

the cell

OCTOBER 2005
 VOLUME 24 NUMBER 8
 NORTHWESTERN UNIVERSITY
 BMBCB

UPCOMING EVENTS

BMBCB Departmental Seminar Series:

12:30 PM, Thursdays
 Pancoe Auditorium
 2205 Campus Drive
 For updates visit: [http://
 biochem.northwestern.edu/news.html](http://biochem.northwestern.edu/news.html)

Thursday, October 20
*Regulation and coordination of molecular
 motors*
 Dr. Vladimir Gelfand
 Northwestern University

Thursday, October 27
*Essential roles for C. elegans glia in
 nervous system form and function*
 Dr. Shai Shaham
 The Rockefeller University

Pathway to the Professoriate Series:

Wednesday, October 19th
 12:00pm Hogan G-160
*Faculty Job Search part 1: Choosing the
 Right Institution and Applying for the
 Position.*



NORTHWESTERN
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CONTENTS

Feature Story	1
Upcoming Events	1
Incoming IBiS Students	2
New People	3
Announcements	3
Submissions	3
Employment Opportunities	4

JASON BRICKNER HITS

GROUND RUNNING

Josh Schnell

BMBCB Assistant Chair

In the recently opened south wing of the 3rd floor of the Pancoe/ENH Pavilion, Jason Brickner, BMBCB's newest faculty member, is busy building his research program. Although he is filling his lab with supplies purchased on start-up funds, Jason is also extremely grateful for having received reagents and equipment from the lab of the late Neil Welker. Jason remarked, "Some of the equipment was over 40 years old, but it was in pristine shape." This pristine equipment has saved him time and money in getting his lab running. He confesses to feeling a burden of responsibility to make sure that the equipment doesn't look its age a few years from now.



New BMBCB Faculty member Jason Brickner

Jason came to BMBCB from UCSF, where he was a Helen Hay Whitney Postdoctoral Scholar in the lab of Peter Walter. Jason's postdoctoral studies focused on the control of genes involved in phospholipid biosynthesis by the Unfolded Protein Response (UPR) in the endoplasmic reticulum (ER) in yeast. Such genes are regulated by a membrane protein in the nuclear envelope. He found that activation of these genes was controlled by the position of the chromatin within the nucleus; these genes relocalize to the nuclear membrane upon activation.

Membrane proteins and questions of subcellular localization are familiar to Jason; while a doctoral student in the laboratory of Robert Fuller in the Department of Biochemistry at the Stanford University School of Medicine, he worked on the mechanism of localization of proteins to the *trans*-Golgi Network. The question of spatial organization in eukaryotic cells is a theme that runs through his research career and will continue here at Northwestern. "I am fascinated by the question of how living cells are spatially organized, how they manage to overcome the entropy demanded by thermodynamics," said Jason.

Jason was attracted to BMBCB by the "strong graduate program, the breadth of the research interests, and the excellent colleagues." As Jason described, they are colleagues "who are

...continued on page 3

MEET THE FIRST YEARS

Jared Schrader

Fort Collins, Colorado

Jared Schrader is rotating this quarter in the Uhlenbeck lab studying ribosome binding kinetics of suppressor tRNAs. He earned his bachelors degree in microbiology from Colorado State University where he did work in theoretical chemistry. His current research interests include chemical biology and molecular biophysics. Jared says he thoroughly enjoys being a Northwestern Wildcat and plans to work in academia, hopefully some day back in Colorado.



Aparna Ramachandran

Delhi, India

Aparna is studying reproductive biology in the Mayo lab this quarter. She did her Master's in Biochemistry at Delhi University in India, working on two projects: phage display based identification of HIV-1 peptides; and DNA delivery through Sendai Virosomes. She is open to having a future in either academia or industry and thinks the IBiS rotations are a very nice opportunity to explore different labs in order to choose a specific interest.



Darja Bamming

Leipzig, Germany

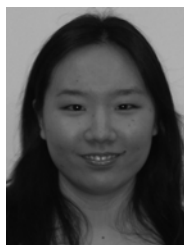
Darja is spending Fall Quarter in the Hicke lab studying protein interaction in the endocytosis pathway. Her degree is in Biochemistry at the University of Leipzig, Germany, where she studied G-protein coupled receptors. Cell signaling is her main interest and she might like to become a professor and teach at university some day. Darja thinks that the size of the IBiS program is perfect because it is big enough to promote successful collaborations between different labs.



