

2013 WEEKLY BULLETIN
DEPARTMENT OF CHEMISTRY, NORTHWESTERN UNIVERSITY
EVANSTON, ILLINOIS
January 13, 2014

Tuesday, January 14: *Faculty Lunch Seminar: Peter Stair*
Tech K140
12:00-1:00pm

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

BIP

Meets every Friday at 3:00pm in Tech K140

Arrivals

Jefferson Bates joined the Shiozaki Group
Laura Ruvuna joined the VanDuyne Group

Opportunities

Request for Applications Center for Cancer Nanotechnology Excellence (NU-CCNE) Pilot Research Projects The Northwestern University Center for Cancer Nanotechnology Excellence (NU-CCNE) invites applications for pilot research projects that integrate the basic and clinical sciences in efforts to develop and apply nanotechnology to cancer research and accelerate the application of this science to the clinic.

Application due date: February 7, 2014

For more information and application documents contact: Kathleen Cook (k-cook@northwestern.edu)

I. Research Objectives

Nanotechnology has the potential for widespread applications in cancer research and treatment, and this initiative will support the development of nanomaterials and nanoscale devices for molecular imaging and early detection, *in vivo* imaging, reporters of efficacy, multifunctional therapeutics, prevention and control, and research enablers. The intent of this RFA is to establish pilot projects in new and emerging areas that have potential to significantly advance the NU-CCNE research agenda.

The over-arching goals of the NU-CCNE initiative are to design and test nanomaterials and nanodevices and to translate their use into clinical research, resulting ultimately in the introduction of novel diagnostic tools and techniques to modulate and overcome cancer processes.

II. Background

The NU-CCNE is a unique collaboration between the Robert H. Lurie Comprehensive Cancer Center (RHLCCC) and the International Institute for Nanotechnology (IIN) and was established by a grant from the NIH National Cancer Institute in late 2005 and received funding for an additional five years in Phase 2 of the Alliance Program. The Center brings together a highly multidisciplinary group of nano-scientists, cancer biologists, engineers, and clinicians with the primary research goal of designing and testing nanomaterials and nanodevices for their translational application into the clinic, thereby ultimately developing novel and innovative nanoscale technologies for targeting cancer detection, diagnosis and treatment. Research addresses four thematic/programmatic areas identified by the Nano Alliance for applying nanotechnology approaches in combating cancer: (1) molecular imaging and early detection of cancer; (2) *in vivo* imaging; (3) multifunctional therapeutics; and (4) research enablers. Research is organized into four highly multidisciplinary research teams. Each of these projects addresses an important cancer problem, and has a distinct focus to promote development

of a nanotechnology platform for ultimate application in the clinic. Please visit the NU-CCNE website for more information www.ccne.northwestern.edu.

In addition to the four research teams, the structure of the NU-CCNE includes funding for pilot projects. This mechanism allows the Center to provide seed funding for new and emerging areas that could potentially develop into new and novel nanoplatforms.

III. Progress Reviews – Milestones and Evaluations

The progress of the pilot projects will be reviewed bi-annually by the NU-CCNE and the NCI to assure that satisfactory progress is being made in achieving the project objectives.

All applications must include a specific section labeled “Milestones.” Milestones should be well-described, quantitative, and scientifically justified and not simply a restatement of the specific aims. Rather, the milestones should offer a timeline and a “pathway” for the development of the proposed technology. These milestones will be used to judge the success of the proposed research.

The project chosen will be responsible for submitting NCI required progress reports and updated milestones on-time as requested.

IV. Award Information

The NU-CCNE will commit \$52,500 total (in direct costs) to fund one pilot project each year. All applications will be reviewed by the NU-CCNE Executive Committee. Final determinations will be forwarded to the NCI for confirmation prior to the release of funds.

Pilot Projects should be short term (12 months) with a possibility of extension based on progress evaluation. Potentially, pilot projects may lead to larger research activities through seeking of separate funding in their later stages.

Although the financial plans of the NU-CCNE provide support for one pilot project each year, awards pursuant to this funding opportunity are contingent upon the availability of funds and the receipt of a sufficient number of meritorious applications.

PLEASE NOTE all awarded funds must be expended by the end of the period or they will be revoked.

Although the budget period start date for this award is 2/1/2014, this award includes funds for 12 months of support. Allowable preaward costs may be charged to this award, in accordance with the conditions outlined in the NIH Grants Policy Statement, (December 2003).

