



NESM News

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It's Spring! – Time for the 19th Annual Woods Hole Symposium!

Spring has arrived and with it comes the **Annual Woods Hole Symposium on May 10-11th!** This **Symposium** is in its **19th year** and still proves to be the favorite among society members, corporate sponsors, students and guests. NESM is again pleased to welcome the support and participation of the Connecticut Microscopy Society (CMS), the Metropolitan Microscopy Society (MMS), and the New York Society of Experimental Microscopy (NYSEM).

This meeting, which is devoted to microscopy and its associated techniques, welcomes scientists from both the materials science and biological arenas. This forum allows for students, corporate members and fellow professionals to share ideas and renew old friendships.

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.

This year, NESM is excited to sponsor a full-day **Digital Imaging Short Course on Thursday, May 9th** at Woods Hole (*see details and separate registration inside*). We hope you will consider coming early to Woods Hole and participate in this professional development short course!

Highlights of the meeting include:

- ? Scientific Presentations
- ? Commercial Exhibits
- ? Scientific Poster Awards
- ? Photo-As-Art Contest
- ? Cocktails & Banquet
- ? Guest Speakers
- ? Door Prizes
- ? Commemorative Tote Bags

REGISTRATION

Advance registration is a must! Rooms are reserved on a first-come/first-serve basis: **Dinner reservations must be made by May 3rd.** Payment must accompany all registrations. Please use the registration form inside this newsletter.

! Accomodations

Swope Center at MBL

\$40/person, double occupancy

\$70/day, single occupancy

Rates include Saturday breakfast ONLY

To reserve a room at Swope, please use the registration form provided in this newsletter.

A limited number of rooms have been set aside for Symposium registrants at the establishments listed below. To reserve your room, please call and pay directly. Be sure to mention that you will be attending the NESM Symposium at MBL.

Other area motels/inns

! Nautilus Motel, Woods Hole

800-654-2333

\$87 + tax/night, reserve by May 1st

! Sleepy Hollow Motor Inn, Woods Hole

508-548-1986

! Inn on the Square by Ramada

800-676-0000

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! 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 \$40.

Nineteenth Annual Spring Symposium

Marine Biological Laboratories ? Woods Hole, Massachusetts ? May 10 & 11, 2002

Friday, May 10th

12:00 pm

Registration: Swope Center

1:00 pm

Welcome: Lillie Auditorium—Lynne Garone, NESM President

Session I Biological Sciences

1:10 pm

The Lyme Disease Spirochete

Hallie M. Krider, University of Connecticut

1:50 pm

Actin-Based Vesicle Transport in Nerve Cell Extracts: Implications for Neurodegenerative Diseases

George M. Langford, Dartmouth College

2:30 pm

Exploring Living Cells with a New Polarized Light Microscope

Rudolf Oldenbourg, MBL, Woods Hole

3:10 pm

Afternoon Break

Coffee served in Lillie 103

Session II Materials Sciences

3:30 pm

Scanning Magnetic Microscopy

Gang Xiao, Brown University

4:10 pm

Morphological Self-Assembly and Nanoparticle Formation in PEO-PAMAM Linear Dendritic Diblock Copolymers

Mark A. Johnson, MIT

5:30 pm

Cocktails and Dinner: Swope Center

7:30 pm

After Dinner Talk: Meigs Room, Swope Center

Making Good Science Look Good

Felice Frankel, MIT

Saturday, May 11th

7:00 am

Breakfast: Swope Center

8:30 am

Blind Deconvolution for 3-D Microscopy

David Biggs, Autoquant Imaging Inc.

9:15 am

Digital Image Acquisition by CCD Cameras

James F. Mancuso, Advance Microscopy Techniques Corporation

10:00 am

Commercial Exhibits and Posters: Swope Center

Coffee and doughnuts will be served

12:00 pm

Presentation of Poster and Photos-As-Art Awards and Door Prizes

Poster Area, Swope Center

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

CALL FOR POSTERS

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 registration is **April 29, 2002**.

? **Registration**— Email (preferred method) or mail your registration information including a stamped, self-addressed envelope (see form inside) **along with your abstract** to:

Ken Orndorff
H.C. Englert Cell Analysis Laboratory
Dartmouth Med. School
Borwell 383 W
Lebanon, NH 03756

AWARDS

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

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 6E). 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 has begun to enforce 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.

Corporate Exhibitors

All Corporate Members of NESM are invited to join our Commercial Exhibition on Saturday, May 11th at the Woods Hole Symposium. If you are interested in exhibiting, and didn't receive an application, contact Mary McCann at 617-484-7865 or by email: mccanns@tiac.net. Reserve your table today!

