GORDON COLLEGE once again welcomes NESM for its 37th Annual Fall Symposium on December 9th!

NESM is pleased to return to the beautiful campus of Gordon College for its 37th Annual Fall Symposium!

Gordon College, named for the Rev. Dr. A.J. Gordon, a prominent clergyman of the late 1800s, was originally founded in Boston in 1899 as a missionary training institute. In 1955, Gordon moved to its present location in Wenham, Mass. In 1970, the divinity school separated from the college, merging with the Conwell School of Theology in Philadelphia. In 1985, Gordon merged with Barrington College, retaining the name of Gordon College. At the merger, Barrington's distinguished history of Christian service and faithfulness became a part of Gordon's history. Today Gordon College stands as one of the top Christian liberal arts colleges in the country and the only nondenominational Christian college in New England.

The Symposium begins at 12:00 Noon with Registration followed by welcoming statements by NESM’s President, Anthony Garratt-Reed and Russ Camp of Gordon College. Session I will commence at 1:00 pm, followed by a coffee break at 2:45 pm. Session II will begin at 3:00 pm. We have an interesting mix of talks and speakers and are pleased to welcome two speakers from the Biology Department of Gordon College. The Annual Business Meeting will convene at 5:00 pm. One of the main agenda items will be the election of new officers for the year 2004. Your attendance and vote at this business meeting is greatly encouraged. We have a wonderful slate of officers, but you can still add your name to the ballot—please consider running for an office! New faces are always welcome! Ballots are included in the newsletter. Please seal them in the enclosed envelope marked “BALLOT” and mail it along with your registration form and registration fee.

Dinner will commence at 6:00 pm followed by an after-dinner talk “Microscopy and Micromorphology of Archeological Sediments” by Prof. Paul Goldberg of the Department of Archaeology of Boston University. The meeting will adjourn at 8:00 pm with a message from our incoming President, Rick Rogers.

We look forward to seeing you on December 9th and encourage you to support our Society! Please note that the symposium is on Tuesday this year.

Advance registration, with dinner, is required for this meeting. Fill in the Advance Registration form in this newsletter and return it, along with your payment, by December 5th, to Paul Bain, Treasurer. Dinner reservations will be processed only after payment is received. Please include your ballot with your mailing!
37th Annual Fall Symposium and Business Meeting
Gordon College · 255 Grapevine Road · Wenham, MA 01984 · 978.927.2300
(http://www.gordon.edu)

Tuesday, December 9, 2003
12 Noon to 8:30 pm

12:00 pm **Registration**—Presidential Dining Room (Lane Student Center)
12:45 pm **Welcome**: Tony Garratt-Reed, NESM President

**Session I**
1:00 pm “Comparative TEM Study of Negatively Stained Multilamellar Vesicles Containing Specific Phospholipids and Cholesterol” - Jungsoo Byun (Biology Department-Gordon College)
1:35 pm “TEM of Epitaxial Thin Films Controlled by Planes Extending (near) Normal to Interface—with Application to Two Methods to Reduce Crystal Orientations in Polycrystalline Magnetic Media” - Dr. Warren MoberlyChan (Center for Imaging and Mesoscale Structures-Harvard University)
2:10 pm “Vesiculo Bullous Disease in the Oral Cavity: Trying to Understand Autoimmune Diseases with Unknown Mechanism” - Dr. Jeffrey Casiglia (Department of Oral Medicine-Harvard School of Dental Medicine & Brigham and Women’s Hospital)

2:45 pm **Coffee Break**

**Session II**
3:00 pm “Microwave Techniques for Transmission Electron Microscopy” - Steven E. Slap, Consultant
3:40 pm “Major Developmental Events Leading to Plant Regeneration from Induced Corn (Zea mays) Microspores” Prof. Ming Y. Zheng (Biology Department-Gordon College)
4:20 pm “Microvessel Regulation in Adipose Tissue” - Dr. Maria Rupnick (Division of Surgical Research-Childrens Hospital)
5:00 pm **NESM Annual Business Meeting**
   Election
   Reading of Minutes of 2002 Annual Business Meeting
   Report of President
   Report of Treasurer
   Introduction of New Officers

6:00 pm **Dinner**

7:00 pm **After-Dinner Speaker**
“Microscopy and Micromorphology of Archeological Sediments”
Prof. Paul Goldberg-Department of Archaeology
Boston University

8:00 pm **Adjournment** - Rick Rogers, Incoming NESM President
REGISTER TODAY!