V. Application and Submission Information

Applications must be prepared in Arial 11 pt font using the attached research grant application and are limited to a maximum of ten total pages allocated as follows:

1. Face page (not to exceed 1 page)
2. Project description (not to exceed 3 pages including project specific milestones)
3. Budget (not to exceed 1 page)
4. Biographical Sketch for PI (not to exceed 4 pages)

Applications must be submitted electronically to Kathleen Cook (k-cook@northwestern.edu).

Department of Chemistry, Graduate School of Science, The University of Tokyo invites applications for non-tenure track faculty positions at the level of Associate and Assistant Professors in the field of theoretical and/or computational chemistry which assists experimental chemistry. Applicants should be expected to demonstrate their ability to perform cutting-edge, interdisciplinary, and collaborative research as well as to teach courses at both the undergraduate and graduate levels with other faculty in the department. A Ph.D. or equivalent degree is required by date of hire. The department strongly encourages applications from women and foreign nationals. The department expects selected candidates to start as early as possible. The appointment of each position is a maximum of 5 years long, but extendable for another period of up to 5 years, depending on his/her performance in research and teaching. The deadline for applications is January 20, 2014.

An applicant must include the following documents in his/her application package: (1) a detailed curriculum vitae, (2) a list of publications, (3) copies of up to five publications, (4) a statement of previous research and future research interests (A4-sized or similar, up to 2 pages), (5) a statement of previous teaching experience and future teaching interests, (6) a list of the name and contact information (mailing address, e-mail address, and phone number) of at least two references.

Applicants should write "Application for the faculty position in the Department of Chemistry" in the subject line of their e-mail and send the application package to Department Head Tatsuya Tsukuda: tsukuda@chem.s.u-tokyo.ac.jp

IHME Post-Bachelor Fellowship Program The Institute for Health Metrics and Evaluation (IHME) at the University of Washington offers a Post-Bachelor Fellowship (PBF) program that combines a full-time professional position, academic research, and education with progressive on-the-job training and mentoring from a renowned group of professors. This program provides Post-Bachelor Fellows the option to pursue a fully-funded Master of Public Health degree at the University of Washington. The program description and instructions on how to apply are attached. Our application deadline is January 15, 2014.

Further information about the Post-Bachelor Fellowship program and how to apply can also be found here: [IHME Post-Bachelor Fellowship](#). Keep up with the PBF program by visiting us on [Facebook](#).

Reaxys PhD Prize 2014 The Reaxys PhD Prize is awarded for original and innovative research in organic, organometallic and inorganic chemistry, which demonstrates excellence in methodology and approach by a candidate currently studying for a PhD or having completed a PhD after January 1, 2013. Each year submissions are reviewed by leading experts in their fields to select 45 finalists. From these, 3 winners are then chosen to receive the main prize.


- **\$2000 prize money** for each of the 3 Prize Winners
- Invitation to the **2014 Reaxys Inspiring Chemistry Conference** for the Winners and Finalists (includes free registration, 4* hotel accommodation and travel bursaries)
- Membership of the prestigious **Reaxys Prize Club** for winners and finalists only

Now in its 5th year, the Reaxys PhD Prize has already become the world's most important prize for Chemistry PhD Students. To-date, over 1700 applications have been received from well over 400 universities from across the globe.

SUBMISSIONS WILL BE ACCEPTED FROM DECEMBER 16, 2013 UNTIL FEBRUARY 14, 2014

The review and decision process is managed by six coordinators :

Prof A. G. M. Barrett, Imperial College London
Prof M. Jansen, Max Planck Institute for Solid State Research
Prof E. Nakamura, University of Tokyo
Prof G. Parkin, Columbia University
Prof B. M. Trost, Stanford University
Prof H. N. C. Wong, Chinese University of Hong Kong

Requirements, details and submission form are available on : Inspiringchemistry.reaxys.com/phdprize
 [facebook.com/ReaxysInspiringChemistry](https://www.facebook.com/ReaxysInspiringChemistry)

Wolfe Laboratories, Inc Industrial Post Doctoral Scientist We require an experienced physical organic chemist with broad knowledge of and significant hands on experience with small molecule analytical technology including chromatographic and physical characterization methods. This individual will plan and execute experiments in physicochemical analysis and structural characterization

Duties and Responsibilities:

Scientific Responsibilities:

- Evaluate physicochemical properties of small molecules 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 drug substance characterization, and actively apply new concepts as appropriate.
- Develop and evaluate new cutting-edge technologies for small molecule product understanding.
- 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 small molecule 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 Physical Organic Chemistry, Pharmaceutical Chemistry, Medicinal Chemistry, Process Chemistry, Chemical Engineering, or closely related discipline
- In depth expertise in physical organic chemistry and the structural characterization of small molecules as they relate to the pre-formulation and formulation development of new drugs
- Expertise in the field of physicochemical analysis and structural characterization
- Hands-on experience with method development as well as analytical methods used for physicochemical characterization of pharmaceutical products such as spectroscopy and HPLC analysis.
- A demonstrated drive to apply technical knowledge to developing drug formulations
- Established track record of significant contributions as an individual technical expert as well as a leader of small teams
- Outstanding written and oral communication skills as well as polished and persuasive client presentation skills

Additional Desirable Background:

Post doctoral experience in physical organic chemistry or closely related discipline
Capability with DSC, TGA, and/or lyophilization.

