

This Week in HST

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Student Life and HST Community Notices:

SUBMIT TO SOMA WEISS DAY

Soma Weiss Day, Harvard Medical School’s annual research showcase, takes place this year on Thursday, April 14. Students are encouraged to submit applications for inclusion: drafts of your summer or year-long research proposals are due on February 22; final proposals are due by electronic submission on March 25. For more information, contact Dr. Robert Lees at rsl@mit.edu.

IMATH: INTERACTIVE MATH MENTORING PROGRAM

Information sessions:
Tuesday, February 8th, 8:00 p.m., Rm. 1-246
Wednesday, February 9th, 8:00 p.m., Rm. 1-246

iMATH is an after-school program pairing MIT student mentors with Cambridge 8th graders. Mentors help their students develop their understanding of mathematical ideas, through interactive internet-based activities, and foster enthusiasm among the students. For as little as two hours per week, one day after school, you have the chance to make a real difference in the life of an 8th grader.

Attend one of the info session, or learn more about how to get involved at: <http://web.mit.edu/mitpsc/programs/imath>.

GRADUATE QUIZ BOWL

Thursdays beginning February 24, 2005
4:30 p.m.
R&D Pub in Stata

Quizbowl is a trivia game with two teams of four people answering questions within various fields of knowledge (science, arts, history, literature, etc.), with some silly features (a charade) and a local touch (an MIT/Boston category). This is the third quizbowl tournament in two years, and the first Institute-wide contest. The number of teams is limited. For more information, email gradquizbowl@mit.edu.

GRADUATE STUDENT TAX WORKSHOPS

Saturdays, February 26, March 12, April 2, and Sunday, April 10, 2005
Sidney-Pacific Graduate Dorm and 37-312
Time TBA

The Graduate Student Council will help students filing returns using 1040 forms (not 1040NR). They will try to answer any questions that students may have regardless of their status. Tax information is available online at the Internal Revenue Service website at <http://www.irs.gov/formspubs/index.html> and the Massachusetts Department of Revenue website: <http://www.dor.state.ma.us>.

PLEASE NOTE: the annual tax information workshop for graduate students who are US citizens and permanent residents will NOT be held this year.*

Course Information:

**HST.572:
WHAT A STUDENT INTERN IN BIOMEDICAL ENGINEERING NEEDS TO KNOW**

Spring Seminar: Wednesdays, 6:00 p.m. – 7:00 p.m.
This class is held in E25-119

This course brings in entrepreneurs, engineers, lawyers, and investors. Topics include: legal issues for students, intellectual property law, evaluating medical technologies, entrepreneurship, intellectual property licensing, and strategic uses of intellectual property. The second half of the course focuses on a single, outstanding medical problem, and brings in doctors, scientists, engineers, venture capitalists and entrepreneurs. For more information, contact James C. Weaver, the course director, at jcw@mit.edu.

HST.590: BIOMEDICAL ENGINEERING SEMINAR SERIES

6 sessions throughout the term
4:00 p.m. – 6:00 p.m., dinner following
MIT 34-101

The theme for this semester is "Practical Biomedical Ethics." Sessions will explore topics including authorship, invention ownership, professional integrity, animal welfare, and responsible biomedical engineering design.

On Thursday, February 17, Dr. Gary Tearney of MGH/Wellman will be the speaker. Upcoming dates and presenters include:

- | | |
|----------|-----------------------------------|
| March 10 | Dean Joseph Martin, HMS |
| April 7 | Dr. Steve Niemi, PHS |
| April 21 | Dr. Paul Citron, GaTech/Medtronic |
| April 28 | Dr. Jonathan Rosen, PHS/CIMIT |

Lectures, Seminars, and Programs:

PATHOLOGY GRAND ROUNDS AND SEMINARS

Monday, February 7, 2005
12:30 – 1:30 p.m.
Pathology Conference Room, Amory Lab Building, 3rd Floor, Room 3-119 at BWH

Elazer R. Edelman, M.D., Ph.D., Cardiovascular Division – BWH, Cabot Professor of Health Sciences and Technology, presents "Tissue engineering: Examples from the cardiovascular system."

