NESM News

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Join Us! 24th Annual Woods Hole Symposium—May 3rd-5th

Spring is finally here, which means that it's almost time for NESM's esteemed Woods Hole meeting! This year we will be meeting the first week of May: **Friday, May 4th and Saturday, May 5th**. NESM is again pleased to welcome its co-host, the Connecticut Microscopy Society (CMS), whose support and participation is greatly appreciated. NESM and CMS will present a highly anticipated **workshop on Thursday, May 3rd: High-Resolution Imaging** run by Dr. Douglas A. Blom from Oak Ridge National Laboratory and on Saturday there will be an evening celebration of NESM's 40th year. The Woods Hole meeting continues to be a favorite among society members, corporate sponsors, students and guests alike. This meeting is an exciting forum, which is devoted to microscopy and its associated techniques, welcoming scientists from both the materials science and biological arenas.

Students, especially, are encouraged to participate! The weekend affords both a scientific and social meeting ground that allows for one-on-one communication with professionals in a wide variety of scientific and engineering endeavors, as well as a Poster Session where research interests of both students and professionals can be presented and shared. Prizes are offered in various categories, so please consider submitting your work!

Highlights of the meeting include:

- □ Scientific Presentations
- □ Commercial Exhibits
- □ Scientific Poster Awards
- □ Photo-As-Art Contest
- □ Cocktails & Banquet
- □ Guest Speakers
- □ Door Prizes

Bonuses: **Saturday, May 5th, 1:00pm**—Dan Gibson will lead his infamous salt marsh tour. If lucky, we will see horseshoe crabs spawning!

******REGISTRATION******

Advance registration is a must! Rooms are reserved on a first-come/first-serve basis: **Dinner and room reservations must by made by April 20th**. Payment must accompany all registrations. Please use the registration form inside this newsletter.

■ Accommodations

Swope Center at MBL

$52.50/person/day, double occupancy
$92.50/day, single occupancy
Rates include Saturday breakfast ONLY
To reserve a room at Swope, please use the registration form provided in this newsletter.
New at MBL:
WIRELESS ACCESS IN ALL ROOMS!!

If you wish to stay at other area motels, (see partial listing below), please call the establishment to reserve your room and pay directly. Make mention that you will be attending the NESM Symposium at MBL.

Other area motels/inns:

■Nautilus Motor Inn, Woods Hole
508-548-1525

■Sleepy Hollow Motor Inn, Woods Hole
508-548-1986

■Inn on the Square by Ramada
508-457-0606

■Woods Hole Passage B&B
508-540-2500

■Sands of Time Motor Inn
508-548-6300

■Student Discount

Full-time graduate and undergraduate students, accompanied by faculty advisor, will be able to pre-register for the meeting, enjoy dinner, and receive Friday night accommodations (**double occupancy only**) at Swope Center for $50.00 (for members of NESM) and $55.00 (which includes a one-year membership).

Twenty-Fourth Annual Spring Symposium

Marine Biological Laboratories ▪ Woods Hole, Massachusetts ▪ May 3rd-5th, 2007

Thursday, May 3rd

1:00 pm High Resolution Imaging Workshop, **Douglas Blom, Ph.D., Oak Ridge National Laboratory**

Friday, May 4th

12:00 pm **Registration:** Swope Center

1:00 pm **Welcome (Meigs Room):** Chris Santeufemio, NESM President

Session I - Moderator: William Fowle, NESM Biological Sciences Director 2007

1:00 pm **Jeffrey Ruberti, Ph.D., Northeastern Univ:** Extracellular Matrix Engineering Research Lab

1:45 pm **Jeremiah Faith, Boston Univ**: Defining a prokaryotic life: systems biology approaches to the complete demarcation of a prokaryotic genome sequence and its regulation.

2:15 pm Afternoon Break
Coffee and refreshments will be served

2:45 pm **Silvija Gradecak, Ph.D., MIT**: Nanowire Semiconductor Heterostructures

3:30 pm **Julia Fulghum**, **Ph.D., Univ. of New Mexico:** Multivariate Statistics

5:30 pm **Cocktails and Dinner: Swope Center**

7:30 pm **NESM Presidential Social**

Saturday, May 5th

8:00 am Breakfast: Swope Center

8:30 am **Welcome (Meigs Room):** Renee Dickie, NESM President-elect

Session II - Moderator: Karen Dalecki Boisvert, NESM Biological Sciences Director 2008

8:30 am **Douglas A. Blom, Ph.D., Oak Ridge National Laboratory**: TBA

9:15 am **Bill Ortyn, Amnis**: ImageStream: Multi-spectral Imaging Flow Cytometry

10:00 am **Vendors Display and Poster Judging**

12:00 pm **Presentation of Poster and Photos-As-Art Awards and Door Prizes**—Dan Gibson
Poster Area, Swope Center

PLEASE NOTE: Lunch at the Swope Center is *optional* this year.