WHERE THIS JOB COULD LEAD:

At Wolfe Laboratories Inc., we pride ourselves on retaining and growing our team members, and ensuring they are developing to their full potential. This position can provide many different avenues for advancement, including:

- Training towards becoming a Project Manager
- Leader of an innovative business line

- Become a Lead Technical Researcher
- Managing a team of Postdoctoral employees

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

Wolfe Laboratories, Inc. (WLI), founded in 1999, and 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.

For more information visit us at: www.wolfelabs.com.

Wolfe Laboratories, Inc is an Equal Employment Opportunity employer.

Wolfe Laboratories, Inc Postdoctoral Scientist 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 and high throughput biophysical methods to 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, Biomolecular engineering, Organic Chemistry, Chemical engineering or closely related disciplines
- In depth experience in the area of protein biophysics 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.
- Strong knowledge of Organic Chemistry principles
- 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

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- Leader of an innovative business line
- Become a Lead Technical Researcher
- Managing a team of Postdoctoral employees

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

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For more information visit us at: www.wolfelabs.com.

Wolfe Laboratories, Inc is an Equal Employment Opportunity employer.

Department of Preventive Medicine, Feinberg School of Medicine, Northwestern University We seek a highly motivated individual with mass spectrometry experience to fill a funded postdoctoral fellowship position in the Department of Preventive Medicine at Northwestern University. The position requires very strong analytical skills and experience with database searching, laboratory instrument operating systems, and statistical analysis. A preference will be given to candidates with expertise in LC-QqQ, OrbiTrap, and FT-ICR mass spectrometry. The position will involve development and application of novel targeted and discovery based biomarker approaches for investigating environmental risk factors for chronic diseases and cancers. To apply for this position please email CV and cover letter to Dr. William E. Funk (w-funk@northwestern.edu).

The Department of Chemistry at the University of Nevada, Reno has initiated a new search for a tenure-track Assistant Professor in any area of experimental chemistry. The successful candidate will establish an active and innovative research program in any area of experimental chemistry, while maintaining a strong commitment to undergraduate and graduate education. Preferred research programs would complement and extend current faculty research (see <http://www.chem.unr.edu/faculty/research.php>) and provide interdisciplinary research opportunities with other departments and colleges on campus.

The complete position description including minimum qualifications and application instructions/links may be found at <http://www.chem.unr.edu>. We especially encourage applications from women and members of under-represented groups. Review of complete applications will commence January 4, 2014. Applications must be submitted online (<https://www.unrsearch.com/postings/13973>). The University of Nevada, Reno is an Equal Employment Opportunity/Affirmative Action employer.

The University of Nevada, Reno is the land-grant institution for the State of Nevada with an enrollment of 18,000 students. Our department offers B.S., M.S., and Ph.D. degrees in chemistry. The department has a total of 17 full-time academic faculty members, is housed in a four-story building, and is well equipped with modern research instrumentation. We have recently moved our undergraduate teaching laboratories into new instructional facilities in the Davidson Mathematics and Science Center. For more information about the department and its programs, I invite you and potential candidates to visit our web site at <http://www.chem.unr.edu>.

Nestled in the valley of the Truckee River on the eastern slope of the Sierra Nevada, Reno offers an excellent quality of life. The region combines a mild high desert climate with a large variety of nearby recreational opportunities. Lake Tahoe is less than an hour away by car, while Yosemite National Park and the Black Rock Desert are both within a three-hour drive. Featuring a multi-seasonal tourist industry, Reno also offers entertainment and cultural opportunities far exceeding those typically found in a city of 400,000.

The Institute of Chemistry of the National Autonomous University of México (UNAM: Universidad Nacional Autónoma de México): www.iquimica.unam.mx

We are in the process of expanding our research areas and would like to contact researchers who are interested in developing an academic career in México. We are the largest University in Latin-America and one of the most prestigious ones. Our institute also has considerable infrastructure, comparable with that of Universities in the U.S. and in Europe.

