



# NESM News

Published by the New England Society for Microscopy • April 2005

## Join Us! 22nd Annual Woods Hole Symposium-April 29th-30th

After an extremely harsh New England winter, Spring has arrived and that means NESM's Annual Symposium! The meeting will once again be the last weekend in April: **Friday, April 29th and Saturday, April 30th**. NESM is again pleased to welcome it's co-host, the Connecticut Microscopy Society (CMS), whose support and participation is greatly appreciated. NESM and CMS will present a **half-day workshop on Thursday, April 28th: Presentation Skills and Details for Microscopists** run by Paul Matsudaira from the Whitehead Institute-MIT in Cambridge, MA. (Please see details inside). The Woods Hole meeting continues to be a favorite among society members, corporate sponsors, students and guests alike. This meeting, which is devoted to microscopy and its associated techniques, welcomes scientists from both the materials science and biological arenas. It's an exciting forum with speakers from around the country who are experts in their respective fields.

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

**Bonus: Saturday, April 30th, 1:15pm**—Dan Gibson will lead a 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 reservations**  
 \* **must be made by April 22nd**. Payment must accom-  
 \* pany all registrations. Please use the registration form  
 \* inside this newsletter.  
 \*\*\*\*\*

### ■ Accomodations

#### Swope Center at MBL

\$46.50/person/day, double occupancy

\$81.50/day, single occupancy

*Rates include Saturday breakfast ONLY*

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

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 Motel, 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 acomodations (**double occupancy only**) at Swope Center for \$50.00 (for members of NESM) and \$55.00 (which includes a one-year membership).

# Twenty-Second Annual Spring Symposium

Marine Biological Laboratories ▪ Woods Hole, Massachusetts ▪ April 29-30th, 2005

## Friday, April 29th

12:00 pm

**Registration:** Swope Center

1:00 pm

**Welcome:** Lillie Auditorium—Dan Gibson, NESM President-elect

### *Session I - Physical Sciences, Moderator: Jim Mancuso*

1:10 pm

**A View of Concrete from the Outside In**

Mauro J. Scali, Staff Consultant/Petrography, Simpson, Gumpertz and Heger, Woburn, MA

1:50 pm

**Petrography of Maya Plasters: Construction and Culture in the Peten Department, Guatemala**

Ellen Spensley, Archeology Department, Boston University, Boston, MA

2:30 pm

**Application of Large Area X-ray Mapping for Textural Analysis of Geological Samples**

Dr. Neel Chatterjee, Dept. of Earth, Atmospheric and Planetary Sciences, MIT, Cambridge, MA

3:10 pm

Afternoon Break

*Coffee served in Lillie 103*

### *Session II - Biological Sciences, Moderator: Russ Camp*

3:30 pm

**Multi-Modal Analysis of Cell Proliferation, Mitochondrial Distribution, and Protein Expression in Live Mouse Embryos Using the Keck 3D Fusion Microscope**

Dr. Gary Laevsky, Keck Facility Manager, CenSSIS, Northeastern University, Boston, MA

4:10 pm

**In Search of.....Microbial Diversity at Life's Extremes**

Dr. Linda Zettler, The Josephine Bay Paul Center for Comparative Molecular Biology and Evolution, Marine Biological Laboratory, Woods Hole, MA

5:30 pm

**Cocktails and Dinner: Swope Center**

7:30 pm

After Dinner Talk Meigs Room, Swope Center

**Building Giants: Unlocking the Mysteries of Dinosaurian Growth Patterns**

Dr. Greg Erickson, Florida State University

## Saturday, April 30th

7:00 am

Breakfast: Swope Center

8:20 am

Welcome: Lillie Auditorium— Dan Gibson, NESM President-elect

### *Session III - Biological Sciences-Medicine, Moderator: Lawrence Altman*

8:30 am

**EM of Fully Wet Samples**

Dr. Daphna R. Yaniv, Quantomix, Inc., Phoenix, AZ

9:00 am

**Cryo-electron Crystallography of the Human CTR1 Copper Transporter**

Dr. Stephen Aller, Department of Molecular Biophysics and Biochemistry, Yale University School of Medicine, New Haven, CT