M. Alison Kim

Lynchburg, Virginia

Alison is a rotation student in the Woodruff lab this quarter. Her research interests encompass all aspects of metals in biology; she is currently working on a collaborative project with the O'Halloran lab



MEET THE FIRST YEARS

studying the role of zinc in mammalian fertilization.

Alison completed her undergraduate degree in chemistry at Bryn Mawr College in Bryn Mawr, PA. She plans to continue on to a postdoc and remain working in academia.

Sorabh Agarwal

Madison, Wisconsin

Sorabh is studying structural biology in the Jardetzky lab this quarter. He grew up in Madison, Wisconsin, and completed degrees in biochemistry and genetics at UW-Madison. His senior thesis research focused on Toluene-4-monooxygenase and was done in the lab of Dr. Brian Fox. He loves the diversity and activities that Chicago has to offer, especially the food! He enjoys understanding the chemistry and biophysics behind biology. Sorabh is not sure what he wants to do upon graduating, but hopes to figure it out in the next few years.



Daniel Czyz

Chicago, Illinois

Daniel is originally from Poland and moved here when he was 14. He graduated from UIC with a bachelor's degree in biochemistry. For the past three years he has been involved with cancer research at UIC.

Currently, he is rotating in the Morimoto Lab where he investigates the expression of heat shock proteins after exposure to different stresses. He is pretty much interested in everything that is connected to science. Daniel's long-term goals involve teaching and conducting research at an academic institution.



Candace Tinggen

Hillsborough, North Carolina

Candace is doing her first rotation in the Woodruff lab, being thoroughly introduced to the complexities of the ovary. Candace received her undergraduate degrees in biology and women's studies from Duke University. While she worked in biostatistics and toxicology labs at the National Institute of Environmental Health Sciences, her real interest is in studying female reproductive health. She hopes to one day enter academia as a professor to teach both the science and broader social aspect of reproduction in modern culture.



JASON BRICKNER

...continued from page 1

both great people with whom to discuss science and good examples of how to succeed in academic science." The healthy integration of different scientific approaches and perspectives within the department, coupled with a culture of support and collaboration, are important to Jason. He added, "Labs in BMBCB share equipment, reagents and resources, which is especially important to junior faculty; this is one reason why assistant professors in BMBCB do well."

Saccharomyces cerevisiae is his organism, primarily because it is an excellent tool for understanding cellular mechanisms at a molecular level. He plans to combine in vivo cell biological experiments, exploiting the power of yeast molecular genetics, with in vitro approaches using purified components and novel assays. His spouse, Donna, also a scientist, is helping Jason to bring the lab up to speed and will work with him on the in vivo studies. Starting November 1st, a postdoctoral fellow will be joining the group to embark on developing the biochemical assays and approaches that will complement the in vivo tools.

Despite enjoying graduate and postdoctoral mentors who were very "hands-off", Jason plans to take a slightly more "hands-on" approach to training his graduate students to become scientists. He hopes to pair up new students with more experienced members of the lab on projects with momentum and clear goals. This will help them to generate publications early, because as Jason puts it, "the taste of an early publication changes how you do science." He anticipates that good projects will blossom, raising unanticipated, interesting questions and opportunities for more independent, creative projects as students mature.

Confronted with the challenge of starting up his own independent lab, Jason is working hard to keep his momentum by developing the tools and assays that will be essential to the research projects and by spending as much time at the bench as he can. Intellectually, he is both building on the work from his postdoctoral studies and also expanding his investigations into additional "interesting" roles of lipids in biology. Jason considers lipids to be "largely under-appreciated sources of information and control, both spatial and temporal, within the cell."

Jason met many of the department's researchers at this year's IBiS retreat, at which he presented his lab's research findings. As to be expected, BMBCB's most recent faculty recruit is fitting in nicely. "We were tremendously pleased to attract Jason as a colleague to Northwestern and to BMBCB" says chair Kelly Mayo. "His research findings establish a new paradigm in eukaryotic gene regulation, and Jason beautifully complements current expertise in the department. We look forward to following his future success."