We are specifically considering expanding our research program into areas that include catalysis, structural biochemistry, metabolomics, supramolecular chemistry, functional molecular materials, molecular sensors and photo-induced molecular processes. We will be hiring several researchers for academic positions at the Institute of Chemistry starting in 2014. Candidates should have a PhD degree in chemistry, postdoctoral experience and a strong commitment to excellence.

These positions are similar to a tenure-track professorship and will require the development of an independent research program, teaching a single three hour/week course per semester at UNAM and participating in our graduate programs (MSc. and PhD).

Candidates should contact : Dr. Jorge Peón, Academic Secretary, Instituto de Química UNAM, Circuito Exterior, Ciudad Universitaria, D. F. México +52 55 5622 4457 or via e-mail at jpeon@unam.mx sending a CV and a three page description of a proposed research program.

The School of Chemistry at The University of Glasgow We have a lectureship (assistant professorship) position available in physical chemistry in the School of Chemistry at the University of Glasgow. The ideal candidate would complement and enhance existing strengths in theoretical and experimental biomolecular structure & dynamics, ultrafast chemical physics, and photonic metamaterials. The closing date for applications is 6 January 2014. See <http://tinyurl.com/nvt6k2l> while more information can be obtained from Klaas Wynne Head of Physical Chemistry Section Professor of Chemical Physics klaas.wynne@glasgow.ac.uk

The Department of Bioengineering at Stanford University which is jointly supported by the Schools of Medicine and Engineering, invites applications for a tenure-track faculty appointment at all levels (Assistant, Associate and Full Professor). Appointments will be made at the rank commensurate with the applicant's experience. Applicants are expected to have a doctoral degree in an engineering or science discipline related to biology and/or medicine.

The Department of Bioengineering is seeking energetic and visionary individuals in any area of bioengineering, including interdisciplinary fields. New faculty members are expected to develop outstanding bioengineering research and teaching programs. We have a particular interest in emerging frontiers in global health, the environment, energy, agriculture, and biotechnology, but we are open to applications from individuals working on a broad range of research areas. We are interested in applications from individuals focused on areas ranging from fundamental biosciences to applied research. Ideal candidates will demonstrate strong communication and leadership skills, and will be able to actively contribute to our rapidly growing department at Stanford.

A strong commitment and skill set in graduate and undergraduate teaching and advising is essential. Teaching responsibilities will include participation in and development of both undergraduate and graduate courses, and strong engagement in the core curriculum. The supervision of doctoral students and academic advising of students at all levels is expected.

Applications will be accepted only through an on-line process. Applicants should visit our recruitment site at: <http://soe-apps.stanford.edu/FacultyApplyBioE>. This web site will be open to receive applications starting October 4, 2013 and applications will continue to be accepted until the position is filled. Applications should include a brief research and teaching plan, a detailed resume including a publications list, and the names and addresses of at least three references.

Stanford University is an equal opportunity employer and is committed to increasing the diversity of its faculty. It welcomes applications from women and minority groups, as well as others who would bring additional dimensions to the university's research, teaching and clinical missions.

The Department of Chemistry at The University of British Columbia Professor Peter Legzdins of The University of British Columbia requests applicants for postdoctoral positions with his research group. Professor Legzdins is looking for excellent candidates for postdoctoral positions in catalytic transition-metal organometallic chemistry that will become available in his research group next spring.

Current projects are focused on the selective activation and functionalization of hydrocarbon C-H bonds; see, for example, *Acc. Chem. Res.* **2013**, DOI: 10.1021/ar400108p; published on the Web on September 18, 2013 and *Organometallics* **2013**, *32*, 5561-5572. The website at <http://www.chem.ubc.ca/our-people/profiles/peter-legzdins> provides more details of the specific chemistry that is currently being investigated. Experience with the synthesis and complete characterization of organic and air-sensitive organometallic compounds is essential, and experience with kinetic and mechanistic studies and the development of catalytic systems is desirable for these positions.

The positions are initially for one year with the strong possibility of a one-year renewal. The salary range is as specified by the Natural Sciences and Engineering Research Council of Canada and depends on qualifications, and full benefits are provided. Interested applicants should send a curriculum vitae and arrange to have two or three letters of reference sent to Professor Legzdins directly by email. They should also feel free to contact him either at legzdins@chem.ubc.ca or by telephone at 604-822-2987.