1:15 pm Dan Gibson will lead a salt marsh tour. Maybe we will see horseshoe crabs mating!

☼☼☼☼Directions to Woods Hole☼☼☼☼

From Boston (81 miles)
Take the SE Expressway (Rte 3) to the Sagamore Bridge Rotary (53 mi). Do not go over the Sagamore Bridge. Take the first rotary exit towards the Bourne Bridge along the Bourne Scenic Hwy (Rte 6W). At the Bourne Rotary, follow the signs for, and go over, the Bourne Bridge. At the base of the bridge, go around the rotary to the Rte 28 exit and continue on Rte 28. After 14 miles, Rte 28 becomes a 2-way road. Continue straight through the intersection after 1 mile. After 1/2 mi., the road forks at a stop sign. Turn right towards Woods Hole. Continue for 4 mi. (through one intersection) to Woods Hole.

From New York (252 miles)
Take Rte 95 (US1) North through CT to Providence, RI. In Providence, exit to Rte 195. Follow 195 through New Bedford to its end, and exit right onto Rte 25 towards Cape Cod. Follow Rte 25 to the Bourne Bridge and continue over the Bourne Bridge. At the base of the bridge, go around the rotary to the Rte 28 exit and continue on Rte 28. (Pick up same directions as before from Boston).

Bus to Woods Hole:
The easiest mode of transportation to Woods Hole is via Bonanza Bus from the Boston Greyhound Terminal. The bus drops you a few minutes walk from the MBL as shown in the lower center of the map. For more information, visit their web page at: http://www.bonanzabus.com.

SPECIAL PARKING PERMIT REQUIRED

If you drive to the meeting, please be sure to register at the Swope Center as soon as possible to receive a ***special parking permit***. The permit should then be placed on the dashboard of your car. The MBL enforces the Parking-by-Permit-Only policy in its lots on a year round basis. Once you have the permit, **you are to park in the Bar Neck Road Lot #E only during business hours**. If you are staying overnight, you can move your car to one of the lots behind the Swope Center, entering from Millfield St. **THERE IS A HIGH PROBABILITY THAT YOUR CAR WILL BE TOWED WITHOUT THE PERMIT**.

Judging Criteria For Posters

The Point Scale ranges from 1-5 for each Judging Category. If the presenter does not wish to be included in the competition, indicate "d".

Microscope Adjustment: Do the photomicrographs or images illustrate that the microscope was properly adjusted? Is the specimen in focus? For SEM images, did the sample charge up? Was the proper accelerating voltage used? For light microscopes, is there a uniform field of illumination? For AFM, DIC, Confocal, or other techniques, are the images free of distortions or artifacts?

Quality of Images: Is the subject properly in the field of view? Are the images relatively free of lines or dust specks? Was the film or digital image correctly printed? Is there a scale?

Clarity of Graphics: Are the graphics well-drawn? Are the axes of any graphs labeled? Is color or black & white used effectively? Do the graphics stand alone, or must one refer to the text?

Clarity of Text: Does the text tell the story clearly and concisely? Is any necessary jargon clearly explained? Are complete sentences used?

Layout of Poster: Is the poster easy to follow? Are arrows or numbers used to guide the reader from one part of the poster to the other? Is the title and subject of the poster obvious?

Interaction with Judges: Is the presenter enthusiastic and personable? Is the presenter professionally attired and groomed? Does the presenter answer simple questions in a clear, concise and knowledgeable manner? (Suggestions: What microscopes did you use for this work? When and how were they calibrated?)

Meetings, Conferences, &Courses 2007

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May 3-5, 2007
NESM/CMS 24th Annual Woods Hole Meeting
Woods Hole, MA
Contact: Elke Pravda
(617)919-2436
elke_pravda@ childrens.harvard.edu

May 20-24, 2007
NSTI Nanotech 2007
Santa Clara Convention Center
Santa Clara, CA
Contact: Event Coord.
wenning@nsti.org
http://www.nsti.org/Nanotech2007

June 3, 2007
Lehigh Microscopy School begins annual short courses
Lehigh University
Bethlehem, PA
Contact: Sharon Coe
slc6@lehigh.edu
www.lehigh.edu/microscopy

August 6-9, 2007
2007 Microscopy & Microanalysis
Broward County Convention Center
Ft. Lauderdale, FL
Contact: Phillip Ridley
pridley@bostrom.com

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Advance Registration Form

Registration after April 20th will **not** include dinner!

