

2013 WEEKLY BULLETIN
DEPARTMENT OF CHEMISTRY, NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS
June 24, 2013

- Monday, June 24: *Special Seminar*
 Dr. Taner Yildirim
 Tech K140, 4 pm
- Wednesday, June 26: *Dissertation Defense*
 Adam Catherman
 Silverman Hall, 4th Floor Conference Room, 1:30 pm
- PLU Career Panel*
 Tech L211, 4 pm
 Reception to follow
- Thursday, June 27: *Dissertation Defense*
 Dustin Hawker
 Tech K140, 2 pm

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

Arrivals and Departures

Emmanouil Manos joined the Kanatzidis group.

Isurika Fernando joined the Stoddart group.

Lukasz Koscielski successfully defended and is leaving the Ibers Group. He has taken a tenure-track Inorganic Chemistry professor position at the University of Puerto Rico at Cayey starting this August.

Upcoming Events

The X-Ray Diffraction facility of IMSERC is hosting the American Crystallographic Association's Summer Course in Chemical Crystallography, June 23rd to July 3rd. Twenty-eight attendees and 18 instructors from around the world will be participating in the 10-day intense workshop. Please be advised of the increased traffic in and around IMSERC for the duration of the course.

Catalysis Center Seminar: Prof. Nimir Elbashir of Texas A&M University in Qatar

Tuesday, June 25

12-1 pm in Tech M152

"Hydrocarbon Catalysis Research at Texas A&M University - Qatar"

Opportunities

The National Research Council of the National Academies sponsors a number of awards for graduate, postdoctoral and senior researchers at [participating federal laboratories and affiliated institutions](#). These awards include generous stipends ranging from \$42,000 - \$80,000 per year for recent Ph.D. recipients, and higher for additional experience. [Graduate](#) entry level stipends begin at \$30,000. These awards provide the opportunity for recipients to do independent research in some of the best-equipped and staffed laboratories in the U.S. Research opportunities are open to U.S. citizens, permanent residents, and for some of the laboratories, foreign nationals.

Detailed program information, including online applications, instructions on [how to apply](#) and a [list of participating laboratories](#), is available on the NRC Research Associateship Programs [Website](#) (see link above).

Questions should be directed to the NRC at 202-334-2760 (phone) or rap@nas.edu.

There are four annual review cycles.

Review Cycle: August; Opens June 1; Closes August 1

Review Cycle: November; Opens September 1; Closes November 1

Review Cycle: February; Opens December 1; Closes February 1

Review Cycle: May; Opens March 1; Closes May 1

Applicants should contact prospective Adviser(s) at the lab(s) prior to the application deadline to discuss their research interests and funding opportunities.

More detailed information and an online application can be found at www.nationalacademies.org/rap.

Tennessee Tech Department of Chemistry has an open position for a full-time temporary Biochemist. We have planned searches over the next several years for many tenure-track positions, and I am hoping to identify candidates for the temporary positions that would be excellent candidates for the tenure-track positions. Candidates will have the opportunity to further develop independent research during the term of their employment as space and funds allow. It should be noted that we have excellent NMR and Mass Spect instrumentation in addition to the normal suite of instrumentation found in any research active chemistry department, including the ability to carry out “omics” research. We are a Doctoral/STEM university also referred to as a Masters-Large University as designated by the Carnegie system. Our chemistry department runs a successful Masters Degree program, but we also participate in an interdisciplinary Ph.D. program. Our PhD students represent almost all areas of Environmental Chemistry (Analytical, Biochemical, Inorganic, Organic, Physical). We currently have 20 faculty. Our typical graduation rates include the following: BS Chem: 30-40 graduates/year MS Chem: 5-8 graduates/year PhD: 2-4 graduates/year. We are located in Cookeville, TN, about an hour outside Nashville, in the foothills of the Cumberland Mountains on the Cumberland Plateau. While the pay for the temporary position is \$43K/9-month contract, permanent positions are generally offered at approximately the CUPA rate for beginning assistant professors (currently ~\$59K/9-months). The cost of living is quite low in this area which should make this opportunity attractive for many individuals/families. The chemistry department website is <http://www.tntech.edu/chemistry> and our PhD program website is <http://www.tntech.edu/evs>. candidates should feel free to contact me (Jeff Boles) at JBoles@tntech.edu for further information should they desire to do so.

Postdoctoral Research Associate Position at Washington University in St. Louis

Department of Energy, Environmental, and Chemical Engineering

Under the supervision of Dr. Marcus Foston

Research Area: Sustainable Polymer Synthesis and Applications of Renewable Resources in High Performance Materials (<http://foston.eece.wustl.edu/>).

Qualifications: Independent and highly motivated candidates are sought with an earned Ph.D. in organic chemistry, polymer engineering, material science, or a closely related field. Expertise in air-free organic synthesis techniques, polymer chemistry (e.g., *anionic and controlled/living radical polymerizations*), and biomass utilization as well as significant experience with materials/processes characterization techniques (e.g., GPC, FTIR, SEM, NMR, and MS) is preferred. An additional requirement will be teaching graduate students air-free organic synthesis techniques.

