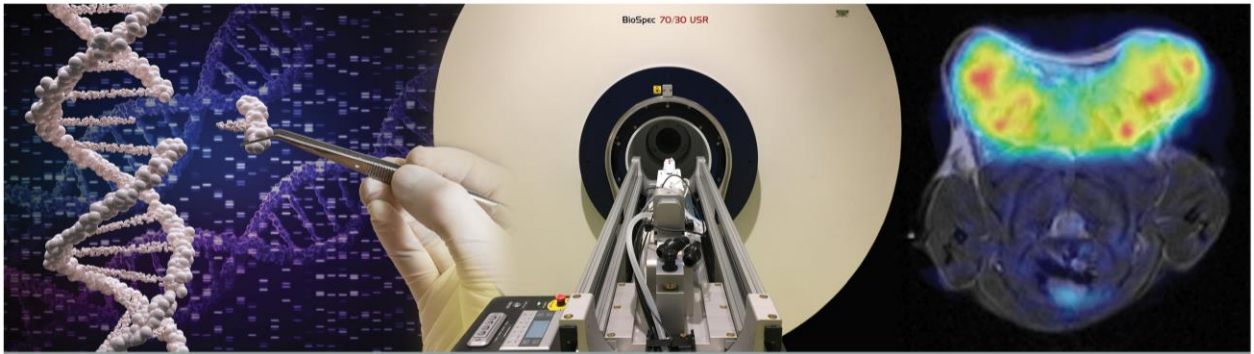
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Synthetic Biology and
Molecular Imaging Program
MICHIGAN STATE UNIVERSITY



Synthetic Biology and Molecular Imaging

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Department of Radiology

MICHIGAN STATE
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Biomedical Engineering

The Michigan State University SYNTHETIC BIOLOGY AND MOLECULAR IMAGING PROGRAM is a post-doctoral training program headed jointly by Dr. Assaf Gilad and Dr. Erik Shapiro in the Departments of Radiology and Biomedical Engineering. Housed in the new Institute for Quantitative Health Science and Engineering, this post-doctoral training program is geared towards talented PhD scientists with genetic and protein engineering backgrounds, to adapt and apply their scientific talents in the fields of biomedical imaging, synthetic biology and theranostics. The Program takes full advantage of the breadth of our molecular imaging systems, enabling imaging of molecules to rodents, large animals to humans, across projects in basic, translational and clinical science. For more information about the program and projects please contact:

Dr. Assaf Gilad gilad@msu.edu

Dr. Erik Shapiro shapir86@msu.edu



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. 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/>.

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. 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.

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](#)