LAB FOR INFORMATION AND DECISION SYSTEMS COLLOQUIUM

Tuesday, February 8, 2005
4:00 p.m. – 5: 00 p.m.

MIT 32-124

Peter C. Doerschuk, an HST alumnus who is a professor of Electrical and Computer Engineering and Biomedical Engineering at Purdue University, will present "Challenges in the Computational Structural Biology of Viruses." A short reception will follow on the 6th floor of the Dreyfoos Tower.

EPL SEMINAR SERIES

Friday, February 11, 2005
2:00 p.m.
3rd Floor, Sloane Teaching Room, MEEI 243 Charles St.

For the Graduate Student Work-in-Progress Seminar Series, Joshua Bernstein presents a talk entitled "Fundamental frequency discrimination and frequency selectivity in sensorineural hearing loss."

Career Programs:

RESUME WORKSHOP FOR GRAD STUDENTS: PRESENTING YOUR TECHNICAL BACKGROUND TO AN INDUSTRY OR BUSINESS AUDIENCE

Friday, February 18, 2005
2:00 p.m. – 3:30 p.m.

Participants will learn more about the employer's perspective and receive tips on how to target resumes effectively for different audiences. Bring three copies of your resume for a peer critiquing exercise. Register online at <http://web.mit.edu/career/www/events/workshops.html>.

16TH ANNUAL FORUM USA INTERNATIONAL JOB FAIR

Saturday, April 2 – Monday, April 4, 2005
Registration Deadline: Tuesday, February 15, 2005

Organized by the French Embassy in the US, Forum USA brings together young scientists, engineers and executives studying or working in the United States to meet with international companies looking for new talent. To register and for more information, please visit the Forum USA website at <http://www.forumusa.org>.

Fellowship and job opportunities:

Opportunities for students:

RAs IN ANGIOGENESIS, LYMPHANGIOGENESIS AND OPTICAL IMAGING

Research assistantships available for full time MEMP PhD students interested in working at the interface of bioengineering/biophysics/imaging and cancer. Projects include angiogenesis and lymphangiogenesis in tumors; engineering blood and lymphatic vessels; intra-vital microscopy; molecular and functional imaging; drug delivery to tumors; stem cell biology and applications; and mathematical modeling. Funding is available immediately. For further details, see <http://steele.mgh.harvard.edu>.

To apply, send CV to Rakesh K. Jain, PhD at jain@steele.mgh.harvard.edu.

MIT INDUSTRIAL PERFORMANCE CENTER DOCTORAL FELLOWSHIPS

Fellowships are available for students pursuing research toward a Ph.D. or Sc.D. degree in fields related to the mission of the Industrial Performance Center. Candidates should have demonstrated exceptional ability in their chosen field, completed their doctoral qualifying examination, and have a well-developed thesis research proposal. Proposals should not exceed 2500 words, and should be accompanied by a current resume. For more information and to see previous Fellowship proposal abstracts, go to the IPC homepage at <http://web.mit.edu/ipc> and look under "Educational Opportunities." The deadline is Tuesday, March 1, 2005 at noon.

RA POSITION AT MARTINOS CENTER

The Martinos Center is seeking a full time research technician with strong computing skills to assist with the work of acquiring and analyzing fMRI data and electrophysiological data. Requirements include a B.A., B.Sc. or M.Sc. degree in Psychology, Computer Science, Biomedical Engineering, or a closely related field; programming skills in C, MATLAB, and UNIX would be a plus. A two-year time commitment is requested.