Registration Deadline
April 20, 2007

To register, please fill out this form below and send it with your check, **payable to NESM**, to:

Elke Pravda
Karp Family Research Laboratories, #11215.1
Children's Hospital Boston
300 Longwood Ave.
Boston, MA 02115

Note: **If you are a NESM member**, please check here ❑ if you are including your annual dues with this reservation.

IMPORTANT: If you have questions, or if it is close to the deadline and you want to reserve a place before your payment is mailed, please call Elke at (617) 919-2436 or email elke.pravda@childrens.harvard.edu

First Name_____Last Name_____❒Dr. ❒Ms. ❒Mr.

Company_____Title_____

Address_____

City_____State_____Zip_____

Phone_____Fax_____E-mail_____

Name of Guest

Name of Faculty Advisor *(for student discount only)*
(A list of attendees will be published)

Advance Registration including Dinner on 5/4/07

❑ NESM Member	$50.00	
❑ Non-member	$65.00*	
❑ Student/retired member	$50.00	
❑ Student/retired non-member	$55.00*	
❑ Guest Registration	$50.00	

Dinner (choose 1) ❑Fish ❑Chicken ❑Vegetarian

Please note: Dinner reservations **cannot** be accepted after April 20th.

Accommodations

*(For additional housing options, see **Accommodations** on front page of this newsletter)*

Swope Center at MBL (1st come, 1st served)

❑ Double Occupancy $52.50/person**
❑ Single Occupancy $92.50/person**
❑ Student Housing *included with Registration (double occupancy only)*

Please reserve (#) room(s) for the following nights: ❑Thurs ❑Fri ❑Sat ❑Handicapped-access

*Non-member and Student Non-member Registration includes 1-year NESM membership.

Mark Your Calendars!

Future Dates for Woods Hole Symposium

2008 5/1-5/3

2009 4/30-5/2

***Note: These dates include a reservation for Thursday also in case we run more workshops**

CELEBRATE!!! It's NESM's 40th Anniversary!!!

FROM CHRISTOPHER SANTEUFEMIO, NESM PRESIDENT 2007:

The New England Society for Microscopy was founded in 1967. This year, 2007, marks the 40th anniversary of our society.

All Past–Presidents of the NESM Council are requested to attend the Annual Spring Meeting at Woods Hole on May 4, 2007.

Part of the Symposium is a reunion of the past NESM Presidents, and a celebration for the NESM 40th Anniversary.

The 'after-dinner' session, from 7:30-8:30 Friday evening, will be an event in which we have some of the Past Presidents to participate. We would like to introduce each Past President in sequence with their term.

We will hear a brief statement from the Past Presidents related to each person's accomplishments and associations with NESM. The theme is "The State of the Art of Microscopy When I was NESM President". We will hear about what was 'cutting edge' in microscopy when they were the President of NESM.

Please plan to attend the Annual Spring Meeting at Woods Hole and participate in the NESM 40th Anniversary Presidential Reunion and Social Event.

Hope to see you all at Woods Hole!

To our corporate members: Thank you for your support. Your sustained commitment to NESM allows us to continue to promote excellence in microscopy here in New England.

CORPORATE MEMBERS

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Barry Scientific Inc.
Boekeler Instruments Corp.
Denton Vacuum Inc.
E.A. Fischione Instr, Inc.
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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
Invitrogen
JEOL-USA Inc.
Kimball Physics, Inc.
LADD Research Ind., Inc.
LEICA Microsystems, Inc.
MEDTEC
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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.*

NESM Application for Membership

New Members:

- ☐ Regular Member $15.00
- ☐ Student Member $5.00
- ☐ Retired Member $5.00
- ☐ Corporate Member* $100.00

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

NESM
c/o Elke Pravda
Karp Laboratories, #11215.1
Children's Hospital Boston
300 Longwood Ave.
Boston, MA 02115

Current Members:

☐ Change of Address Only

*Each Corporate Membership entitles two representatives to receive our newsletter. Please duplicate mailing information form as needed.

Mailing Information:

Date_____ ☐ Dr. ☐ Ms. ☐ Mr.