9:30 am

**Shining Light on Translation: the Ying > and Yang of Transported mRNAs in Neural Cells**

Dr. Elisa Barbarese, Dept. of Neurosciences, UCONN Health Center, Farmington, CT

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**—Dan Gibson

Poster Area, Swope Center

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

## ☼☼☼☼ 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 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. **THERE IS A HIGH PROBABILITY THAT YOUR CAR WILL BE TOWED WITHOUT THE PERMIT.**

### Judging Criteria For Posters

*The posters are not judged on their scientific merit!*

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 2005

\*\*\*\*\*

April 29-30, 2005

**NESM/CMS 22nd Annual-  
Woods Hole Meeting**

Woods Hole, MA

Contact: Paul Bain

(617)432-3236

[paul\\_bain@hms.harvard.edu](mailto:paul_bain@hms.harvard.edu)

June 6-9, 2005

**Scanning Probe Microscopy  
Course: Fund. To Advanced**

Lehigh University

Bethlehem, PA

Contact: Sharon Coe

[slc6@lehigh.edu](mailto:slc6@lehigh.edu)

[www.lehigh.edu/microscopy](http://www.lehigh.edu/microscopy)

June 20-23, 2005

**2005 Int'l Conference on  
Computer Vision**

Monte Carlo Resort

Las Vegas, Nevada

Contact: Sim Kok Swee

[kssim@mmu.edu.my](mailto:kssim@mmu.edu.my)

July 22-28, 2005

**6th Int'l Weber Symposium  
on Innovative Fluorescence  
Methodologies in Biochem.  
& Medicine**

Kauai Marriott Resort and  
Beach Club

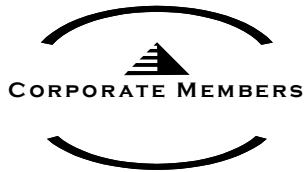
Kauai, Hawaii

Contact: Julia Wright

[wrightj@uiuc.edu](mailto:wrightj@uiuc.edu)

<http://lfd.uiuc.edu/weber/>

\*\*\*\*\*



## 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](mailto:BusinessOffice@microscopy.org)

*Please see MSA website ([www.msa.microscopy.com](http://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.

### 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

### March 8th Meeting at UMASS-Dartmouth-Plagued by Another N. E. Storm!

After a couple of years of wonderful winter white snow at NESM meetings at Gordon college, NESM decided to have this winter (March) meeting as far south as possible....at the UMASS-Dartmouth ATMC center....But Old Man Winter came blowing down and turned a rainstorm into something that it is not proper to put into written words. Those of us who had earlier attended a NESM cryo-workshop believed ourselves professional enough to control our ice and even to smoothly perform cryo-transfer, but even we weren't prepared for this blast of ice, snow and rain!

The meeting...Dinner was ample, with a good mix of hot and cold (both food and drinks, and no one lost any meatballs). Discussions ranged from sailing to SEMing to selling.

The **Materials Science talk**, by **Professor David Paine** of Brown University, discussed electrically conductive oxide thin films. The main-stay material of this field is so old it had a 3-letter acronym even before the military invented such...called ITO (Indium-Tin-Oxide) thin films...and has been used to coat everything under the sun (from windows to plastics to flat-panel displays). But we learned there was still room for major improvement just by adding a little kitchen sink, I mean Zinc...anyway..if you do the right thing, or even if not, there are wonderful microstructures to observe in the TEM, and we saw movies of crystallization and grain boundary impingement...and oh yeah a chance to use Convergent Beam Electron Diffraction to discover yet another new crystalline phase...But any way you view it (Dark field or Bright field), Professor Paine's new material has better electrical properties, better mechanical properties and better heat resistance.