Potential projects: include the synthesis (1) of silica nanoparticles with multi-block copolymer surface brushes as nano-rulers, (2) of polyhydroxylated polymers, copolymers, and nanocomposites from sugar-derived monomers, and/or (3) of all cellulose-based block copolymers.

Duration: The position is for one year with the possibility of extension based on performance and funding. The start date is flexible, but should ideally be no later than September 1, 2013.

Applications: Applicants should apply through <https://jobs.wustl.edu> (Job Opening ID: 24692), preparing a cover letter detailing relevant experience and research interests (2 pages max), curriculum vitae, and a list of three references. Please also email your cover letter and curriculum vitae to Dr. Marcus Foston

(mfoston@wustl.edu). Review of applications will begin immediately, however application not submitted to Washington University's online employment system will not be considered.

Relevant WUSTL Facilities: The Department of Energy, Environmental and Chemical Engineering (<http://eece.wustl.edu/>); Nanoscale Research Facility (a member of the National Nanotechnology Infrastructure Network (NNIN), supported by the NSF, <http://nano.wustl.edu/>); Center for Materials Innovation (<http://www.cmi.wustl.edu/>); Institute for Public Health (<http://publichealth.wustl.edu/>); McDonnell Academy Global Energy and Environment Partnership (<http://mageep.wustl.edu/>); among others.

Argonne Assistant Chemist Job Opening

Please see this link for job posting and application instructions:

<http://web.anl.gov/jobsearch/detail.jsp?userreqid=320713+CSE&lsBrowse=THISWEEK>

Worcester Polytechnic Institute (WPI) invites applications and nominations of candidates for the Richard T. Whitcomb Professorship in Biochemistry. The appointment will be made in the Department of Chemistry and Biochemistry (CBC) in the Arts and Sciences at WPI. The Department offers undergraduate and graduate (MS and PhD) degrees in Chemistry and Biochemistry. CBC is integral to WPI's ongoing major life science research initiative and five new faculty at the assistant, associate and full professor level were recently hired. This Professorship offers a generous start-up package, continued financial support for research and substantial laboratory space in the recently built, state-of-the-art Life Sciences research facility. The holder of the Whitcomb chair will be a dynamic scholar and teacher, with a strong track record of creativity and an internationally highly visible research program, studying biochemical systems at the molecular level. The successful candidate will have a strong record of continued funding, high impact publications, and a solid presence in the scientific community.

Interested candidates should submit a single pdf-formatted file including a cover letter, a curriculum vitae, statement of research and teaching interests, achievements and plans, and a list of three references to WhitcombSearchCBC@wpi.edu. Inquiries can be addressed to Dr. José Argüello (arguello@wpi.edu) Whitcomb Search Committee, Department of Chemistry and Biochemistry, Worcester Polytechnic Institute, 100 Institute Road, Worcester, MA 01609. Review of applications will commence immediately and continue until the position is filled.

AbbVie's Organic Chemistry Group in Process Research & Development has two openings for associate chemists. We are looking for self-motivated scientists with strong synthetic chemistry skills. A Masters of Science degree in Chemistry is preferred and the candidate must have a solid fundamental knowledge of organic chemistry, keen problem solving skills and laboratory research experience with compound preparation, purification, spectral analysis and interpretation. The successful candidate must work well in a team environment under mentorship of an experienced supervisor discovering, developing and executing chemical processes to prepare clinical drug candidates.

If you know someone who should be considered for one of these positions, please encourage him/her to apply by visiting our Careers web page at www.abbvie.com and search [12000000J4](#) or [13000001B8](#). Feel free to pass the message around your department.

AbbVie (NYSE:ABBV) is a global, research-based biopharmaceutical company formed in 2013 following separation from Abbott. AbbVie combines the focus and passion of a leading-edge biotech with the expertise and capabilities of a long-established pharmaceutical leader to develop and market advanced therapies that address some of the world's most complex and serious diseases. In 2013, AbbVie will employ approximately 21,000 people worldwide and markets medicines in more than 170 countries.

Wolfe Laboratories, Inc.

1) Postdoctoral Scientist Job Summary: We require a highly motivated Postdoctoral Scientist to work on protein stability & aggregation as it relates to therapeutic protein development. The current postdoctoral project is designed to understand the fundamental mechanism/s of protein instability, sub-visible particulate formation and aggregation using variety of chromatographic, biophysical and biochemical tools.

DUTIES AND RESPONSIBILITIES:

SCIENTIFIC RESPONSIBILITIES:

- Evaluate physical and biophysical properties of peptides and proteins relevant to drug development and subsequently communicate the interpretation and implication of results to clients.
- Develop analytical methods and characterize product variants
- Execute and oversee specialized analytical testing and generation of technical documents
- Maintain a strong awareness of current scientific literature, particularly in the area of protein characterization, and actively apply new concepts as appropriate.
- Develop and evaluate new cutting-edge technologies for protein product understanding, especially product heterogeneity and impact on safety and efficacy.
- Design experiments to develop pre-clinical and clinical formulations of drug candidates to support drug discovery and development.
- Design experiments to determine the stability in prototype clinical formulations, to detect and identify the decomposition products, and to achieve formulations with acceptable shelf-life.
- Perform laboratory experiments related to the above.
- Create presentations for outside scientific meetings and conferences to showcase Wolfe Laboratories' scientific leadership in the field of protein analysis and characterization.