National Institute of Standards and Technology We are seeking post-doctoral researchers to study electronic structure and ultrafast interfacial dynamics at organic heterojunctions. One focus is the use of time-resolved two-photon photoelectron spectroscopy (TR-2PPE) to follow exciton and charge dynamics at the donor-acceptor interfaces. In conjunction with this effort we also apply scanning tunneling microscopy and spectroscopy (STM, STS) to measure interfacial molecular structure, nanoscale phase separation, and local electronic structure. We are also interested in new methods to follow charge transfer and photovoltage at interfaces with nanosecond to picosecond resolution. Finally, we also have interests in the application and further development of THz measurement techniques. Experience with ultrafast laser systems, UHV techniques, photoelectron spectroscopy, and/or STM is desirable but not a requisite. We welcome inquiries from applicants with interests in any of these areas. Positions will be funded through the National Research Council postdoctoral program. *For further information contact:* Dr. Steven Robey Steven.robey@nist.gov or Dr. Edwin Heilweil Edwin.heilweil@nist.gov

The Department of Chemistry at The University of Toledo invites applications for a tenure-track faculty position. Applicants are immersed in the fields of bioanalytical chemistry and biochemistry are particularly sought, however researchers from any analytical or biochemical discipline are encouraged to apply. The appointment is expected to be at the Assistant Professor level, but a senior appointment may be considered for faculty with strong records of both research accomplishments and funding. A Ph.D. degree in chemistry, biochemistry or a closely related field is required; postdoctoral experience is preferred. The successful candidate will begin their appointment August 2014, pending budgetary approval, and will participate in undergraduate and graduate (M.S. and Ph.D.) teaching and research in their area of expertise, and will also be expected to develop and maintain a vigorous, externally-funded research program.

The University of Toledo is a comprehensive state institution with an enrollment of approximately 21,000 students located on an attractive suburban campus. The University offers competitive salaries and an excellent start-up and benefits package. Further information about the department is available at (<http://www.utoledo.edu/nsm/chemistry/>). Applicants must submit a cover letter, their curriculum vitae, a summary of research plans, and a statement of teaching philosophy as a single pdf file submitted to <https://jobs.utoledo.edu> and should also arrange to have three recommendation letters sent to: utchem@utoledo.edu. Review of applicants will begin on December 1st and continue until this position is filled. The Department encourages applications from minorities, women and persons with disabilities. The University of Toledo is an Affirmative Action/Equal Opportunity Employer *MIFIDN*.

The University of Notre Dame announces six new faculty positions in Analytical Sciences and Engineering. The positions range from junior level through tenured senior faculty to endowed chair appointments. Successful candidates may choose to establish their programs in Notre Dame's Department of Chemistry and Biochemistry or the Department of Chemical and Biomolecular Engineering, or both. Since 2006, Notre Dame has initiated the fastest growing analytical sciences program in the US, and now seeks to build upon that momentum by leveraging the initial investment in excellence with a disciplined hiring program designed to attract world-leading scholars in the chemical measurement sciences.

These positions will impact the analytical sciences by taking advantage of parallel efforts in the targeted departments, the university, the region, and the state of Indiana - including: (a) strongly overlapping hiring initiatives in Notre Dame's Colleges of Science and Engineering, (b) investments in molecular diagnostics through the Advanced Diagnostics & Therapeutics strategic research investments, (c) initiatives to establish degree programs in analytical sciences, and (d) state-wide education and research initiatives developed in concert with colleagues at Indiana University and Purdue University.

The positions include salary, start-up funding and laboratory space commensurate with level. Junior candidates should include a cover letter, curriculum vitae, detailed research plan, and statement of teaching interests directed to Paul W. Bohn/Norman J. Dovichi, Chair, ASEND Search Committee (<https://academicjobsonline.org/ajo/jobs/3091>). Candidates must also arrange to have at least three letters of recommendation sent to the search committee via the application website, although senior applicants can apply in confidence. Review of applications will commence immediately and will continue until suitable candidates are identified.

The University of Notre Dame is an equal opportunity employer with a strong institutional commitment to diversity and endeavors to foster a vibrant learning community animated by the Catholic intellectual tradition. <http://chemistry.nd.edu/>

The University of Notre Dame As part of a campus-wide initiative associated with the Harper Cancer Research Institute (<http://HarperCancer.nd.edu/>), multiple open-rank tenure-track faculty positions are available at the University of Notre Dame in the broad area of cancer research. Individuals engaged in basic and translational cancer research using organotypic and/or animal models of cancer are especially encouraged to apply. A demonstrated record of collaborative and interdisciplinary research is strongly preferred.