The **Biological Sciences talk** by **Dr. Emmanuel Pothos** of Tufts University School of Medicine, debunked a dogma of neurobiology, that the stimulating neurotransmitter is spritzed out of the nerve ending in identically-sized packets called QUANTA. Dr. P. examined dopamine-releasing neurons, some grown in culture dishes and some in living slices of rat brain, but all were visualized with good old light microscopy. A deficit in dopamine results in Parkinson's disease. It is also released during every feel-good response (tasting chocolate, snorting cocaine, orgasm). That makes it cool in itself, but what is cool about it for Dr. P's work is that dopamine oxidation currents can be measured directly; he doesn't have to rely on recording voltage changes of neighboring cells to infer how much dopamine is being released. He uses carbon microfibers encased in glass micropipettes (tip size a few microns) as electrodes, and uses an inverted microscope (optics are below the slide) so that he has room to maneuver his electrodes. It's also cool that he has the entire apparatus enclosed in a Faraday Cage, a simple device made from metal screen that is more-often used by physicists to protect the public from lightening made with Van de Graf generators and by the military to send electromagnetic pulses (EMP) from nuclear explosions to ground. Result? The amount of dopamine released shows infinite variation; "quantal bumps" are history. Dr. Pothos courteously cut his talk short because of worries about the deteriorating weather, and he consequently had to skip over some dynamite micrographs. If you want to see them, he can direct you to on-line pubs where they are.

His email is [emmanuel.pothos@tufts.edu](mailto:emmanuel.pothos@tufts.edu).

(Thanks to Warren MoberlyChan, Dan Gibson and Steve Stokowski for their review)

**NESM thanks our host, UMASS-Dartmouth and the two speakers who braved the elements to give such interesting talks !**



## Close-Up of Sustaining Members

A drawing of business cards at the 2004 Woods Hole Symposium led to the two sketches of Sustaining Members seen below. Expect to learn more about more of our Sustaining Members in Newsletter issues to come.

**MicroStar Technologies (MST)** was founded by Bernard Mesa in 1982, after 8 years of independent research, to produce ultramicrotomy diamond knives. Presently MST supplies diamond knives to laboratories in 57 countries, where Micro Star is regarded as setting a standard of high quality and service. MicroStar Technologies has been a perennial exhibitor at Woods Hole for many years. **Cathy Ryan** is the Corporate Member.

In the mid 90's MST developed a compact and affordable Cryo Ultramicrotome. Besides TEM sample sectioning, this instrument has proven especially adaptable for AFM sample preparation where molecular scale smoothness is required.

In the late 90's, MST developed numerous diamond and sapphire tools for the emerging fields of MEMS and Nano Technology. These include nano indenters, AFM diamond tips and diamond tools for nano machining. The common characteristic of these tools is their extreme sharpness and accuracy at nanometer scale.

In 2002 MST discovered a new technology to produce single crystal diamond filaments. The filaments have the expected but remarkable and never seen before property of being flexible. MST is beginning to explore the scientific and nanotechnology applications.

Visit their website at [Microstartech.com](http://Microstartech.com) for a fascinating look at the single crystal diamond filaments, and for information about MST Diamond knives, ultramicrotomes, and a variety of nanoproducts: nanoindenter tips and probes for AFM's.

MST has developed and designed unique equipment for manufacturing and assembling nano scale diamond tools. MST extensive microscopy laboratory includes state of the art optical, TEM, SEM and AFM instruments. The unique characteristics of diamond and sapphire demand individual attention to each one of the products MST makes. MST is especially well suited to custom designs and applications. Requests for special items are always welcome.

The MST website is [microstartech.com](http://microstartech.com), and **Cathy Ryan** can be reached at **(800) 533-2509**.

\*\*\*\*\*

**JEOL USA** is one of NESM's original Sustaining Members and has long been an active and generous sponsor. JEOL's location in Peabody has made their facilities a convenient venue for NESM meetings, particularly when new microscope techniques, requiring ancillary equipment by OEM manufacturers are demonstrated. **Steve Hamilton**, Northeast Sales Manager, is the corporate member, but many members of the JEOL staff are regular NESM members. Dave Harling, a past NESM president and director of JEOL Institute, Mike Kersker, Chuck Mooney, Vern Robertson, and Donna Guerrero are among the JEOL scientists who have presented at NESM meetings in recent years. Donna is currently serving on the board as a Materials Science Director.

