

the cell

WINTER 2007
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NORTHWESTERN UNIVERSITY
BMBCB

UPCOMING SEMINARS

Faculty Search Candidates

Dr. Haixin Sui
University of California, Berkeley
"Cryo-electron tomographic study of flagellar microtubule doublets"
Thursday, February 1
Pancoe-ENH Abbott Auditorium

Dr. Jeff Pleiss
University of California, San Francisco
"Regulation of gene expression by pre-mRNA splicing in response to environmental stress"
Tuesday, February 6
Pancoe-ENH Abbott Auditorium

Dr. Needhi Bhalla
University of California, Berkeley
"A Conserved Checkpoint Monitors Meiotic Chromosome Synapsis in *C. elegans*."
Thursday, February 8
Pancoe-ENH Abbott Auditorium

Please visit the BMBCB website for a complete list of upcoming seminars.

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BMBCB READY FOR MAJOR CHANGES IN PROPOSAL SUBMISSION

Kelly Fust
BMBCB Project Coordinator

Does the thought of submitting an NIH proposal make you cringe with thoughts of those last-minute runs to the Fed-Ex drop box? Then NIH's ongoing transition to electronic submission (via Grants.gov) should assuage your worries. The February 5th deadline for R01s marks what will be the largest number of single-day submissions to date, and by the end of 2007, essentially all of NIH's grant mechanisms will be submitted electronically.

While officials at NIH agree with many PIs and research administrators that those first electronic



submissions in late 2005 and early 2006 were a challenging and oftentimes frustrating experience, they are confident that the substantial work done by Grants.gov since that time will make for a much smoother process with R01s and other up-

See "Grants.gov," pg. 4

FORMER BMBCB POSTDOC TAKES CHARGE IN THE OFFICE OF POSTDOCTORAL AFFAIRS

Kelly Fust
BMBCB Project Coordinator

In November of 2005, *The Cell* reported on Northwestern's development of an Office of Postdoctoral Affairs (OPA). What we didn't know then was that one of our own would take on the challenge of running this new office when it opened in the fall of 2006. Dr. Aparna Bhatnagar was a postdoc in Dr. Ted Jardetzky's

lab for close to five years. For two of those years, she took on the additional role of president of BMBCB's postdoc association, a position that allowed her to play a pivotal role in persuading the University to form the OPA.

The more than fifty postdoctoral fellows in BMBCB are part of a community over 600 postdocs conducting research at Northwestern. When asked why this

See "OPA," pg. 3

NEWS AND INFORMATION FROM BMBCB'S RESEARCH CENTERS

By Elizabeth Hill
Program Coordinator, CDB Center

Beginning this quarter, The Center for Cell and Developmental Biology will use this section of *The Cell* to publish the news and accomplishments of its faculty and students. The Center for Cell and Developmental Biology is a collaborative effort, headed by Dr. Richard Carthew, to promote the sharing of research facilities and investigative initiatives between the Department of Biochemistry,



Molecular Biology and Cell Biology and the Department of Neurobiology and Physiology. The center works to organize and publicize the strengths of its faculty and students, as well as to provide administrative support for their endeavors. The student and faculty researchers within the center share two key research interests: exploring the pathways and mechanisms used by single cells

to function and interact with their environments and investigating how cells develop and communicate to form entire organisms. The center holds a monthly lunch meeting with an open agenda to encourage its members to collaborate and share research, while allowing them to conceptualize and enact the center's administrative and research goals. For more information on The Center for Cell and Developmental Biology, contact Elizabeth Hill at Elizabeth-hill@northwestern.edu or Dr. Richard Carthew at r-carthew@northwestern.edu.

Center News item:
The Brickner lab is celebrating the acceptance of its paper entitled "H2A.Z-mediated localization of genes at the nuclear periphery confers epigenetic memory of previous transcriptional state" in the journal *PLoS Biology*. Congratulations!

Center News item:

Full citation: Brickner, D.G., I. Cajigas, Y. Fondufe-Mittendorf, S. Ahmed, P.-C. Lee, J. Widom and J.H. Brickner. "H2A.Z-mediated localization of genes at the nuclear periphery confers epigenetic memory of previous transcriptional state." *PLoS Biology*, in press (2007).

