

NESM News

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Spring Symposium in Woods Hole is our 25th!!!

Over 80 registrants will descend on the Marine Biological Laboratory in Woods Hole on Friday, May 2, and it will be the 25th time this ritual has taken place. With help from the Connecticut Microscopy Society, we are looking forward to terrific talks and demonstrations. A dozen of us will be there the day before to take the workshop by Dr. John Mackenzie, Jr. on: Scientific Digital Imaging: Ethics, Work-flow and Hardware. Dr. Mackenzie will also present a talk at the main meeting as part of our Friday afternoon session. See page 2 for the complete schedule.

Our twelve vendors are outdoing themselves; among items we are going to see in action at the meeting are: tabletop SEM, ultramicrotome, spinning disk confocal microscope*! Be there Saturday morning to see who has what fancy gadgets and, of course, cool giveaways. Before the Vendor and Poster sessions on Saturday morning, we will have some tech talks about new instrumentation by speakers from FEI, Bruker-AXS, and JEOL. The tech talks are something we are trying out, with possibility of expansion at future meetings. Our **EXHIBITING VENDORS** are, in alphabetical order:

Andor Technology Bibst Labs Bruker-AXS

EDAX Energy Beam Sciences Electron Microscopy Sciences

FEI JEOL Oxford Instruments RMC

SEMTECH SOLUTIONS SMT-ZEISS

If you haven't booked ahead, here are some local places to try:

■ **Sleepy Hollow Motor Inn, Woods Hole**
508-548-1986 www.shmotel.com

■ **Sands of Time Motor Inn Woods Hole.**
508-548-6300 www.sandsoftime.com

■ **Inn on the Square by Ramada** about 4 miles away, and very fancy
508-457-0606 www.innonthesquare.com/



SWOPE CENTER AT MBL

* Andor Technology spinning disk confocal, demo in Lillie 211, from 12-1 Fri. and 10-11 Sat. Limit 5 at a time: bring a sample! Live is okay! Sign up at reg. desk

Twenty-Fifth Annual Spring Symposium

Marine Biological Laboratories ▪ Woods Hole, Massachusetts ▪ 2-3, 2008

Woods Hole



NESM
MAY 1-3, 2008

Thursday May 1 Pre-meeting Workshop: “Scientific Digital Imaging: Ethics, Work-flow and Hardware,” John Mackenzie, Professor of Biology and Coordinator of the Center for Electron Microscopy, North Carolina State University. 1-6 PM, Candle House.

Friday, May 2

Symposium

12:00 **Registration:** Swope Center

12:00 **Confocal Spinning Disc System Demonstration,** Gary Laevsky, Andor Technology, South Windsor, CT (limit 5 people per demonstration, sign up during registration)

1:10 **Welcome (Meigs Room):** Renee Dickie, NESM President

Afternoon Talks. Moderator: Anlee Krupp, NESM Physical Sciences Director

1:15 “New Techniques in Optical Microscopy,” Kengyeh Chu, Department of Biomedical Engineering, Boston University

2:00 “The 10 Biggest Mistakes People Make with Digital Imaging,” John Mackenzie, Professor of Biology and Coordinator of the Center for Electron Microscopy, North Carolina State University

2:45 Afternoon Break: Coffee and Refreshments Served

3:00 “Recent Advances in SIMs Applications to Earth and Planetary Sciences,” Nobumichi Shimizu, Dir. of the Northeast National Ion Microprobe Facility, Woods Hole Oceanographic Institution

3:40 “Combining FTIR microspectrometry, Cross-Section Microscopy, and ELISA to Analyze Surface Exudate from an Oil Painting” Philip Klausmeyer, Worcester Art Museum, Worcester, MA

4:20 “Engineering Conduction Tissue for the Repair of Complete Heart Block,” Douglas Cowan, Professor of Anesthesia, Children’s Hospital, Harvard Medical School

5:00 “Visualizing the Mechanics of Migration,” Steven Munevar, Beth Israel Deaconess Medical Center, currently with Munevar and Associates

5:45 Cocktails and Dinner

7:15 “The Trials of Building and Equipping a New Nanoscience Laboratory at Harvard or ... Getting by on \$150M,” David Bell & Richard Schalek, Ctr. for Nanoscale Systems, Harvard University