The JEOL website is [jeol.com](http://jeol.com). The wide varieties of JEOL microscopes are presented there. These include not only scanning electron microscopes and transmission electron microscopes, but also scanning probe microscopes and surface analysis instruments. Both Auger and a photoelectron spectrometer with minimum X-ray spot size of 30microns are included in the surface analysis group. The range of TEM options are fully discussed. Features of each of the SEMs, -- high vacuum, low vacuum, thermal field emission, and cold cathode field emission SEM's are all described.

Software for boosting the functionality of analog and DOS-based SEM's are described, along with CD metrology for later instruments. Specimen preparation equipment includes an ion-beam cross-section polisher and a high vacuum evaporator for both TEM and SEM prep.

Hands-on training courses in SEM and TEM are available at the JEOL Institute. Class sizes for SEM and TEM are typically limited to five students per instrument, and training is adapted to all levels of experience. A one-day workshop on using **wetSEM** technology is currently being publicized on the SEM pages.

**Steve Hamilton** can be reached at **(978)535-5900**.

# Advance Registration Form

Registration after April 22nd 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*)

## Registration Deadline

**April 22, 2005**

Note: All 2004 members of NESM were invoiced for 2005 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.**

### Advance Registration including Dinner on 4/29/05

- |   |          |                          |                                     |   |
|---|----------|--------------------------|-------------------------------------|---|
| <input type="checkbox"/> NESM Member                | \$50.00  | <b>Dinner</b> (choose 1) | <input type="checkbox"/> Fish       | <u>Please note:</u> Dinner reservations <b>cannot</b> |
| <input type="checkbox"/> Non-member                 | \$65.00* |                          | <input type="checkbox"/> Chicken    | be accepted after April 22nd.                         |
| <input type="checkbox"/> Student/retired member     | \$50.00  |                          | <input type="checkbox"/> Vegetarian |   |
| <input type="checkbox"/> Student/retired non-member | \$55.00* |                          |                                     |   |
| <input type="checkbox"/> Guest Registration         | \$50.00  |                          |                                     |   |
| <br>  |          |                          |                                     |   |
| <input type="checkbox"/> T-shirt                    | \$12.00  |                          |                                     |   |

### Accommodations

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

- Double Occupancy \$46.50/person\*\*  
 Single Occupancy \$81.50/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*)

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

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

## Mark Your Calendars!

### Future Dates for Woods Hole Symposium\*

**2006** 5/4-5/6

**2007** 5/3-5/5

**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**

Please Post

# 22nd Annual Spring Symposium

hosted by

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

April 29-30th 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 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

Go to NESM's website—<http://nesm.cims.harvard.edu>

# 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 2005

*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 2005

### President

2005

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

### President-elect

2006

Daniel G. Gibson  
 WPI (508) 831-5543  
 dgibson@WPI.EDU

### Past President

2005

Rick Rogers  
 HSPH (617) 432-3472  
 rogers@bioimage.harvard.edu

### Treasurer

2005

Paul Bain  
 Countway Library (617) 432-3236  
 paul\_bain@hms.harvard.edu

### Clerk

2005

Tony Garratt-Reed  
 MIT (617) 253-4622  
 tonygr@MIT.EDU

### Corresponding Secretary

2005

Peggy Sherwood-MGH  
 Wellman Center of Photomedicine  
 (617) 724-4839; mesnesm@rcn.com

### Materials Science Directors

2005

James F. Mancuso-AMT  
 (978) 774-5550; info@amtimaging.com

2006

Warren Moberlychan-Center for Imag/Mesoscal Strt.  
 (617) 496-8832; moberlychan@cims.harvard.edu