CLIENT INTERACTION RESPONSIBILITIES:

- Interface with clients to develop an in-depth understanding of client objectives and define solutions to meet their program requirements
- Develop compelling approaches and solutions to address client needs
- Write persuasive proposals for the projects
- Regularly interact with clients to keep them abreast of project progress
- Write and review interim and final reports.

REQUIRED BACKGROUND AND EXPERIENCE:

- Ph.D. in Biochemistry, Biophysics, Chemistry or closely related disciplines
- In depth experience in the area of protein biophysical chemistry of proteins involving structure-folding-stability relationships. This includes purification, stability, kinetics and thermodynamics of folding of monomeric proteins, particularly as they relate to the pre-formulation and formulation development of new drugs
- Hands-on experience with chromatographic method development as well as techniques used for biophysical characterization of biopharmaceutical products such as calorimetry, spectroscopy, higher order structure analysis, protein mass spectroscopy, CE, HPLC, ELISA, and carbohydrate analysis.
- A demonstrated drive to apply technical knowledge to developing drug formulations
- Established track record of significant contributions as an individual technical expert
- Outstanding written and oral communication skills as well as polished and persuasive client presentation skills

ADDITIONAL DESIRABLE BACKGROUND:

- Post doctoral experience in analytical biochemistry or closely related discipline.
- Good understanding of excipient and ligand interaction with proteins
- Evaluation of thermodynamic and kinetic models

Interested candidates are requested to email a copy of their resume with a cover letter including salary history to: steve.pangione@wolfelabs.com

2) Quality Systems Supervisor

An opportunity exists for an exceptional individual in the area of Quality Systems, focusing on the management of Quality Control and Quality Assurance. The QS Supervisor will work under the guidance of the Associate Director of Quality to implement and maintain Quality Systems supporting the Wolfe Laboratories GLP/GMP/GCP analytical testing and characterization program. The individual must be highly motivated toward increasing level of responsibility and leadership. The individual must be willing to receive a combination of on the job and outside training on GLP/GMP/GCP operations.

Responsibilities include:

- Help to maintain and grow all Quality Systems including, but not limited to the management of:

- Internal audits
- Vendor audits
- Training
- Documentation
- Laboratory controls
- Non-conformances and CAPA
- Ensure compliance with GLP, GMP, and GCP regulations and industry standards as they relate to Wolfe Laboratories activities
- Provide Quality Assurance oversight for GLP, GMP, and GCP-related activities
- Manage Quality Assurance review of analytical test results, investigations, reports and protocols for GLP, GMP, and GCP projects
- Manage internal and external audits
- Lead Quality Assurance investigations of non-conformances by analyzing data, interpreting results and recommending appropriate corrective actions to area managers
- Contribute to the efficiency of Quality Processes by identifying and suggesting improvements and eliminating non-value added work
- Contribute to writing of proposals or technical agreements for GLP/GMP/GCP projects

Desired Background and Experience:

The successful candidate will hold a Master's or Ph.D. degree in a science-related field, with 1–3 years of experience in an equivalent role. Previous laboratory experience required: experience in manufacturing operations for pharmaceutical/biopharmaceutical or drug development organizations in activities supporting GMP or GLP functions preferred. Ability to apply established principles, theories and concepts in areas of laboratory operations. Can propose, design and implement solutions to solve or prevent problems that have a negative impact on quality of executed work or on compliance with Wolfe Laboratories Quality Systems and GLP/GMP/GCP regulations. Familiarity with regulatory guidance documents is highly desirable. Good communication and interpersonal skills are essential for this position, as it requires working with both internal and external clients, vendors and suppliers. Prior experience delivering trainings is also helpful. Interested candidates are requested to email a copy of their resume with a cover letter including salary history to: employment.wolfelabs@wolfelabs.com.

Wolfe Laboratories, Inc. (WLI), located in Watertown, MA, is a premier contract research organization that provides integrated early drug development solutions to the biopharmaceutical industry. Wolfe Laboratories is an essential element of the drug development ecosystem, recognized by global and virtual biopharmaceutical companies as a science-driven organization whose mission is to provide outstanding discovery and development services tailored to its clients' needs for rational formulation development. Wolfe Laboratories integrates the critical path components of early development to ensure that programs advance while meeting rigorous scientific demands with flexibility to address dynamic challenges and aggressive timelines.

Wolfe Laboratories' vision is to improve human health, and we continue to strive towards that goal by embracing our core values of integrity, excellence and teamwork. The company has a high percentage of repeat clients, which is a testament to its long-term commitment of continual investment in its capabilities to meet biopharma's growing demand for high quality, integrated early development services. We have a steady 12-year track record of growth, success and profitability. For more information visit us at: www.wolfelabs.com.