Continued next page

Saturday, May 3

- 7:30 Breakfast Swope Center (included with Registration, whether staying at Swope or not)
- 8:30 Welcome (Meigs Room): Gary Laevsky, NESM Biological Sciences Director
- 8:35 "The Phenom- A New Table-top Microscope with 20,000X Magnification Power," Diane Stewart, FEI Co., Hillsboro, OR
- 9:00 "Silicon Drift Diode (SDD) EDS History and Technological Status," John Mastovich, Bruker AXS, Billerica, MA
- 9:25 "SEM Simplified: New Microscopes that Bridge the Gap Between Optical and Electron Microscopy," Natasha Erdman, JEOL USA, Peabody, MA,
- 9:50 **Vendors Display, Poster Session, Coffee Break 2nd floor, Swope.**
Confocal Spinning Disc System Demonstration: Lillie 211
- 11:30 Presentation of Poster and Photos-as-Art Awards and Door Prizes
- 12:00 Noon: Meeting adjourns (Lunch is not provided)
- Optional Salt Marsh Tour; leaves from Swope at 1 PM; about 1 hour duration, no mud, some shallow wading. Horseshoe crab sightings guaranteed. Easy access to Rte 28.**

Directions to Woods Hole

If you want to get directions from MapQuest, the ZIP Code for Woods Hole is 02543, the address of MBL is 7 MBL Street.

From Boston (81 miles)

Take the SE Expressway (Rte 3) to the Sagamore Bridge (53 miles) The rotary at the Sagamore Bridge is *gone!* The easiest route is to cross the Sagamore Bridge, take the first exit, and get on Rte 6A South.. This will take you to the Rotary that is on the Cape Cod side of the Bourne Bridge. Go 3/4 of the way around the Rotary to the Route 28 exit, and take it straight to Falmouth. (about 14 miles)

From the Mass Pike/495 exit (85 miles)

From the Mass Pike get on 495 South and follow it for about 60 miles where it turns into route 25 South. Follow Rte 25 and it will take you over the Bourne Bridge to Route 28, which is halfway around the rotary at the end of the bridge. It is 14 miles down Rte 28 to Falmouth.

From Providence (80 miles). In Providence get on I-195 East. Rte 195 ends at Rte 25; take the exit for 25 South to

Cape Cod. And right over the Bourne Bridge. As you exit the bridge, go halfway around the Rotary to Rte 28 Take Rte 28 14 miles straight to Falmouth.

WHEN YOU GET TO FALMOUTH (All Routes):

Take Rte 28 for 14 miles, where the freeway will end; Rte 28 enters Falmouth as a 2-way road. Keep straight on this road (Palmer Ave.) through the traffic light. Route 28 turns left there, but you don't. Keep to the right, don't make any turns, and about 1/2 mile farther you will veer right at a fork in the road, go 4 miles (and 1 more traffic light) down Woods Hole Road, which ends in...Woods Hole. Keep right, avoiding the road to the ferry on the left, and go straight down the main street. Turn right onto MBL street across from the waterfront park, and go down one block until you have to turn left. The Swope Center is right there, and three blocks farther down that road is the BAR NECK parking area, where you must park until after business hours

Bus to Woods Hole from Boston.

<http://www.peterpanbus.com/tickets/fares.php> will give you fares and times from South Station to Woods Hole (Steamship dock, 5 mins. from MBL) Service from Providence to Woods Hole as well.

SPECIAL PARKING PERMIT REQUIRED

For the first time this year, you don't need to check in first to get your parking pass; the last page of the newsletter is a pass that you can print out and leave on your dashboard when you park in the Bar Neck Road parking lot (Lot E) These passes will also be available at the front desk in the Swope Center. Bar Neck Road is a continuation of the street that runs past the Swope Center. You have to park there until the end of the work day at 5.

DATES FOR 2009 SPRING SYMPOSIUM: APRIL 30* -MAY 2
(*30TH FOR WORKSHOP)

Niraj Trivedi Steps Down: Biological Director position on NESM Board is open.

Niraj Trivedi, a tireless worker for NESM during his time on the Board, and a consummate snagger of excellent and interesting speakers, is stepping down to tend to new obligations. He and his wife Julie are expecting a baby daughter in July, *and* Niraj is starting at BU in the Ph.D. program for Bioinformatics, also in July. We are going to miss you, Niraj!!! And now, we need a new Biology Director. Suggestions, volunteers, nominations are all welcomed. Chris Santeufemio is our nominating committee chairman for this year: Christopher_Santeufemio@uml.edu.

ELECTRON MICROSCOPIST POSITION

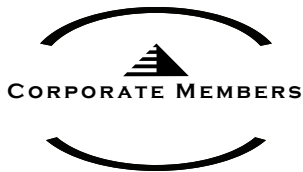
The Center for Materials Science and Engineering at the Massachusetts Institute of Technology has a vacancy for a research specialist in electron microscopy. A description of the vacancy, together with MIT's employment policies, benefits, and other information, with links for on-line application is available at the following URL: <http://sh.webhire.com/servlet/av/jd?ai=631&ji=2188956&sn=I> or applications may be forwarded by electronic or paper mail to Ms. Susan Dalton, CMSE Assistant Director, Room # 13-2106, Massachusetts Institute of Technology, 77 Massachusetts Avenue, Cambridge, MA 02139-4307, e-mail sdalton@mit.edu. The application review process will be open until a qualified candidate has been identified.