Successful candidates will be appointed in either the Department of Biological Sciences or the Department of Chemistry and Biochemistry and will be expected to establish a vigorous extramurally supported research program in cancer biology/biochemistry, participate in collaborations within and across disciplines, and contribute to excellence in undergraduate and graduate education. Senior applicants should have a record of national and international distinction. Key research facilities include the AAALAC-accredited Freimann Animal Facility, Notre Dame Integrated Imaging Facility, Center for Zebrafish Research, Eck Institute for Global Health, Keck Center for Transgene Research, Center for Rare and Neglected Diseases, Lizzadro Magnetic Resonance Research Center, Center for Research Computing, and core facilities for proteomics, genomics and bioinformatics. Additional information can be found at <http://research.nd.edu/core-facilities/>.

The Harper Cancer Research Institute represents a collaboration between the University of Notre Dame and Indiana University School of Medicine-South Bend (<http://medicine.iu.edu/southbend>) and is housed in 55,000 square feet of new research space. The University is also engaged in the Indiana Clinical and Translational Sciences Institute (I-CTSI) partnership with Indiana University School of Medicine (Indianapolis) and Purdue University.

The positions include competitive salary, start-up funding and laboratory space. Applicants should upload a cover letter, curriculum vitae, detailed research plan, and statement of teaching interests directed to M. Sharon Stack, Director of the Harper Cancer Research Institute (<https://academicjobsonline.org/ajo/jobs/2962>). Candidates must also arrange to have at least three letters of recommendation sent directly to the search committee via the application website, although senior applicants can apply in confidence. Review of applications will commence immediately and will continue until suitable candidates are identified. The University of Notre Dame is an equal opportunity employer with a strong institutional and academic commitment to diversity and endeavors to foster a vibrant learning community animated by the Catholic intellectual tradition. <http://chemistry.nd.edu/>

The Department of Chemistry at Hendrix College (www.hendrix.edu/chemistry) is seeking to fill a tenure-track position to commence in August 2014. A Ph.D. is required and postdoctoral research experience is strongly preferred. Candidates must be committed to excellence in undergraduate teaching and sustainable research.

Hendrix has a strong dedication to interdisciplinary teaching through the common freshman course, The Engaged Citizen, and experiential learning, including research, as evidenced by the Odyssey Program (www.hendrix.edu/odyssey). The typical annual teaching load is 4 lectures and 4 laboratories. The College demonstrates its commitment to research by assigning a portion of the standard teaching load for chemistry faculty to research with undergraduates. The successful candidate will receive 50% time reassignment for

research during the first year in this position and 25% thereafter with continued research success. The department is housed in a modern facility dedicated in 2001 that is a combination of recently constructed and completely renovated buildings. Ample laboratory space is available for both teaching and research, and competitive start-up funding will be provided.

Teaching responsibilities would include introductory chemistry courses and a discipline-specific upper-level course. Candidates able to develop interdisciplinary offerings in materials or environmental chemistry would be of particular interest. The specific research area is open though the typical anticipated disciplines are inorganic, analytical or physical.

Hendrix is a distinguished liberal arts college of just over 1400 students with an endowment of \$181 million. The College, related to the United Methodist Church, shelters a chapter of Phi Beta Kappa. In spring of 2013, the College was named the nation's #2 "up-and-coming liberal arts college" by US News and World Report. Along with curricular innovations such as the Odyssey Program and the Engaged Citizen, Hendrix has recently completed major state-of-the-art athletic facilities (2008 and 2013) and a new Student Life and Technology Center (2010). Additionally, the new 90 acre "Academic Village" neighborhood is adjacent to the campus with popular restaurants and student apartments along with the campus bookstore and single-family houses with a creek walking trail.

The Department of Chemistry consists of eight faculty members supported by a full time laboratory manager and a full-time position devoted to instrumentation maintenance, laboratory development, and chemical hygiene duties. Chemistry faculty members serve the majors in Chemistry, as well as Biochemistry/Molecular Biology, Chemical Physics, and Environmental Studies. Virtually all of our majors are active in research with faculty and present their research at National ACS Meetings. For example, last spring, 25 students presented their research at the 2013 Spring National ACS meeting in New Orleans accompanied by 6 faculty and staff.

The Department has benefited from a major Department Development Award from Research Corporation, as well as by numerous research and/or instrumentation grants from NSF, NIH, ACS-PRF, Research Corporation, the Camille and Henry Dreyfus Foundation, the Food Allergy & Anaphylaxis Network, and the Sturgis Foundation. A pioneering green chemistry laboratory program has been implemented in the General and Organic Chemistry labs (www.hendrix.edu/greenchemistry). The junior year of the major is distinguished by an integrated, year-long Advanced Techniques in Experimental Chemistry laboratory.

Department of Chemistry and Biochemistry at California State University, Long Beach is accepting applications for an Assistant/Associate Professor of Biochemistry beginning August 18, 2014 (Fall 2014 semester) Salary commensurate with qualifications and experience.