◆ Meeting Date  
December 9, 2003  
12 Noon—8:30 pm

◆ Meeting Location  
Gordon College

◆ Highlights  
2 Scientific Sessions

◆ Dinner/ After dinner talk

◆ Meeting Deadline  
December 5, 2003

Advance Registration Form
Registration after December 5th will not include dinner.

To register, please fill out this form below and send it with your check, payable to NESM, to:
Paul Bain  
HMS-Countway 212  
10 Shattuck Street  
Boston, MA 02115  
617-432-3236  
If you have questions, please email Paul at: paul_bain@hms.harvard.edu

First Name ___________________________ Last Name ___________________________ □ Dr. □ Ms. □ Mr.
Company ___________________________ Title ___________________________
Address _____________________________________________________________
City ___________________________ State ___________________________ Zip ___________________________
Phone ___________________ Fax ___________________ E-mail ___________________

Advance Registration
☐ NESM Member $20.00
☐ Non-member $35.00*
☐ Student/retired member $5.00
☐ Student/retired non-member $10.00*
☐ Dinner** $ 5.00
☐ Guest Registration $10.00
Guest Name ___________________________
☐ Guest Dinner** $15.00

Gordon College staff and students register free of charge
*All non-member registrations includes current-year-only NESM membership
**Dinner not included in registration

Total Enclosed ___________________________

Registration Deadline  
December 5, 2003

MENU

Fresh Fruit Cup
Chicken Marsala
Expressor Mousse Torte
Coffee & Tea

Note: Anyone desiring a vegetarian entre, please contact Paul Bain (paul_bain@hms.harvard.edu) by December 5th. There is a limited number of these meals available.
MSA Application for Membership

Microscopy Society of America
230 East Ohio Street, Suite 400 Chicago, IL 60611-3265  •  800-538-3672
FAX: 312-644-8557  •  E-mail: BusinessOffice@MSA.Microscopy.Com

Name (print)__________________________  □ Dr.   □ Ms.   □ Mrs.   □ Mr.

Mailing address ( ○Home  ○Office)
__________________________________________________________________________
City________________________State________Zip____________Country_________
Phone (days)_________________Fax_____________Major Interest:  □ Physical Sciences
□ Biological Sciences
E-mail__________________________□ Both

Institutional Affiliation:________________________________________________________

Circle Major Interests:  Light/Optical - Confocal - 2 Photon - Near Field - R/Raman - Acoustic
Scanning Probe - Scanning Ion - X-Ray Microscopy - SEM - TEM - STEM - IVEM/HVEM
LEEM - AEM - EELS - EDS - WDS - EMPA - AES - ESCA - SIMS - FIM/AtomProbe - MRI
XRF/XRD - Other_____________________

Nominating MSA member:  Nestor J. Zaluzec

Signature of Advisor (for student applicants):______________Date:___________________

Signature of Applicant:__________________________

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: $45 annually (North America-U.S./Canada/Mexico)
☑ Regular Member: $63 annually (outside of North America)
☑ Student (full-time): $15 annually  ☑ Student (part-time): $33 annually(outside of No. America)
☑ Corp. Member: $375 annually  ☑ Corp. Member: $393 annually (outside of No. America)

Visa/Master Card Number (include all numbers)_____________________________________
Expires Month/Year:__________Exact Name on Card:_______________________________

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

Would you like to receive MSA related News by Email?:  ○Yes    ○No

Would you like someone from MSA to contact you to answer a membership question?
    ○Yes   ○No

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

The Nominating Committee for 2004 is pleased to present to the membership the following Slate of Nominees for your consideration at the Annual Meeting and Election of Officers to be held at Gordon College on December 9, 2003.