Questions about this position may be addressed to Tony Garratt-Reed (tonygr@mit.edu, 617-253-4622)

☞MICROSCOPY AND MICROANALYSIS MEETING IN ALBUQUERQUE ☞

REGISTER NOW for M&M 2008! Be sure to register for M&M 2008 this August! An exciting program is being assembled, including scientific symposia, tutorials, and educational sessions that reflect emerging topics in microscopy and microanalysis, such as biofuels, biofilms and stem cells in the life sciences, to ultrafast microscopy, nuclear materials, and helium ion microscopy in the physical sciences.

It's easy! It's fast! Go to <https://www.hacherohill.com/show/mm2008/a/1> to register for the meeting online (credit card required). If you need to send a check, or prefer to register by fax or mail, simply go to www.microscopy.org/MMMeetings/MM08/HomePage.html and click on "Registration/Forms" to download a PDF registration form. Questions? Email MeetingManager@Microscopy.org or call 703-964-1240 x17



Microscopy Society of America

230 East Ohio Street, Suite 400 ▪ Chicago, IL 60611-3265 ▪ 800-538-3672
FAX: 312-644-8557 ▪ E-mail: BusinessOffice@microscopy.org

Please see MSA website (www.msa.microscopy.com) for further information on the society and for submitting application on-line.

Thank you for your support. Your sustained commitment to NESM allows us to continue to promote excellence in microscopy here in New England. If your company is missing from this list, please contact Tim McClure at mtim@mit.edu for corrections and additions

AMT

Barry Scientific Inc.

Boekeler Instruments Corp.

Denton Vacuum Inc.

E.A. Fischione Instr, Inc.

Eastman Kodak

EDAX Inc.

Electro-Image, Inc.

Emispec Systems, Inc.

EMS/Diatome

Energy Beam Sciences

Ernest F. Fullam Inc.

EXTEC Corp.

FEI Philips Electron Optics

GATAN Inc.

Geller MicroAnalytical Lab

Hitachi Scientific Instruments

HKL Technology

International Instrument Sales

JEOL-USA Inc.

Kimball Physics, Inc.

LADD Research Ind., Inc.

LEICA Microsystems, Inc.

MEDTEC

Micro Star Technologies, Inc

Nanotech Consulting

Optechs, Inc.

Oxford Instruments America

Princeton Gamma-Tech, Inc.

Quality Images

Quantomix

Rontec USA, Inc.

SCANNING/FAMS, Inc.

SSSC

SEMTEch Solutions

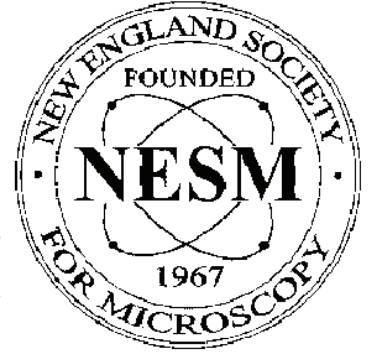
SensIR Technologies

Technotrade International

Thermo Electron

Tousimis

NESM APPLICATION FOR MEMBERSHIP



Date _____

Member Information:

Name _____

Mailing Address _____

City _____ State _____ Zip _____

Phone _____ Fax _____

Email _____ Company/University _____
(If not part of address)

Many of the Society's communications (newsletters, announcements, etc.) are sent electronically. If you also wish to receive a hard copy by US Mail, please check here:

Membership Status:

- Regular Member \$15.00 Student Member \$5.00 Retired Member \$5.00
 Corporate Member* \$100.00 Change of Address Only (Current Members)

*Each Corporate Membership entitles two representatives to membership benefits. Please give name of second person here _____

Phone _____ E-mail _____

Areas of interest (please check all that apply - optional):

- Optical Confocal TEM SEM Specialist techniques _____
 Instrumentation Accessories/supplies Other _____

Please make your check payable to NESM and send along with this application to:

**NESM Treasurer
PO Box 425794
Cambridge, MA 02142-5794**

NESM has a calendar-year membership; new members may join at anytime. Members joining after September 1st. in any year will be credited with the following year's membership. To join, please check one of the member categories, and return the above application along with your check payable to NESM. Dues for renewing members are payable on January 1st. each year and may be sent by check to the Treasurer at the above address or paid at a Society meeting.

The New England Society for Microscopy (NESM), a local affiliate of the Microscopy Society of America (MSA) and the Microbeam Analysis Society (MAS), is a professional organization dedicated to the promotion and advancement of the science and practice of all microscopical imaging, analysis, and diffraction techniques. Each year, the Society holds four local meetings which feature speakers from both biological and physical science backgrounds. Social hours and buffet dinners are enjoyed at each meeting.