MINIMUM QUALIFICATIONS: Ph.D. in Biochemistry or closely related discipline; strong record of research productivity; demonstrated potential for developing and sustaining an independent externally funded research program involving undergraduate and graduate (MS) students leading to peer-reviewed publications; potential for effective teaching in Biochemistry; commitment to and/or expertise in educating a diverse student population. Candidates in all areas of Biochemistry will be considered.

DESIRED/PREFERRED QUALIFICATIONS: Post-doctoral research experience; preference will be given to candidates who can complement research interests of existing faculty and/or utilize existing instrumentation.

DUTIES: Teach undergraduate lecture and laboratory courses in Biochemistry, and graduate level courses in the area of specialty; supervise undergraduate and graduate student research; develop and sustain an independent and externally funded research program involving undergraduate and graduate students leading to publications (research start-up funds are available); participate in activities serving the department, college, university, and community.

The Department of Chemistry and Biochemistry at California State University, Long Beach is committed to building a more diverse faculty, staff, and student body as it responds to the changing population and educational needs of California and the nation. We seek applicants and nominations from those who have

experience teaching, mentoring, and developing research in ways that effectively address individuals from historically underrepresented backgrounds. California State University, Long Beach is an affirmative action/equal opportunity employer.

REQUIRED DOCUMENTATION: Please submit the following: letter of application addressing the minimum and desired/preferred qualifications; curriculum vitae with current email address; research proposal involving lab, major instrumentation and start-up needs; statement of teaching philosophy; statement of ability to work in an ethnically and culturally diverse campus; and a copy of transcript from the institution awarding the highest degree. Three current confidential letters of recommendation must be independently provided by references.

Finalists will also be required to submit a signed SC-1 form and an official transcript.

Electronic files from applicants and reference letters should be sent to chemsearch3@csulb.edu

The Department of Chemistry at the University of Connecticut Applications being accepted for two Assistant/Associate/Full Professor nine-month, tenure-track appointments starting in August, 2014. Positions will be in the Green Emulsions, Micelles and Surfactants (GEMS) Center, a new collaborative Center in the Department of Chemistry (gems.uconn.edu). Applicants are sought with experience in any aspect of research on surfactant-based nanoparticles, aggregates, or films. Research areas will be considered in the broadest sense with the aim of recruiting individuals best suited to contributing to GEMS.

Minimum Qualifications: Applicants must have a Ph.D. (or equivalent) in Chemistry or a closely related field. Postdoctoral experience is preferred. The ideal candidate will have an outstanding record of research accomplishments and strong oral and written communication skills.

Successful applicants will be expected to develop well-funded, nationally and internationally recognized research programs and to be involved in GEMS collaborations. Simultaneous excellence in teaching at undergraduate and graduate levels is also required. Salary and rank will be determined based on qualifications.

To apply, please visit Academic Jobs Online at <https://academicjobsonline.org> to submit a cover letter, curriculum vitae, a detailed description of research projects and a brief statement of teaching philosophy and interest. Additionally, please follow the instructions in Academic Jobs Online to direct three reference writers to submit letters of reference on your behalf. Screening of applications will proceed immediately. Please include the search number 2014172 with all correspondence.

The University of Connecticut is an EEO/AA employer. Qualified applicants who can advance the diversity of our research and teaching mission are strongly encouraged to apply.

The Department of Chemistry and Biochemistry at Loyola University Chicago invites applications for a tenure track position at the Assistant Professor level in inorganic chemistry. Applicants from all areas of inorganic chemistry will be considered. A Ph.D. degree and postdoctoral experience in chemistry or in a closely related field are required. The successful candidate will be expected to maintain an internationally competitive, externally funded research program and participate in undergraduate- and graduate-level teaching. The Department offers PhD, MS, and ACS approved BS degrees. For more details about the department, visit <http://www.luc.edu/chemistry>. Candidates should complete an online application at www.careers.luc.edu, with a cover letter, a *Curriculum Vitae*, and a detailed description of research and teaching interests. Applicants should provide the names and email addresses of three individuals prepared to speak to their professional qualifications for this position. Review of applications will begin on November 15, 2013 and applications will be accepted until the position is filled. Underrepresented minorities and women are especially encouraged to apply. *Loyola University Chicago is An Equal Opportunity/Affirmative Action Employer.*

The Department of Chemistry and Biochemistry at Florida State University seeks to fill a tenure-track faculty position at the Assistant Professor level beginning August 5, 2014. The Department is particularly interested in individuals with research interests in organic synthesis and/or chemical biology. Appointees will be

expected to develop a vigorous, externally supported research program and to teach both undergraduate and graduate courses. Successful candidates will have a Ph.D. and postdoctoral training in a relevant field. The department will begin to evaluate application materials November 1st, 2013. The search process will continue until the position is filled.