The Center for Structural Biology is composed of a core group of six research laboratories located in Cook Hall. The center also includes a number of additional faculty in BMBCB, the Department of Chemistry, the Structural Biology Center at the Advanced Photon Source of the Argonne National Laboratory and the Molecular Biophysics Program.



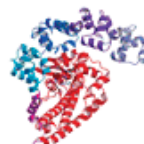
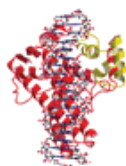
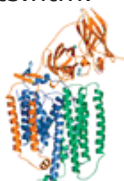
By Annie Topliff
Program Coordinator, CSB

Two major research facilities are directly managed by members of the Center for Structural Biology: the Keck Biophysics Facility and the Structural Biology Facility. Additionally, members of the center have a large involvement in the NMR Facility.

For more information on the Center for Structural Biology, contact Annie Topliff at a-topliff@northwestern.edu or Dr. Alfonso Mondragon at a-mondragon@northwestern.edu.

The Center for Structural Biology (CSB), under the direction of Dr. Alfonso Mondragon, brings together research groups with an interest in structural biology, particularly molecular biophysics and biochemistry. The center houses several research facilities that are crucial in modern biological macromolecules research. Additionally, the center helps to promote and disseminate knowledge in Structural Biology through seminars, clubs, and meetings. For a complete schedule of events, please visit <http://www.biochem.northwestern.edu/biophys-new/events.htm>.

For more information on the Center for Structural Biology, contact Annie Topliff at a-topliff@northwestern.edu or Dr. Alfonso Mondragon at a-mondragon@northwestern.edu.



office was an important addition to Northwestern, Aparna responded, via an email reply, "The presence of an office dedicated to postdoctoral training can significantly improve the quality of postdoctoral training at a university...Postdoctoral fellows...contribute extensively to the research enterprise. They perform the bulk of the research and are often involved in obtaining grant funds, teaching and training students. As a group however, they are often neglected in university settings as they lie in a grey zone somewhere between having been a graduate student and becoming a faculty member. This often results in poor employment conditions, low compensation, long working hours and unclear status."

Aparna jumped right into the work required to solve these unique workplace challenges, and she recounted several recent successes for OPA:

1. Northwestern is now an institutional member of the National Postdoc Association, which includes free affiliate membership to the Northwestern community (postdocs, faculty and grad students).
2. A new web site was created to disseminate information about OPA and university postdoctoral practices; a postdoctoral fellow handbook was created to help in the orientation of fellows (<http://www.tgs.northwestern.edu/postdocaffairs/>).
3. A listserv was launched to facilitate direct communication of news and events to the postdoctoral constituency.
4. Data collection on and evaluation of postdoctoral fellows was started using HR information to enable Northwestern to participate in national surveys and also to better understand the constituency.
5. An advisory council and postdoctoral roundtable committee is in the process of being formed.
6. The postdoc appointment process and requirements were refined in collaboration with Human Resources, the Office of Research and partner schools.
7. OPA began to work closely with postdoctoral associations across campus and to encourage departments and schools to support these groups.

Aparna looks forward to adding to this list and

knows that her time as a postdoc in BMBCB will "aid...immensely" as she works to improve the professional life of this valuable group of researchers. Postdocs and faculty alike are encouraged to check out OPA's website to learn more about the work being done there.

Would you like more information on the BMBCB Postdoc Association?

Contact Louise Ludlow (l-ludlow@northwestern.edu) or Mamta Puri (mamta-puri@northwestern.edu).

In the past, the BMBCB postdoc association has organized panel discussions on career opportunities, and they also regularly sponsor "First Fridays," a social gathering for all of the department's postdocs.

A REMINDER ABOUT EFFORT REPORTING

Faculty members, please take the time to review this summary of the quarterly effort-reporting timeline. As always, your timely certification of these reports is appreciated. Please contact Yvette Davis (1-4216) with any questions.

Effort certification will be due approximately four weeks after reports are generated. Exact deadlines will be communicated each quarter once the reports have been generated.

-Day 0: Effort reports generated (approx. 2-4 weeks after end of quarter), and notification is sent to department administrators with deadlines.