To apply, send a CV with description of research and/or computing experience, a statement of goals and interests and names and contact details of three references by email or fax to:

Gina Kuperberg, M.D., Ph.D.
kuperberg_research_position@nmr.mgh.harvard.edu

INTEL FELLOWSHIP

Intel seeks nominations for its 2005 Fellowship. Nominees must be US citizens or permanent residents (with the exception of students working in the fields of Semiconductor Process Technology, VLSI Circuit and related fields), and must have completed a Master's degree and one year of a PhD program in selected technology areas. The two-year fellowship includes:

- tuition, fees, and \$20,000 stipend
- a mentor at Intel
- the option of an Intel internship
- an Intel microprocessor-based PC
- an invitation to participate in the 2005 PhD Fellowship Forum in Portland, Oregon

AMERICAN SOCIETY OF NEPHROLOGY STUDENT SCHOLAR GRANT

The ASN offers medical students with an interest in either basic or clinical research to spend from one to three consecutive summer or semester sessions engaged in full-time research with a mentor who is an ASN member. The grants provide a summer stipend of \$5,000 or semester stipend of \$7,500; \$1,000 for the PI's lab for expenses; and \$1,500 for the student to attend the ASN meeting each year following the summer program.

Applicants must be currently enrolled in a US medical school and in good standing. The application deadline is February 11, 2005. For further information on the grant and the application process, contact Benjamin Schuster, ASN staff member, at bschuster@asn-online.org.

DRAPER FELLOWSHIP

Draper Laboratory is seeking a graduate student for a Draper Fellowship in the Bioengineering Group at Draper. The application and program summary is available at <http://www.draper.com/education/fellowship/fellowship.php>. Please contact Dr. Heather Clark at hclark@draper.com with any questions.

This opportunity is available immediately, and Draper is very interested in hearing from HST students interested in the position.

BIOMEDICAL OPTICS RA IN SPEC LAB

Research will involve state-of-the art optics/microscopy experiments on biological samples, computer data acquisition, and analysis. Research is being conducted under the direction of Professor Michael Feld. The day-to-day interactions will be with Dr. Gabriel Popescu, a post-doc in the Lab. If interested, send resume to Dr. Popescu at gpopescu@mit.edu.

RA AT BIDMC

Doctoral students or graduates with a degree in Mechanical Engineering, Materials Science and Engineering, Biomedical Engineering or related field sought to join collaborative research into the mechanisms of lubrication in the pleural, pericardial and peritoneal spaces. Techniques include biomechanical and optical measurements of the tribological and mechanical properties of tissues, histological study, solid mechanics and fluid dynamics, and finite element analysis. To apply, contact Stephen Loring, sloring@bidmc.harvard.edu.

RAs IN COMPUTATIONAL BIOPHYSICS AND MOLECULAR MEDICINE

Research assistantships available for students interested in computational biophysics and molecular medicine. Projects range from molecular simulations of conformational changes in proteins to detailed biochemical studies to extend and validate structural models. Candidates should have a background in experimental biology/biochemistry. Familiarity with UNIX preferred, but not required; no formal training in biophysics is requisite, only an enthusiasm for learning. Funding is available for the 2004-05 academic year.

To apply, send CV to Collin M. Stultz MD, PhD at cmstultz@mit.edu. Professor Stultz is a new HST Assistant Professor with a dual appointment with EECS.

BIOMEDICAL IMAGING POSITION AT MARTINOS CENTER

Research Assistant with strong computing skills to assist with the cognitive multimodal imaging project at Martinos Center for Biomedical Imaging. Learn to collect and analyze data obtained by MRI and MEG/EEG methods; other responsibilities could include stimulus generation/programming, subject recruitment, and protocol preparation.

Undergraduate degree in Biomedical Engineering, Computer Science, Psychology or related fields required; programming experience and good verbal and written communication skills are highly desirable. Position could be ideal for recent graduates bound for graduate school or medical school; a two-year commitment is requested.

To apply, send a cover letter describing research interests and experience, CV, and the names of three references to xenia@nmr.mgh.harvard.edu.

RA POSITIONS IN SYSTEMS BIOLOGY

Two positions available in the Mootha Laboratory in the Department of Systems Biology at HMS and the Broad Institute. The Mootha lab explores mitochondrial function in health and in disease using biochemical physiology, genomics, proteomics, computation, and clinical medicine.