Please **apply online** with curriculum vitae, statements of teaching and research philosophy, and the names of five references.

Questions can be e-mailed to the Search Committee at organicsearch@chem.fsu.edu.

The Florida State University is a Public Records Agency and an Equal Opportunity/Access/Affirmative Action employer, committed to diversity in hiring.

AbbVie's Organic Chemistry Group in Process Research & Development We currently have two openings for associate chemists in AbbVie's Organic Chemistry Group in Process Research & Development. 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 applying through the links [130000043O](#) and/or [130000043X](#). Feel free to pass the message around your department. 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.

Sigma-Aldrich in Milwaukee, Wisconsin is seeking a Product Manager-Materials Science. Manage Alternative Energy and Micro/Nanoelectronics product lines within the Aldrich Materials Science initiative. These product lines comprise a broad range of application-specific materials and tools for synthesis as well as device fabrication, addressing both research and commercial markets. The Alternative Energy product line consists of materials for energy applications including lithium ion batteries, fuel cells, hydrogen storage, lighting, thermoelectrics etc. The Micro/Nanoelectronics product line includes precursors for thin film deposition and synthesis of nanomaterials along with electronic and semiconductor grade materials for electronics and semiconductor markets. The successful candidate will manage the product portfolio, perform market analysis, promote awareness of the product lines, maintain the products and optimize pricing in order to meet revenue objectives for the product lines and for the Materials Science Initiative. Additionally, the candidate is expected to support team efforts as assigned in order to meet department, business unit, and company objectives. **Education:** PhD in Materials Chemistry, Materials Science, Engineering, or Chemistry; or B.S. in Chemistry with M.B.A. and 5 (five) years of product management and business development experience directly related to alternative energy and micro/nanoelectronics product line(s). Postdoctoral experience preferred.

For further job description information and/or to apply please visit the company's website at <http://bit.ly/18NmXue>. Sigma Aldrich is an Equal Opportunity employer

The Department of Chemical Engineering at Stanford University is seeking applicants for a tenure-track faculty position at the junior level (Assistant or untenured Associate Professor). Applicants are expected to have earned a Ph.D. degree in chemical engineering or related disciplines. We will consider applicants knowledgeable in the general area of chemical engineering science. There are several broad areas of interest, including hydrocarbon chemistry, surface reactivity and catalysis, fuel cells, environmental or atmospheric

studies, molecular transport processes and mechanics, soft materials physics and chemistry, computation and simulation, biochemical and biomolecular engineering, and nanomaterials processing. In general, we give higher priority to the overall originality and promise of the candidate's work rather than to the sub-area of specialization. Researchers with interests in the applied life sciences, energy sciences, and environmental sciences are particularly encouraged to apply. The successful candidate will be expected to teach at the graduate and undergraduate level, to develop advanced graduate courses in a research specialty, as well as to develop a world-class research program with an emphasis on the fundamental physical, chemical, or biological aspects of chemical engineering science. Applicants should be seeking a stimulating interdisciplinary environment in which to pursue teaching and research. We anticipate that the faculty members will contribute to and develop leadership roles and interactions among faculty not only in Chemical Engineering, but also Electrical, Mechanical, Civil and Environmental, and Material Science and Engineering in the School of Engineering; in Physics, Chemistry, and Biology in the School of Humanities and Sciences; in the departments and programs in the School of Medicine, as well as Bioengineering located in the Schools of Engineering and Medicine, and at the Stanford Synchrotron Radiation Laboratory.

Applicants must submit online their curriculum vitae (including research accomplishments, teaching experience, and publications) a transcript of doctoral graduate study, a detailed research and teaching plan, and three references (name and email address). Applications are due by December 1, 2013, but we will continue to accept applications until the position is filled. Please apply online at <http://cheme.stanford.edu/>

The Department of Chemistry at the University of North Texas invites applications for a faculty position in Physical Chemistry at the Assistant Professor level. A Ph.D. in chemistry or a related field is required, and post-doctoral experience is preferred. The candidate's research program may be in any area of Physical Chemistry, but preference will be given to candidates whose research complements that of current faculty in the department. For additional information and to apply visit our website at <http://facultyjobs.unt.edu>. Review of applications will begin immediately and continue until the position is filled. UNT is an AA/ADA/EOE institution.

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: **February**; Opens December 1; Closes February 1

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

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

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