Name_____

Mailing Address_____

_____

City_____ State_____ Zip_____

Phone_____ Fax_____

Email_____

Company/University_____
(if not part of mailing address)

Major Interest: ☐ Biological Sciences ☐ Physical Sciences

Microscope Type: ☐ SEM ☐ TEM ☐ Light ☐ Confocal ☐ STEM ☐ Other

NESM Membership News 2007

The New England Society for Microscopy (NESM), a local affiliate of the Microscopy Society of America (MSA), 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, NESM holds four local meetings which feature speakers from both biological and physical science backgrounds. Social hours and buffet dinners are enjoyed at each meeting.

New Members: NESM has a calendar-year membership; new members may join at anytime. To join, please check one of the member categories, and return the above application along with your check payable to NESM.

Membership Renewal: Dues are payable at meeting registration, or by check no later than May 31st.

Please make check payable to NESM. Send to Elke Pravda, Karp Family Research Laboratories #11215.1, Children's Hospital Boston, 300 Longwood Ave., Boston, MA 02115.

NESM Officers 2007

President
2007
Chris Santeufemio
Millipore Corp. (781) 533-2812
chris_santeufemio@millipore.com

President-elect
2007
Renee Dickie
HSPH (617) 432-0123
rdickie@hsph.harvard.edu

Past President
2007
Daniel G. Gibson
WPI (508) 831-5543
dgibson@wpi.edu

Treasurer
2007
Richard Schalek
DEAS, Harvard Univ. (617) 496-9682
rschalek@deas.harvard.edu

Clerk
2008
Steve Stokowski
Stone Prod. Cons. (508) 881-6364
spcpetro@aol.com

Corresponding Secretary
2007
Elke Pravda
Children's Hosp. Bost. (617) 919-2436
elke.pravda@childrens.harvard.edu

Materials Science Directors

2007 Donna Guarrera-JEOL (USA), Inc.
(978) 536-2224; guarrera@jeol.com

2008 Tony Garratt-Reed
MIT (617) 253-4622
tonygr@mit.edu

Biological Sciences Directors

2007 William Fowle-Northeastern University
(617) 373-3075; w.fowle@neu.edu

2008 Karen Dalecki Boisvert-Harvard University
(508) 624-8013; karen_boisvert@hms.harvard.edu

2009 Niraj Trivedi-Children's Hosp. Bost.
(617) 919-2198; niraj.trivedi@childrens.harvard.edu

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Mailing Address: NESM, P.O. Box 425794, Cambridge,MA 02142

NESM Web site: http://nesm.cims.harvard.edu

PLEASE POST

CALL FOR POSTERS AND PHOTOMICROGRAPHS

24th Annual Spring Symposium

Woods Hole, MA

Saturday, May 5th at 12:00 Noon

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

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.

➢**Absolute Deadline** for receipt of Posters and Photos-As-Art is **April 23, 2007.**

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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

<u>AWARDS</u>

$100 Best Poster
$50 Best Student Poster
$50 Best Photo-As-Art
2nd and 3rd Place
Honorable Mentions

<u>**Note:**</u> **Please see page 3 of this newsletter for Judging Criteria**

High-Resolution Imaging Workshop

The New England Society for Microscopy is pleased to announce that it will sponsor a workshop on "Imaging with High Resolution in the Transmission Electron Microscope" on Thursday May 3rd, 2007. The workshop will be held at the Marine Biological Laboratory at Woods Hole, MA, and will be followed on Friday and Saturday, May 4th and 5th by the annual NESM Spring Symposium.

Who should attend:

- Microscopists who are dissatisfied with their present micrographs
- Students needing to learn skills for their research
- Practical microscopists desiring to learn some theoretical background to the subject
- etc., etc.

The workshop will be presented by Dr. Douglas A. Blom, Staff Scientist in the Advanced Materials Characterization Laboratory at Oak Ridge National Laboratory. Dr. Blom is a member of the team operating the JEOL 2200FS aberration corrected (S)TEM, including remote access capability. This facility will be used remotely to illustrate the presentation.

More Information

Check the NESM Web site at **http://nesm.cims.harvard.edu**

HIGH RESOLUTION IMAGING WORKSHOP

REGISTRATION INFORMATION

Date: Thursday May 3rd, 2007—1pm until late (will break for dinner)!

Location: Candle House, Marine Biological Laboratory, Woods Hole, Massachusetts (Full directions will be made available).

Cost: Registration: $100 or $75 for students.

Accommodation (bed and breakfast, if required): $92.50 single, $52.50 double. (Note: dinner is not included for Thursday night).