Commemorative Totes

The Society will again be offering canvas tote bags this year. They will be blue with white lettering and screen-printed with the NESM logo and "Spring Symposium 2002". Send in your order on the Advance Registration Form as there will be only a limited number for sale at the meeting. The cost is \$13.00/bag.

PRACTICAL DIGITAL IMAGING FOR MICROCOPY

Thursday, May 9th—Woods Hole, MA
 Full Day (1pm-9pm)

Meetings, Conferences, & Courses 2002

May 9, 2002

Professional Development Short Course: Practical Digital Imaging for Microscopy
 Woods Hole, MA
 Contact: Paul Bain at 617-432-3236
paul_bain@hms.harvard.edu

May 10-11, 2002

NESM's 19th Annual-Woods Hole Meeting
 Woods Hole, MA
 Contact: Paul Bain (617) 432-3236
paul_bain@hms.harvard.edu

June 21-29, 2002

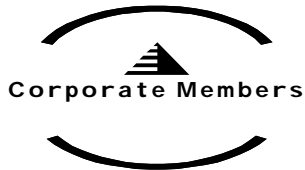
International Cryo EM Course
 University of British Columbia-Vancouver, Canada
<http://www.emlab.ubc.ca>
 (follow cryo-em links)

June 24-27, 2002 17th Annual Short Course on Molecular Microspectroscopy

Miami University Oxford, OH
 513-529-2874
www.muohio.edu/mml

August 4-8, 2002 Microscopy & Microanalysis 2002

Quebec City, Canada
 Contact: www.msa.microscopy.com



Lexington Laboratory of Raytheon Corp. Hosts March Meeting

On Tuesday March 12th 2002 about 45 members and guests gathered at the Lexington Laboratory of the Raytheon Corporation for the March meeting of the Society.

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

After an excellent buffet supper and stimulating conversation, John Thornton, of Digital Instruments/Veeco Metrology Group gave a fascinating talk covering the various forms of scanned probe microscopies, including scanning tunneling microscopy, atomic force microscopy, and several derivatives or variations on the theme, showing examples of applications to a surprisingly wide variety of samples. From the questions and discussion it was clear that the audience was very interested and could see many other applications of the techniques.

He was followed by Eric Hudson, of the Department of Physics at MIT, who talked about applications of ultra-high resolution scanning tunneling microscopy to the physics of high temperature superconductors, discussing in particular charge-density waves, and showing illustrations of visualization of the waves in the STM.

The Society is very grateful to the speakers, to Raytheon Corporation and (NESM Council member) N. Carl Miller for welcoming us to their fine facility, and to Oxford Instruments Microanalysis group for their contribution towards the cost of the buffet supper.

- Able Software Corp
- AMT
- Barry Scientific
- BEEM
- Delaware Diamond Knives
- Denton Vacuum
- EDAX
- Electro-Image
- EMS/Diatome
- Energy Beam Sciences
- FEI Company
- Fischione Instruments
- Ernest F. Fullam
- Gatan, Inc.
- Geller MicroAnalytical
- Hitachi
- JEOL-USA, Inc.
- Kimball Physics
- Eastman Kodak
- Ladd Research
- LEICA
- Leo Electron Microscopy
- Linear Research Associates
- MEDTEC
- Micro Star Technologies
- NanoTech Consulting
- Oxford Instruments
- Resolution Science Corp.
- Rontec
- Scanning/FAMS
- SSSC
- Technotrade International
- Travelers Engineering Labs
- Zeiss

MSA Application for Membership

Mail directly to MSA!

Microscopy Society of America

435 North Michigan Avenue, Suite 1717 Chicago, IL 60611-4067 ☎800-538-3672
FAX: 312-644-8577 ✉E-mail: Business Office@MSA.Microscopy.Com

Name (print) _____ ☎Dr. ☎Ms. ☎Mr.

Mailing address _____

Phone (days) _____ Fax _____ E-mail _____

Institutional Affiliation: _____ Major Interest: ☎Physical Sciences
☎Biological Sciences

Signature of nominating MSA member: _____

Signature of Advisor (for student applicants): _____

Signature of Applicant: _____ Date: _____

Enclose a check (US funds drawn on a US bank) for one year's dues, payable to MSA, or complete the credit card information below. Also enclose a brief statement of your qualifications, experience, and/or student status.

☎Regular Member: \$40 ☎Student Member: \$10 ☎Sustaining Member: \$350

Expires: _____
Visa/Master Card Number (include all numbers) _____ Month/Year

For applicants outside of North America, please add \$18 to each membership to cover the cost of mailing.