FOR PRESIDENT-ELECT (Term: 1 year)
Steve Stokowski: Steve was elected to the board last year as a Materials Science Director. After serving one year of a 3-year term, Steve, who has been a very vocal and visible member of the board, has agreed to run for President-Elect. Consulting Geologist/Petrographer with 27 years experience. President of Stone Products Consultants, Ashland, Massachusetts. SPC provides concise, timely, and accurate petrographic analyses of concrete, mortar, tile, stone, and similar construction materials. Steve was previously with Vulcan Materials in Birmingham, Alabama as Research Scientist and Manager of R & D Lab; Genstar Stone Products Company in Baltimore, Maryland as Research Engineer; Martin Marietta Laboratories in Baltimore, Maryland; and the U.S. Geological Survey in Reston, Virginia. He has a MS in Geology from the South Dakota School of Mines and Technology; registered or certified in Geology from the South Dakota School of Mines and Technology; registered or certified in Georgia, Tennessee, Indiana, Virginia, Alaska, and Maine.

FOR BIOLOGICAL DIRECTOR (Term: 3 years)
Renee Dickie: Renee Dickie is a NIH postdoctoral research fellow in the BioMedical Imaging Lab at the Harvard School of Public Health. She received her B.Sc. in zoology from the University of Toronto where she was a NSERC research fellow studying morphological correlates of niche partitioning in Arctic birds. She received her Ph.D from the Department of Integrative Biology at the University of California, Berkeley, where she studied salamander tail morphology as a model for evolutionary developmental morphology. She then became a lecturer in comparative anatomy at Berkeley. Her interests include evolution, development, and morphology, particularly the interrelationships of vertebrate form and function. She is a member of the Harvard Kresge NIEHS Center for Environmental Health and has been a NEM member since 2001.

FOR MATERIALS SCIENCE DIRECTOR (Term: 3 years)
Warren Moberly-Chan: Warren is a Lecturer in the Division of Engineering and Applied Sciences at Harvard University, and a staff member of the Center for Imaging and Mesoscale Structures (CIMS). His background is materials characterization, and he has been operating electron microscopes for over 25 years. He has worked in several academic labs, including Stevens Institute and Lawrence Berkeley Labs. He has worked for several industries, ranging from hard drives to aerospace to oil drilling. His research has included shape memory materials, magnetic thin films and structural high-temperature ceramics. His accomplishments include directing a team that produced the world’s toughest Silicon Carbide; and implementing the largest automated cleaner in Japan’s premier hard-drive manufacturing line with a goal to meet the Montreal Protocol for Freon abatement. This latter experience taught him that cleaning is paramount to materials science, that dirt is everywhere especially in cleanrooms and vacuum systems, that controlling dirt and impurities is paramount to materials science, that dirt is everywhere especially in cleanrooms and vacuum systems, that controlling dirt and impurities is paramount to materials science, that dirt is everywhere especially in cleanrooms and vacuum systems, that controlling dirt and impurities is paramount to materials science, that dirt is everywhere especially in cleanrooms and vacuum systems, that controlling dirt and impurities is paramount to materials science, that dirt is everywhere especially in cleanrooms and vacuum systems, that controlling dirt and impurities is paramount to materials science, that dirt is everywhere especially in cleanrooms and vacuum systems, that controlling dirt and impurities is paramount to materials science, that dirt is everywhere especially in cleanrooms and vacuum systems, that controlling dirt and impurities is paramount to materials science, that dirt is everywhere especially in cleanrooms and vacuum systems, that controlling dirt and impurities is paramount to materials science, that dirt is everywhere especially in cleanrooms and vacuum systems.

FOR CORRESPONDING SECRETARY (Term: 2 years)
Peggy Sherwood (re-election) Peggy has held this position, as well as Newsletter Editor, since January 2000.

FOR TREASURER (Term: 1 year)
Paul Bain (re-election) Paul has held this position since January 2002.

NESM would like to thank the Nominating Committee: Lynne Garone, Rebecca Stearns and Rick Rogers, for all their hard work. They have come up with a slate of very qualified nominees. If anyone else is interested in running for any of the above offices, it is not too late to throw your hat in the ring! Just add your name to the ballot (which is included in this mailing) and put it in the enclosed envelope marked BALLOT. Either mail it along with your registration form or bring it to the meeting. The election will be held at the annual meeting on December 9th.
Directions to GORDON COLLEGE

Gordon College is easy to get to from the west, south or north. We are located just off exit 17 on Massachusetts State Route 128. Look on a map and we are located just about in the middle between Gloucester, Mass. and Salem, Mass.