Jason can be reached via email at j-brickner@northwestern.edu, or in his office or lab in the South wing of Pancoe/ENH on the 3rd floor.

Office Room # 3-105 Office Phone # 847-467-0210

Lab Room #3-221 Lab Phone #847-467-0201.

GENERAL ANNOUNCEMENTS



MORIMOTO RECEIVES HUNTINGTON AWARD--Richard I. Morimoto has been honored for Excellence in Medicine by the Huntington Disease Society of America. The society supports more than 40 scientists worldwide with annual Coalition for the Cure grants ranging from \$40,000 to \$100,000. (from Northwestern's Oct. 13th Newswire)

NEW PEOPLE



Please extend a warm welcome to these individuals who have recently joined our department:

Sharlene Andrewin is a new Financial Assistant in the Life Science Business Office.


Angela Weaver is a new Administrative Coordinator in the Life Science Business Office.

Zoe Clancy is a new Grant Coordinator in the Bass Lab.

Xianghong Jing is a new Post Doctoral Fellow in the Lamb Lab.

Louise Ludlow is a new Post Doctoral Fellow in the Horvath Lab.

SUBMISSIONS

 **The Cell** is published monthly by the Department of Biochemistry, Molecular Biology and Cell Biology at Northwestern University.

Editor: Chris Rathjen

Please send all comments, questions and submissions to:

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2205 Tech Drive
Evanston, IL 60208-3500
847.491.5068
bmbcb@northwestern.edu

MEET THE FIRST YEARS

Sara Ahmed

Oberlin, Ohio

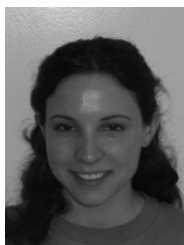
Sara is rotating Fall Quarter in the Matouschek lab and studying proteasome processing of transcription factors. She received a Bachelor's in biology from Oberlin College and spent time working in Dr. Gaber's lab before choosing IBiS for her PhD. She is leaning toward future work in industry, perhaps in the area of drug discovery. Sara is enjoying the IBiS program because of the great number of potential faculty and research concentrations to choose from.



Merideth Burkhart

Mazon, Illinois

Merideth graduated from the University of Illinois at Urbana-Champaign this past spring with a degree in chemistry. She is a rotation student in the Radhakrishnan lab working on the NMR structure of a transcriptional coactivator protein. She remains open to many areas in the biological sciences though structural biology is what currently interests her the most.



Marla Issac

Chicago, Illinois

Marla is a rotation student in the Turek lab this quarter, investigating Sleep and Circadian Rhythm in mice. Her previous experience has been with cancer biology and neuromuscular function. Previous to Northwestern, Marla attended the University of Illinois at Chicago where she graduated with a Bachelor's in general biology. Marla's main biological interest involves human disease conditions. As for her future aspirations, she is keeping an open mind, and has not yet decided between academia and industry.



Saul Arellano

Chicago, Illinois

Saul is rotating in the Takahashi lab focusing on the genetic control of circadian rhythms. He attained his Bachelor's degree in Molecular/Cell/Microbial biology from Chicago State University where he did research on molecular mouse genetics. Saul plans to pursue a career in researching the genetics of human disease.



WELCOME TULANE STUDENTS

Please join us in welcoming our visitors from Tulane University:

Arthur Lustig's Lab:

Karam Aboudehen 1st year graduate student

Binoj Nair 1st year graduate student

Immanuel Joseph senior graduate student

Hungjiun Li senior graduate student

Mrinal Bhattacharya PostDoc

Chuck Miller's Lab

Sunanda Deb Postdoc

Thanks to Rick Gaber for generously providing lab space for these displace researchers until they return to New Orleans.

EMPLOYMENT OPPORTUNITIES



A list of available and desired jobs relevant to the Department of Biochemistry, Molecular Biology and Cell Biology.