NESM NEWS:

Update on Project MICRO

In March, we held a 3-day Project Micro Festival at the Harvard School of Public Health for 5th grade students attending three Boston Elementary Schools. Over 40 kids participated and enjoyed the opportunity to learn about their world through the process of observation. A survey was circulated to the students and teachers several days later and it is clear the students learned a great deal and appreciated the effort of Marshall Katler, Rachel Pescatore and Ann Backus, staff members who organized the festival. NESM members, Renee Dickie, Eileen Dunne and Jean Lai, worked with the students, provided support and guidance. We appreciate their contribution to another successful implementation of Project Micro in the Boston area. - Rick Rogers.

Message from the President-Elect

If any member works at a facility where it might be possible to host a meeting of the Society, the council would be very happy to hear of it. A typical evening meeting (March and October) starts at about 6.00 p.m. with a buffet supper, and concludes around 9.00 p.m. The fall symposium (generally the week after Thanksgiving or the week after that) has an afternoon scientific session, (1.00-5.00), a business meeting (5.00-6.00), a dinner, and an after-dinner speaker, finishing around 8:30-9:00. The hosts sometimes provide the meal (for the evening meetings) and sometimes do not. It helps if caterers are available on-site for the December meeting.

If the work at the facility is of a nature that permits visits (and of course is of interest to the members) then we would also welcome the option of a tour, but this is very much an "added extra".

If you would be interested in hosting a society meeting at your facility, please contact a member of the Board. Thank you! - Tony Garratt-Reed

Microscopy Today has a new owner and editor. Don Grimes started Microscopy Today and has run the operation for ten years and made many friends in the microscopy community. He has finally decided to retire.

MSA now owns Microscopy Today and I have accepted the position of Editor. I have been an MSA member for over 35 years and have been both a user of microscopy equipment and a vendor. It has been my privilege to serve the society in various officer roles, culminating as MSA President in 2001. I resigned my year on MSA Council as Past President prior to the finalization of the negotiations.

I plan to keep Microscopy Today pretty much the way it has been in recent years--with perhaps a greater emphasis on all types of microscopy--not just electron microscopy. The entire MSA membership will receive Microscopy Today-- but MSA membership will not be a requirement for receiving Microscopy Today. No subscribers will be dropped and we will continue to welcome anyone with an interest in microscopy. MT will be published six times per year, in odd months, interleaving with MSA's journal Microscopy and Microanalysis, which publishes in even months and goes to MSA members and its subscribers.

New Microscopy Today contact information: Address: P.O. Box 499, Wappingers Falls, NY 12590
Courier: 21 Westview Drive, Poughkeepsie, NY 12603 Phone: 845 463-4124 FAX: 845 463-4125
E-mail: microtoday@attglobal.net

Ron Anderson

Advance Registration Form

Registration after May 3rd will **not** include dinner

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

Paul Bain
Countway Library of Medicine
10 Shattuck Street
Boston, MA 02115

If you have questions, please call Paul at (617) 432-3236.

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 5/10/02

- | | | | |
|---|----------|--------------------------|-------------------------------------|
| <input type="checkbox"/> NESM Member | \$45.00 | Dinner (choose 1) | <input type="checkbox"/> Fish |
| <input type="checkbox"/> Non-member | \$60.00* | | <input type="checkbox"/> Beef |
| <input type="checkbox"/> Student/retired member | \$45.00 | | <input type="checkbox"/> Vegetarian |
| <input type="checkbox"/> Student/retired non-member | \$50.00* | | |
| <input type="checkbox"/> Guest Registration | \$45.00 | | |

Please note: Dinner reservations **cannot** be accepted after May 3rd.

Accommodations

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

Double Occupancy \$40.00/person**

Single Occupancy \$70.00/person**

Student Housing *included with Registration (double occupancy only)*

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

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

Tote Bags _____ # of bags @ \$13.00 each

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

The fee for rooms at Swope includes Saturday breakfast **only.

CALL FOR POSTERS AND PHOTOMICROGRAPHS

To be presented at the Spring Symposium, Saturday, May 11th, 2002 at 12:00 NOON

Name _____ Student

Entry Title _____

Address _____ City _____ State _____ Zip _____

Phone _____ Fax _____ *E-mail _____

Poster: Include title and abstract (200 words or less)

Photomicrograph: Include title or caption and short technical explanation

Absolute Deadline for Receipt of Entries: April 29, 2002

Please email application/abstract **only**; we will confirm contest entry by return mail. Posters and photomicrographs must be hand-carried to Symposium.

Send/email this form, your abstract, and a self-addressed, stamped envelope to confirm entry to:

Ken Orndorff
H.C. Englert Cell Analysis Lab
Dartmouth Medical School - Borwell 383 W
Lebanon, NH 03756
(603) 650-7661 Email: keno@dartmouth.edu

Enter and Win Money\$\$! Awards include:

BEST POSTER BEST STUDENT POSTER BEST PHOTO-AS-ART

Registration Deadline

May 3, 2002

Note: All 2001 members of NESM were invoiced for 2002 dues in March. NESM dues must be paid prior to reserving. Please check here if you are including your dues with this reservation.