PLEASE POST

CALL FOR POSTERS AND

PHOTOMICRO- GRAPHS

**25th Annual
Spring Symposium**

Woods Hole, MA

**Saturday, May
3rd at 11:30 Noon**

*Win for Best Poster, Best
Student Poster, Or Best
Photo-as-Art*

Q. What did the 3 red blood
cells say to the capillary?



Answer: HAVE A
NICE DAY!!!

One of the Symposium's most exciting events is the poster session. In an informal setting, members and students alike have an opportunity to present preliminary results or exhibit data that has been presented nationally to a friendly yet informed audience.

The **Photo-As-Art** session is intended for *the* photomicrograph that you feel has that special aesthetic quality.

- ▶ **Posters** should be submitted with a title and abstract (200 words or less)
- ▶ **Photomicrographs** will be displayed along with the posters and should be submitted with a title or caption and a short technical explanation.
- ▶ **Extended deadline!!! You can submit through May 1!!!**

Please **email** the following: your name, affiliation, email address, status (student, etc.) along with your **Poster Title, Presenting Author, and Abstract** to:

Dan Gibson
dgibson@wpi.edu

***** AWARDS *****

\$100 Best Poster

\$50 Best Student Poster

RECENT AND UPCOMING MEETINGS

Gordon College, Wenham, MA December 13, 2007

This may have been the second worst weather ever for a NESM meeting, the first being a March Blizzard at our meeting in South Dartmouth in 2006. The difference was that in that Blizzard, we were near New Bedford, not a big traffic hub and the roads were empty as we set out for home. In the latest storm, many of us sat on Rte 128 for 3 hours or more! Turnout was understandably light, but we were able to conduct business and elect Richard Schalek (Harvard) as president for 2009, Tim McClure (MIT) as Treasurer, Anlee Krupp (BU) and Yong Zhang (MIT) as Physical Science Director, Gary Laevsky (Andor Technologies) as Biological Science Director, and Dan Gibson (WPI) as secretary.

We had terrific talks on growing nanotubes (Stephen Steiner, MIT), Fluorescent tracking of recombining genes (Dr. Yalaiang Zhao, Gordon College), Multispectral imaging of Fluorescent markers (James Mansfield, CRI Maestro), and the dynamics of tumor suppression (Dr. Alexander Loewer, Harvard Medical School). In James Mansfield's talk, we saw images of fluorescing tumors in intact mice! It was sort of like whole-animal confocal.

The Gordon Meal Service staff arranged to move dinner up because of the impending storm, and we decided to postpone the after-dinner talk until the Spring Symposium. Nevertheless, we didn't get on the road in time to beat the snow or the traffic. This was our first meeting at Gordon College since Russ Camp retired. He has helped organize winter meetings at Gordon for several years. He remains a great NESM booster and has enlisted Dr. Ming Zheng at Gordon to be our liaison there for future meetings. Happy retirement, Russ!

Oxford Instruments, Concord, MA February 28, 2008.

Our 32 attendees were treated to a great meeting venue, a great buffet, tours of the facility. And three great talks after dinner. Many thanks to Nancy Crouch who organized the meeting at Oxford, Dr. Neil Rowlands for his hospitality and kind words about the society.

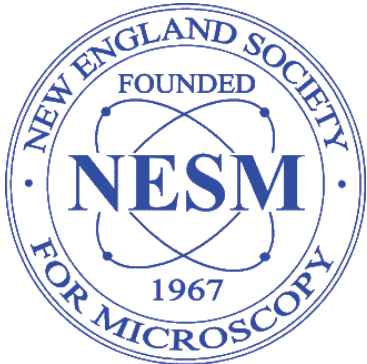
Our speakers told us about some techniques that were mind-boggling. William Glover of ZS Genetics is actually sequencing DNA using Transmission EM: Dr. Phillip Russell of Appalachian State and NC State explained several ways to use SEM in materials and device analysis, and Dr. Susan Westmoreland of Harvard Medical School got into the minds of monkeys (well, brains, anyway) to show us how to mark neurons and synapses in primates. It was a BEAUTIFUL clear day and we had no weather problems getting to and from Concord!

COMING UP!!!

Fall Meeting: October 21st, Enders Auditorium, Childrens Hospital.

Dates for 2009 Spring Symposium in Woods Hole:

April 30 (reserved for workshop) May 1 and 2 (main meeting)



Parking Pass for NESM,
 May 1-3, 2008.
 Bar Neck Road Lot E.
 Leave on dashboard.
 Black and white printout OK



Map by Anne Hanson, WHOI GIS Services