Assistant or Associate Professor Department of Chemistry University of Wisconsin-Eau Claire

Tenure-track faculty position in the Department of Chemistry at the rank of Assistant or Associate Professor beginning August 21, 2006. The initial appointment will be for two years. Applicants should have an earned doctorate in biological chemistry, organic chemistry, or closely related field required by November 7, 2005. Salary and rank will be commensurate with experience. Desired area of specialty is biological or bioorganic chemistry. Demonstrated ability or potential for engaging undergraduates in collaborative research projects will be considered an asset. Demonstrated ability to effectively communicate concepts in biological and/or organic chemistry will be considered an asset. The ability to enhance the diversity of the department and serve as a role model and mentor for women and/or minorities will be considered an asset. Applicants will be expected to teach biochemistry and/or organic chemistry lecture and laboratory in the Department of Chemistry, along with some instruction in general chemistry lecture and laboratory. The

successful applicant is expected to develop a program of externally funded research in experimental biological or bioorganic chemistry involving undergraduates, provide academic advising to students as assigned, engage in service, and participate in department, college, and university committee work. Competitive start-up funds are available.

Applicants will send a letter of application, curriculum vitae, statement of research plans (3-5 pages), statement of teaching interests and experience (1-2 pages), and graduate and undergraduate transcripts (unofficial transcripts are acceptable for the initial application, however official copies will be required before the position is offered) to the address below. Applicants will also arrange for three letters of recommendation to be sent to the same address. To ensure consideration, completed applications must be received by November 7, 2005. However, screening may continue until position is filled. An AAJEO employer. Send applications and letters of recommendation to:

Chair, Search Committee
Department of Chemistry
University of Wisconsin
Eau Claire, Wisconsin 54702-4004
Websites: <http://www.uwec.edu/acadaf7jobs/> and <http://www.uwec.edu/Jchemistry/pages/posltlons.ht1-n>.

Anatomy & Physiologist University of Wisconsin-Whitewater

The Department of Biological Sciences at the University of Wisconsin-Whitewater invites applications for a full time academic staff position for spring semester 2006. Start date is Jan 5, 2006. The successful candidate will be expected to teach Anatomy & Physiology and an introductory non-majors biology course with laboratory. The position will require someone who can cooperate with other science faculty in joint laboratory preparation and delivery. M.S., A.B.D. or Ph.D. in biology is required. A record of excellence in teaching both general education and majors' courses is desirable. Salary is competitive and negotiable. A complete application packet consists of a letter of application, curriculum vitae, statement of teaching philosophy, copies of all transcripts, and three letters of recommendation. For consideration applications must be received by October 31, 2005. The University of Wisconsin-Whitewater is an Equal Opportunity and Affirmative Action Employer, and actively seeks and encourages applications from women, members of minority groups, persons with disabilities, and all veterans. Interested persons should apply in writing to:

Dr. Bruce D. Eshelman
Department of Biological Sciences
University of Wisconsin-Whitewater
Whitewater, WI 53190
Telephone No. (262) 472-1092

FAX No. (262) 472-5633
Email Eshelmab@uww.edu
Website: <http://www.uww.edu>.

Vertebrate Biologist Biology Department Drake University

Pending final budgetary approval, full-time tenure-track Assistant Professor in Vertebrate Biology, beginning fall semester 2006. Ph.D. required, with post-doctoral experience desirable. GIS training and ability to curate a vertebrate collection is desirable. Teaching responsibilities include an evolution-oriented capstone course, a vertebrate specialty course, and participation in the general/pre-professional introductory biology course. A commitment to inquiry-based teaching in an interdisciplinary setting is expected, along with externally funded research that can engage undergraduates. For full consideration, all application materials should be received by December 1, 2005. Position will remain open until filled. Drake University is an equal-opportunity employer, and actively seeks applicants who reflect the diversity of the nation. Send CV, e-mail addresses of three references, philosophical statement on teaching and research, publication sample, and transcripts, to:

Dr. Wayne Merkley, Professor of Biology
Drake University
2507 University Avenue
Des Moines, IA 50311.