REGISTRATIONS WILL BE PROCESSED ONLY AFTER PAYMENT IS RECEIVED.



MEMBERS DESK

2002 MICROSCOPY TECHNICIAN SUMMER POSITION AVAILABLE

The Marine Biological Laboratory has a summer position available for 10 to 15 weeks (June, July, and August) for a microscopy oriented technician. We would like to attract someone with some knowledge of biological preparative techniques and experience in any of the following: laser scanning confocal microscopy, TEM, SEM, and/or LM.

The technician will assist in the Central Microscopy Facility. The technician's duties will be to check out incoming investigators in the usage of our equipment and then to supervise its continuing usage and to perform contract work for investigators. This may include fixation, embedding, sectioning, scope use, darkroom work, etc. The technician will also provide routine maintenance.

This is a short term and scientifically rewarding position. Salary will be in the \$8 to \$10/hour range. Housing may be available to rent through MBL.

For more information, including a more detailed position description, please contact Louis Kerr at: MBL, 7 MBL Street, Woods Hole, MA 02543. Telephone, 508-289-7273; or at Email: lkerr@mbledu.

Please apply to: Human Resources, MBL, 7 MBL Street, Woods Hole, MA 02543. or resume@mbledu.

You can visit our web site for online employment information and general information regarding the Marine Biological Laboratory - <http://www.mbledu/>

An Equal Opportunity/Affirmative Action Employer/ Non-smoking workplace.

SUMMER INTERN/COOP POSITION AVAILABLE

Boston Scientific Corporation

Desired skills: Hands-on AFM experience, general microscopy and characterization of polymers and metals. Other tasks this person will likely carry out include: Mechanical testing of biomaterials and medical devices using Instron and related equipment. Simple prototyping of medical devices.

Timings and duration of internship is flexible. Feel free to circulate to anyone who might be interested.

For details please respond directly to :

Shrirang V. Ranade
Sr. Scientist - Polymers
Corporate R&D
Boston Scientific Corporation
One Boston Scientific Place
Natick, MA 01760

Tel: (508) 652-5143
Fax: (508) 647-2405
shrirang.ranade@bsci.com

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 Paul Bain
Countway 212
10 Shattuck Street
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 2002

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: An invoice for annual membership dues will be sent with the first newsletter each year. Dues are payable at meeting registration, or by check no later than May 31st.

Please make check payable to NESM. Send to Paul Bain, Countway 212, 10 Shattuck Street, Boston, MA 02115

NESM Officers 2002

President 2002	Lynne Garone E Ink Corp. (617) 499-6000 Lgarone@ink.com	Materials Science Directors 2002	Hei-Ruey (Harry) Jen-M/ACOM Division (978) 442-4804; jenh@tycoelectronics.com
President-elect 2003	Anthony J. Garratt-Reed MIT (617) 253-4622 tonygr@MIT.EDU	2003	Trisha Rice-FEI Company (978) 538-6711; trice@feico.com
Past President 2001	Rick Rogers HSPH (617) 432-3472 rogers@bioimage.harvard.edu	2004	N. Carl Miller-Raytheon (781) 860-3334; Norman_C_Miller@raytheon.com
Treasurer 2002	Paul Bain Countway Library (617) 432-3236 paul_bain@hms.harvard.edu	Biological Sciences Directors 2002	Ken Orndorff-Dartmouth Medical School (603) 650-7661; keno@dartmouth.edu
Recording Secretary 2002	Mary McCann McCann Imaging (617) 484-7865 mccanns@tiac.net	2003	Ezequiel R. Rivera-UMASS Lowell (978) 934-2868; ezequiel_rivera@uml.edu
Corresponding Secretary 2002	Peggy Sherwood MGH-Wellman Labs of Photomedicine (617) 724-4839; MESnesm@aol.com	2004	Thomas Pitta-Micro Video Instruments, Inc. (508) 580-0080; thomasp@mvi-inc.com

		Mailing Address: NESM, P.O. Box 425232, Cambridge, MA 02142	

Please Post

19th Annual Spring Symposium

hosted by

The New England Society for Microscopy (NESM)

May 10th & 11th 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 ~~and~~ Commercial Exhibits
Banquet & Cocktail Get-Together ~~and~~ Inexpensive Accommodations
Poster and Photomicrograph Awards Contest

For more information, call Paul Bain (NESM) at 617-432-3236 or
e-mail: paul_bain@hms.harvard.edu