B.A. or B.S. in biology, biochemistry, chemistry, or related field required; prior wet-lab experience in basic molecular biology and biochemistry (PCR, cloning, Western blots) is a plus. These positions are ideal for seniors interested in a research experience that serves as a bridge to graduate school.

To apply, send cover letter and CV to Vamsi Mootha at vmootha@broad.mit.edu.

OPPORTUNITIES IN A PATHOLOGY RESEARCH LAB

Dr. Leo Cheng's pathology research lab analyzes tissues from human brain tumor, prostate cancer and breast cancer with NMR spectroscopy to develop methods for evaluations and diagnoses. The lab also investigates the relationship between tumor metabolism and tumor biology using laser capture micro-dissection. To learn more about the research and opportunities to join the lab, contact:

Leo L. Cheng, PhD
Assistant Professor of Radiology and Pathology, HMS
Pathology Research, CNY-7
MGH Charlestown
cheng@nmr.mgh.harvard.edu.

Professional opportunities:

POSTDOC POSITION IN FUNCTIONAL GENOMICS, BULYK LAB

Postdoctoral position available for individual with experience in molecular biology and protein biochemistry, and strong interest in genomic and proteomic technology development. Strong quantitative skills and prior bioinformatics experience are a plus. Solid command of spoken and written English is required, as are strong written and oral communication skills in general.

To apply, send a cover letter describing your research interests, CV, and 3 letters of reference to:

Prof. Martha L. Bulyk
Harvard Medical School New Research Building, Room 466D
77 Avenue Louis Pasteur
Boston, MA 02115
mlbulyk@receptor.med.harvard.edu

POSTDOC AT CHILDREN'S HOSPITAL

Position immediately available on project focusing on a new transgenic mouse model for hydrocephalus resulting from overexpression of a well-described growth factor. Techniques will include PCR, animal perfusion, tissue collection, western blots, immunohistochemistry, histology, and animal surgical techniques. Other projects in the lab include radiological and clinical studies of pulsatile flow dynamics in the brain, drawing on both human and animal data. This funded position will be of particular interest to applicants seeking a career in academic neurosurgery or neurology. Interested applicants should contact Dr. Joseph Madsen, Department of Neurosurgery, Children's Hospital (HST 1980), at Joseph.Madsen@childrens.harvard.edu.

CIMIT REQUEST FOR APPLICATIONS

CIMIT (The Center for Integration of Medicine and Innovative Technology) announces a Request for Applications for its FY 06 funding cycle. Up to \$3 million will be awarded to researchers working on early-stage inter-disciplinary and inter-institutional research projects to develop novel device and systems solutions to unmet healthcare needs. Titles of previous projects are available at www.cimit.org/awatodate.html.

The deadline for submission is March 1, 2005; for more information, including instructions on how to apply, see: <http://www.cimit.org>.

MIT POSTDOCTORAL ASSOCIATE POSITION

Outstanding candidate sought to develop tissue engineering research projects significant to human healthcare and NASA's mission (<http://criticalpath.jsc.nasa.gov/beta/index.jsp>). Research will involve structural, functional and molecular level studies of cell-biomaterial constructs using *in vitro* (bioreactor) and *in vivo* (implant) models. Apply to Lisa Freed, MD, PhD Lfreed@mit.edu of Langer Lab <http://web.mit.edu/landerlab>.

HEARING AID RESEARCH POSITIONS

Oticon is looking for two PhD-level researchers for the Eriksholm Research Centre near Copenhagen. The position focuses on the development of new approaches to alleviating hearing problems. Applicants must have a PhD or equivalent experience and documentation of innovative research in fields related to hearing, acoustics and signal processing; be familiar with Matlab or similar mathematical tools; and have experience with research involving human subjects. For further information and an application, contact Research Director Graham Naylor at gn@oticon.dk

To apply, send application with CV, relevant documents, and references to:

Oticon A/S
Kirsten Schmidt

Strandvejen 58
DK-2900 Hellerup
ksr@oticon.dk