Assistant Professor Developmental Biologist Bucknell University

Applications are invited for an entry-level, tenure-track Assistant Professor position beginning August 2006 in the Department of Biology at Bucknell University. Ph.D. required. Teaching responsibilities will include an advanced course in animal developmental biology, participation in an introductory level course for biology majors, a non-majors course to support the general education program, and supervision of undergraduate research. Review of applications will begin on November 7, 2005. The search will remain open until the position is filled. Bucknell University encourages applications from women and members of minority groups (EEO/AA). A cover letter, statements of teaching philosophy and research goals, curriculum vitae, and three letters of recommendation should be submitted to:

Mitchell Chemin, Ph.D.
Chair, Biology Department
Bucknell University
Lewisburg, PA 17837
chemin@bucknell.edu
Phone: 570-577-1124

FAX: 570-577-3537

<http://www.bucknell.edu/departments/biology/>

**Tenure Track Faculty Position
Department of Biochemistry and Biophysics
University of Pennsylvania School of Medicine**

The Department of Biochemistry and Biophysics at the University of Pennsylvania School of Medicine seeks candidates for an assistant, associate and/or full professor position in the tenure track. Rank will be commensurate with experience. The successful applicant will have experience in the field of molecular mechanisms in biology with a strong background in membrane biochemistry, chemistry, computation, biochemistry or biophysics. Responsibilities include conducting research and research training. They seek individuals with a strong track record of independent accomplishments, who are able to interact productively with colleagues and supervise and mentor students with diverse backgrounds. Applicants must have a Ph.D. or equivalent degree and have demonstrated excellent qualifications in education and research. The University of Pennsylvania is an equal opportunity, affirmative action employer. Women and minority candidates are strongly encouraged to apply. Please submit curriculum vitae, a brief statement of research interests, and have three reference letters sent to:

Ruth Keris
Staff to Search Committee
Department of Biochemistry & Biophysics
245A Anatomy-Chemistry Building
University of Pennsylvania
School of Medicine
Philadelphia, PA 19104-6059
keris@mail.med.upenn.edu

**Domestic Fisheries Observer
Alaskan Observers, Inc.**

ALASKAN OBSERVERS, INC. is certified by the National Marine Fisheries Service and the Alaska Department of Fish and Game to provide observers for domestic fisheries. Persons hired attend training in either Seattle, WA or Anchorage, AK. In the six months following training, observers make two deployments, each one of which is approximately 2 to 2 1/2 months in length. Observers are guaranteed subsequent deployment opportunities and salary advances. Observers gather management data for the Government, living and working aboard U.S.-flagged commercial fishing vessels operating in the Bering Sea, North Pacific, and Gulf of Alaska. Compensation \$3,900.00-\$6,006.00 per month, depending on experience, plus room, board, and travel to and from job site. Minimum qualification is a Bachelor's Degree in fisheries biology, marine biology, general biology, zoology, or a related natural science. There is no closing date; three-week, paid training courses are held periodically throughout the year. It is the policy of Alaskan Observers, Inc. to select the best individuals available for each job

opening without regard to race, color, age, religion, sex, marital status, national origin, veteran status, or any other reason prohibited by regulations or guidelines relating to discrimination in employment. FOR INFORMATION AND APPLICATION, CONTACT:

David Edick
Alaskan Observers, Inc.
130 Nickerson, Suite 206
Seattle, WA 98109
1-800-483-7310
or 206-283-7310
Fax: 206-283-6519
<http://www.alaskanobservers.com>
e-mail: aoistaff@alaskanobservers.com

**Tenure Track Faculty Position
Biochemistry
Washington and Lee University**

The Department of Chemistry at Washington and Lee University invites applications for a tenure-track Assistant Professor position in biochemistry. While a Ph.D. in biochemistry is preferred, qualified individuals in areas of molecular biology will also be considered. Ability to interface with our Neuroscience program is an asset. The successful candidate will be responsible for a six course load, which includes: teaching the second course in a two-term biochemistry sequence, developing an associated biochemistry laboratory based on nucleic acids, teaching at least one laboratory section per term, creating one advanced course, and contributing to introductory course instruction. An active research program involving undergraduates is expected. Candidates whose research interests involve nucleic acids will be given strongest consideration. Review of applications begins on November 1, 2005. An Equal Opportunity Employer, Washington and Lee University and the Department of Chemistry are interested in candidates who are committed to high standards of scholarship and professional activities, and to the development of a campus climate that supports equality and diversity. Applicants should send a curriculum vitae, graduate and undergraduate transcripts, a brief statement of research plans at an undergraduate liberal arts institution, a statement of teaching philosophy, and three letters of recommendation to:

Dr. Lisa Alty
Department of Chemistry
Washington and Lee University
Lexington VA 24450.