-Week 3: Deadline reminder sent to dept. administrators.

-Week 4: **Effort reports due.**

-Week 5: Effort completion results, including delinquency reports, sent to dept. administrators.

-Week 7: Completion results and delinquency reports sent to department chairs.

-Week 10: Completion results and delinquency reports sent to deans' offices.

-Week 14: Delinquency reports sent to VP of Research and Provost's Office to determine appropriate action.

CONGRATULATIONS TO THE DECEMBER GRADUATES!

- Priya Bellare, Sontheimer lab
- Zain Bengali, Shea lab
- Courtney Berkholtz, Shea lab
- Chi Chen, Papoutsakis lab
- Bob Cook, Woodruff lab
- Neil Jaffe, Matouschek lab
- Xin Li, Carthew lab
- Kwame Mensah, Matouschek lab
- Sarah Paul, Beitel lab
- Barbara Sisson, Holmgren lab
- Elizabeth Truesdell, LaBonne lab
- Liqing Wang, Hatzimanikatis lab
- Janet Wolford, O'Halloran lab
- Suzi Ziegenhorn, Holmgren lab



HELP OUT WITH IBiS RECRUITMENT

The annual IBiS student recruitment efforts are scheduled for the weekends of **Friday, February 2nd, 2007** and **Friday, February 16th, 2007**. The IBiS admissions committee hopes for broad participation by faculty and students again this year.

Faculty and graduate student participation is frequently cited by prospective students as an important factor in enhancing their experience during these recruitment weekends and in influencing their decision to join the IBiS program. Active faculty involvement increases both the quality and number of applicants who accept our offers of admission.

Knowing how busy everyone is with pressing deadlines and other recruitment efforts during this time of the year, the IBiS admission committee appreciates your time and effort commitment towards this important annual endeavor for the IBiS program.

Grants.gov, cont'd.

coming electronic deadlines.

BMBCB will also join the electronic age, by storing all of our proposal packets on our own Depot file system. This system will simplify the signature-gathering process, facilitate PI work with administrators and eliminate the storage of paper copies.

There are still some lingering challenges in the Grants.gov system, one being its continued incompatibility with the Mac operating system. While several temporary solutions are available, PIs working with BMBCB staff can avoid having to use those. The proposal itself will look unfamiliar, with such changes as having to divide the research plan's sections into individual documents and leaving out any headers and footers.

OSR has also had to make some adjustments for Grants.gov. A new review timeline requires that proposals, complete except for the final science portion, be submitted to them *5 business days* before the deadline, and they must receive the finalized research section *2 business days* before the due date. This new timeline applies to all proposals, not just those submitted electronically. Although

many of these changes are minor, they may require a little extra patience for your first electronic submission.

However, all members of the BMBCB staff who help with proposals are able to undertake many of the tasks required of electronic submission and have attended OSR-run training sessions on Grants.gov. The department has also been holding informational meetings for any faculty members submitting on the first couple of major deadlines: February 5th and March 5th. One-on-one meetings can also be arranged for interested faculty members. Please contact Kelly Fust at 1-5068 or K-Fust@northwestern.edu.

SEND US YOUR NEWS AND UPDATES!

If you ever have any information that you would like in *The Cell*, such as updates about organizations or facilities, faculty or student news or notices about upcoming events, please contact Kelly Fust at K-Fust@northwestern.edu or 847.491.5068.

We look forward to hearing from you!

FACULTY RESEARCH

The **Marko lab**, featured in the fall 2006 edition of *The Cell*, has some recently published articles in *Molecular Biology of the Cell*, *Molecular Microbiology* and the *Journal of Molecular Biology*. "Micromanipulation studies of chromatin fibers in *Xenopus* egg extracts reveal ATP-dependent chromatin assembly dynamics" is still in press but available online at <http://www.molbiolcell.org/>.

Other recent publications by the Marko lab:

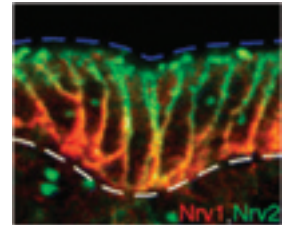
C.D. Adams, B. Schnurr, D. Skoko, J.F. Marko, W.S. Reznikoff, "Tn5 transposase loops DNA in the absence of Tn5 transposon end sequences" *Mol. Micro.* 62, 1558-1568 (2006).