To reserve your place: Space in the workshop is limited, so advance reservation is essential! Send your name, along with contact information, to Elke Pravda at Karp Family Research Laboratories #11215.1, Children's Hospital Boston, 300 Longwood Ave., Boston, MA 02115, telephone her at 617-919-2436, or e-mail at elke.pravda@childrens.harvard.edu. Indicate whether you would like to reserve a room for Thursday night. If requesting double occupancy, indicate the name of the person with whom you will be sharing, or the gender if you wish a roommate to be assigned. If a non-member, please also indicate which of the sponsoring societies you would like to join. IMPORTANT: to retain your space, it is necessary for payment in full to be received by Friday April 20th, 2007 (Note: non-members registering both for the Workshop and the following symposium will register at the symposium for the members' rate.).

Cancellations: If it is necessary for you to cancel your reservation, a full refund of all money paid will be made provided cancellation is received on or before Friday April 20th. Cancellations received after April 20th, but on or before Wednesday April 25th, will result in refund of half the money paid, unless another person is available to take the vacant place, in which case a full refund will be made. Refunds will not be made for "no shows".

Report from Our Last Meeting at JEOL, Inc

Thank you to all who attended the meeting of the New England Society for Microscopy, at the JEOL facility in Peabody, MA! The major purposes of these meetings are educational enrichment and for professional networking.

The meeting had two technical presentations, along with a NESM Executive Board Meeting and dinner.

Special thanks to NESM Director Donna Guarrera and NESM Past President '89 David Harling and all the JEOL staff for hosting the meeting. The JEOL facility is always a great place to visit, with the staff available to showcase their technology in a very relaxed atmosphere. The JEOL facility has interesting archives as well as state-of-the-art equipment. NESM deeply appreciates the support of our corporate members like JEOL.

The first presentation was from Cameron Ackerley of the Hospital for Sick Children, University of Toronto. Cameron is well known in the microscopy field for innovation and high quality work. This presentation was particularly interesting because many labs could potentially utilize some of the techniques shown. The presentation was titled "Acquiring Low Dose Backscatter Electron Images in a Field Emission Scanning Electron Microscope (FESEM) from Beam Sensitive Biological Samples". This information showed the ability to observe sensitive biological samples in the SEM using low accelerating voltages with an Electron Backscatter Detector.

The second technical presentation was about imaging results of observing magnetic materials in the SEM. This talk was titled "Microstructure and Magnetic Properties of Sm(Co, Cu, Fe, Zr) 2:17 Permanent Magnets", by MIT staff Yong Zhang, a research specialist at the Center for Materials Science and Engineering, MIT. This talk was highly specialized and directed towards material science researchers. Imaging magnetic materials in the SEM has always been very difficult, due to 'beam-sample' interactions.

Thank you and see you all at Woods Hole for the NESM 40th Anniversary!

-Christopher Santeufemio, NESM President

Check out JEOL's website for their online report of this meeting:
http://www.jeolusa.com/NEWSEVENTS/PressReleases/tabid/314/newsid735/48/JEOL-USA-Hosts-New-England-Society-for-Microscopy-Spring-Meeting

Project MICRO Update:

Project MICRO will be shown at the Cambridge Science Festival on April 21, 2007 (http://cambridgesciencefestival.org)! Rick Rogers is looking for assistance with this festival. **Drop-ins are welcome if you can devote even an hour** between 10am-5pm on the 21st, email Rick Rogers at rogers@bioimage.harvard.edu or Elke Pravda!!!

Project MICRO continues to excite and educate youngsters at their Festivals. Please consider running such a Festival in your town—contact your local schools and teachers. Most teachers are thrilled at having their students participate!

If interested, please contact Mary McCann (mccanns@tiac.net).

A Look Ahead...

Our next meeting will be held at **SMITH COLLEGE** in Northampton, MA on October 11th!

This will be an afternoon meeting, with registration starting at 1pm, and talks and dinner following!

Please Post

24th Annual Spring Symposium

hosted by

The New England Society for Microscopy (NESM)
And
The Connecticut Microscopy Society (CMS)

May 4th & 5th at
The Marine Biological Laboratory
Woods Hole, MA

A Regional meeting devoted to microscopy and related techniques. It brings together investigators and students from a wide variety of disciplines ranging from biology to materials science.

Highlights

Invited Presentations ✶. Commercial Exhibits
Banquet & Cocktail Get-Together ✶ Inexpensive Accomodations
Poster and Photomicrograph Awards Contest

For more information, call Elke Pravda (NESM) at 617-919-2436 or e-mail: elke.pravda@childrens.harvard.edu

Go to NESM's website! http://nesm.cims.harvard.edu