**Assistant Professor,
Molecular Biology
Wittenberg University**

The Biology department of Wittenberg University invites applications to fill an Assistant Professor starting August

2006. Teaching responsibilities include advanced courses in any area of biology studied with a molecular focus, with preferences for developmental biology, genetics, immunology or microbiology. In addition to the upper-level specialty, teaching will include participation in the major's general biology sequence and the opportunity to develop a non-major's course in the area of specialty. All faculty members advise undergraduates and fulfill other departmental and university responsibilities. Candidates should have a commitment to teaching in the liberal arts and sciences context, the ability to involve undergraduates in their research and a Ph.D. or (ABD) in an appropriate field. Additional information about the University is available on their website at www.wittenberg.edu or the department at <http://www4.wittenberg.edu/academics/biol/>. Review of applications will begin October 24, 2005 and will continue until the position is filled. Wittenberg University is an equal opportunity, affirmative action employer. Women and minorities are encouraged to apply as we are committed to creating an ethnically and culturally diverse community. To apply send curriculum vitae, a statement of teaching and research philosophy, completed transcripts, and three letters of recommendation:

Dr. Timothy L. Lewis, Chair
Department of Biology
Wittenberg University
P.O. Box 720
Springfield, Ohio 45501
(tlewis@wittenberg.edu)

**Post Doctoral Fellowship
Temple University School of Medicine
Philadelphia, PA**

Temple University School of Medicine is currently seeking a postdoctoral fellow/Research Associate for studies on the effect of millimeter waves (MWs), a form of microwaves, on the immune system. These waves have been used for the treatment of many diseases in the former Soviet Union for more than 20 years with impressive reported successes. Temple University plans to study the validity of the Soviet claims, and understand the mechanisms involved in the effectiveness of millimeter wave therapy. Previous studies in experimental animals have shown that MW irradiation can protect T cell, macrophage and NK cell functions from the toxicity of chemotherapeutic drugs. It is believed that modulation of the immune system by millimeter waves is mediated through release of endogenous opioids. Dr Mahendra Logani at Temple University now plans to test this hypothesis. The selected candidate will work on a NIH-funded project. Experience in immunological methods such as measurement of cytokines, tissue culture, and flow cytometry etc. is highly desirable. If interested, contact:

Mahendra K. Logani, Ph.D.
Professor of Biomedical Physics
Temple University School of Medicine
3420 North Broad Street
Philadelphia, PA 19140
Phone: (215) 707-3321

Fax: (215) 707-4324
E-mail: mlogani@temple.edu

Anuja Khan is looking for a postdoctoral or any other research position within the BMBCB department or the Medical School. Anuja completed her Ph D in Physical Biochemistry from the University of Nottingham (U.K.) in June '05, and has re-located to a Chicago suburb recently to join her husband. Her research was to characterize the solution structure and interactions of specific electron transfer proteins using a range of hydrodynamic techniques. Her other qualifications are: MSc in Applied Biomolecular Technology (U.K.) (included 3-month industrial placement), BSc (Hons) Zoology (India). Anuja would be very much interested in research position available now or in the near future and would be happy to discuss any such prospect in person. If interested, her contact email is anuja_khan@yahoo.com.



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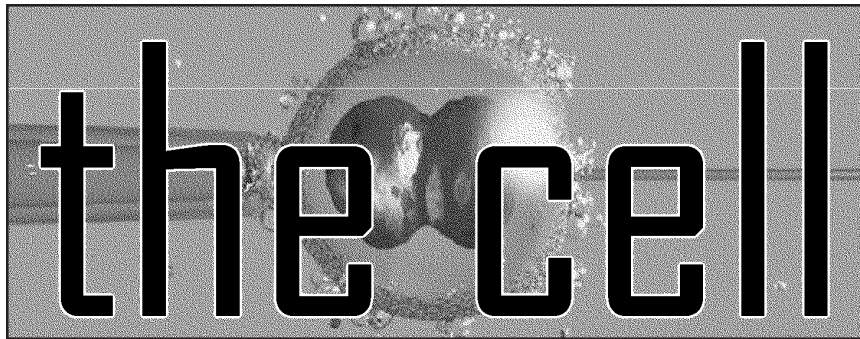
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