D. Skoko, D. Yoo, H. Bai, B. Schnurr, J. Yan, S. M. McLeod, J. F. Marko, and R. C. Johnson, "Mechanism of chromosome compaction and looping by the *E. coli* nucleoid protein Fis." *J. Mol. Biol.* 364, 777-798 (2006).

When **Dr. Greg Beitel's lab** published "A pump-independent function of the Na,K-ATPase" in *Development* this past December, it was featured in

the "In this Issue" section of the journal. Please see the full citation, along with some other recent publications, below.

Paul S.M., Palladino M.J., Ganetzky B. and Beitel G.J., "A pump-independent function of the Na,K-ATPase," *Development* 134, 147-155 (2007).



Le T., Yu M. H., Williams B., Goel S., Paul S.M. and Beitel G. J., "CaSpeR5, a family of *Drosophila* transgenesis and shuttle vectors with improved multiple cloning sites," *BioTechniques*, in press (2007).

Wu V.M., Yu M., Paik R., Banerjee S, Liang Z., Paul S.M., Bhat M.A. and Beitel G.J., "*Drosophila* Varicose, a member of a new subgroup of basolateral MAGUKs, is required for septate junctions and tracheal morphogenesis," *Development*, in press (2007).

Please see the CDB Center news (p.2) for publication news from the Brickner lab.

BMBCB Welcomes New Department Members!

- Tsuyoshi Asako: Graduate student, Lamb lab
- Thu Banh: Lab technician, Marko lab
- Kajal Choudhary: Postdoctoral fellow, Radhakrishnan lab
- Rebecca Carroll: Research technician, Beitel lab
- Stephen Chapman: Research technician, Uhlenbeck lab
- Arabela Grigorescu: Keck Facility Manager & Research Assistant Professor
- Meng-Hsuan Han: Postdoctoral fellow, Wang lab
- Joao Marques: Postdoctoral fellow, Carthew lab
- Debbie Walker: Program Coordinator, Mayo lab



PUBLICIZE YOUR NIH SUPPORT

If NIH money is helping to fund your research, they hope you are letting people know. In a recent announcement in their newsletter, NIH asked for PIs' help in publicizing the work that is supported by their grants. They report that "making the connection between federal research funding and scientific advances shows the American people that their tax dollars lead to new knowledge and an improvement in health."

They also point to the Congressional directive that grantees acknowledge NIH when publicly discussing or publishing their research. They suggest acknowledging NIH support "in journal articles, oral or poster presentations, news releases, interviews with reporters, [or] radio and TV appearances." NIH may also like to publicize your work in news releases or on their website. In order to do this, the communications director must hear from you or another representative from the lab or university.

To read the NIH's comments on this topic in their entirety, please visit: <http://grants.nih.gov/grants/partners/0107Nexus.htm#NIHsupport>.

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If you think you would enjoy receiving *The Cell* or would like to be removed from the mailing list, please refer to the following:

The Cell

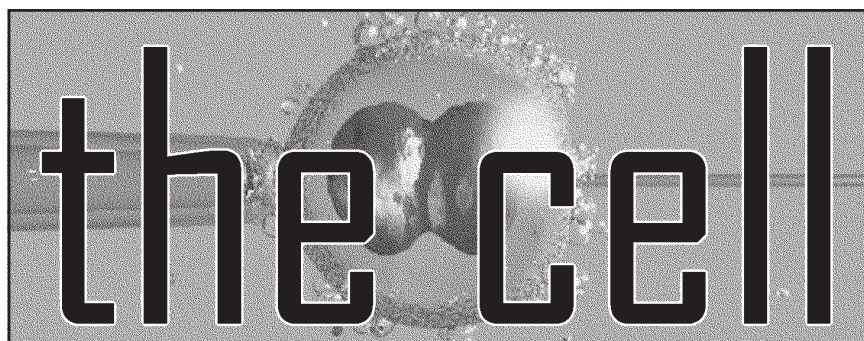
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