2007

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

### Biological Sciences Director

2005

Russell R. Camp-Gordon College  
 (978) 867-4385; camp@gordon.edu

2006

Renee Dickie-HSPH  
 (617) 432-0123; rdickie@hsph.harvard.edu

2007

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

\*\*\*\*\*

**Mailing Address:** NESM, P.O. Box 425795, Cambridge, MA 02142

**(New) NESM Web site:** <http://nesm.cims.harvard.edu>



## Thursday, April 28th Half-Day Workshop

### **Presentation Skills and Details for Microscopists**

*Presented by*

#### **Paul Matsudaira**

*Member, Whitehead Institute*

*Professor of Biology & Bioengineering, MIT*

*Director, WI-MIT BioImaging Center*

A key to success in science, engineering, and business is the ability to communicate ideas, plans, and studies. This half day workshop will focus on the how to organize, design, and deliver an effective talk before a diverse audience. Modeled after the MIT 7.18 biology course, participants will learn the basic features of a presentation: telling a story, hitting the median, telling stories with images, and proper annotation and attribution during their talks. In the second part of the workshop, participants will organize into small groups which will analyze and critique presentations contributed by participants of the workshop and following the model presented in the lecture. The workshop will end with a selection of four presentations and a workshop discussion.

To prepare for the workshop, students should read "The Cognitive Style of PowerPoint" by Edward Tufte, which might be available in some bookstores and can be ordered at (<http://www.edwardtufte.com/tufte/powerpoint>).\* This is a cogent essay on the uses and misuses of the PowerPoint presentation. In addition, students should prepare a 15 minute presentation in PowerPoint or as overheads (viewgraphs). Your presentations will serve as the basis material for instruction.

#### *About the presenter:*

Paul Matsudaira was trained as an electron microscopist by Dr. Tom Schroeder (U. of Washington, Friday Harbor Labs) and worked as a technician studying the role of microfilaments in the cytokinesis of marine invertebrate embryos. His interest in microscopy continued as a graduate student at Dartmouth College where he applied electron microscopy and biochemistry to identify the structure of the intestine brush border cytoskeleton. He learned state-of-art video light microscopy in the neighboring lab of Prof. R.D. Allen. As a postdoc at the MRC Laboratory of Molecular Biology and now as Member, Whitehead Institute and Professor of Biology and Biological Engineering at MIT, Paul continued to apply different imaging modes to the study of cell structure and movement. As the founding director of the WI-MIT BioImaging Center, he has quickly built a state-of-art resource for imaging and computation across the scale of resolution and size.

\* This booklet will be available at the workshop

# Presentation Skills and Details for Microscopists

## Registration Information

**Date:** Thursday April 28th 2005, 1:00 pm - 5:00 pm

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

**Cost:** Registration: \$75.00 (plus \$15 membership dues for non-members of either society)

**Computer rental** (if required - see below): \$20

**Accommodation (bed and breakfast, if required):** \$81.50 single, \$46.50 double. (Note: dinner is not included for Thursday night)

Computers: A modern PC is required. Minimum configuration: 128MB ram, any Pentium, 1 GB hard drive, 640 x 480 screen, Windows 2000 (or maybe 98). The more your computer exceeds these specifications, the better the programs will run. If you do not have access to a suitable laptop, we have made arrangements to rent machines for \$20 for the day. If you bring your own machine, you will receive instructions on downloading and installing the software ahead of time.

To reserve your place: Since space in the seminar is limited, advance reservation is essential. Send your name, along with contact information, to Paul Bain at Harvard Medical School, Countway 212, 10 Shattuck Street, Boston, MA 02115, Tel 617-432-3236, Fax 617-432-0693, e-mail Paul\_bain@hms.harvard.edu. Indicate whether you will need a rental computer and/or 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. You will be invoiced for the applicable payment. **IMPORTANT:** to retain your space, it is necessary for payment in full to be received by Friday April 15th. 2005. (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 15th. Cancellations received after April 15th. but on or before Wednesday April 27th. 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".

PLEASE POST

## CALL FOR POSTERS AND PHOTOMICROGRAPHS

**22nd Annual Spring Symposium**

**Woods Hole, MA**

**Saturday, April 30th ♦ 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 22, 2005**.

\*\*\*\*\*

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

Note: Please see page 3 of this newsletter for Judging Criteria