From points West:
(New York State, Pennsylvania, Connecticut, Western Massachusetts)

Take an east-bound highway (i.e. Mass Turnpike, Route 90) to Route 95 North. Stay on Route 95 until it separates from Route 128. Take Route 128 North toward Gloucester, passing through Peabody, Danvers and Beverly. Get off at Exit 17. Turn left at top of ramp, going one-quarter-mile to Gordon College, on Grapevine Road. *At the AJ Gordon Chapel, take a right and park in the lot directly in front of it. There will be a sign Event Parking-NESM. Proceed to the Lane Student Center-Presidential Dining Room for the meeting. (See enclosed map of campus for building/parking locations)

*(Note: If you miss this turn-off, you will come to the main entrance of the college, turn around at this point).

From points North:
(Maine, Vermont, New Hampshire, Manchester Airport)

Take Route 95 South to Route 128 North. Remain on Route 128 North, passing through Peabody, Danvers and Beverly. Get off at Exit 17. Turn left at top of ramp, going one-quarter-mile to Gordon College. (follow directions above)

From points South:
(Boston, Logan Airport, Rhode Island, TF Green Airport)

As you leave Boston/Logan Airport, look for signs for 93 North. Take 93 North to Route 95 North, and then follow the directions below.

Stay on Route 95 until it separates from Route 128. Take Route 128 North toward Gloucester, passing through Peabody, Danvers and Beverly. Get off at Exit 17. Turn left at top of ramp, going one-quarter-mile to Gordon College. (follow directions above)

Please note:
Routes 95 and 128 have similar exit numbers. Begin to pay attention to exit numbers once you get onto Route 128 North after it separates from Route 95.

Please See Gordon College Website for map of campus:  www.gordon.edu
THE NEW ENGLAND SOCIETY
FOR MICROSCOPY

BALLOT
Vote for One for each office

President-Elect (1-year term)
☐ Steve Stokowski
☐ ________________

Biological Director (3-year term)
☐ Renee Dickie
☐ ________________

Materials Science Director (3-year term)
☐ Warren Moberly-Chan
☐ ________________

Corresponding Secretary (2-year term)
☐ Peggy Sherwood (re-election)
☐ ________________

Treasurer (1-year term)
☐ Paul Bain (re-election)
☐ ________________
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

HMS-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.

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 and send c/o Paul Bain, Countway 212, 10 Shattuck St., Boston, MA 02115

NEMS Officers 2003

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<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Company/University</th>
<th>Phone/Email</th>
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<tbody>
<tr>
<td>President</td>
<td>Anthony J. Garratt-Reed</td>
<td>MIT (617) 253-4622 <a href="mailto:tonygr@MIT.EDU">tonygr@MIT.EDU</a></td>
<td></td>
</tr>
<tr>
<td>President-elect</td>
<td>Rick Rogers</td>
<td>HSPH (617) 432-3472 <a href="mailto:rogers@bioimage.harvard.edu">rogers@bioimage.harvard.edu</a></td>
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<tr>
<td>Past President</td>
<td>Lynne Garone</td>
<td>E Ink Corp. (617) 499-6000 X6149</td>
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<tr>
<td>Treasurer</td>
<td>Paul Bain</td>
<td>Countway Library (617) 432-3236</td>
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</tr>
<tr>
<td>Recording Secretary</td>
<td>Mary McCann</td>
<td>McCann Imaging (617) 484-7865 <a href="mailto:mccamns@tiac.net">mccamns@tiac.net</a></td>
<td></td>
</tr>
<tr>
<td>Corresponding Secretary</td>
<td>Peggy Sherwood</td>
<td>MGH-Wellman Labs of Photomedicine (617) 724-4839; <a href="mailto:MESnesm@rcn.com">MESnesm@rcn.com</a></td>
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NEMS Website: http://prism.mit.edu:8083
Microscopy Society of America
2004 Undergraduate Research Scholarship Program

With this year's call for applications, the MSA Undergraduate Research Scholarship Program begins its 16th year providing funding for undergraduate research. To date over 81 projects covering a wide range of topics in the physical and biological sciences have received support through this program. Over the years, nearly all of the scholarship recipients have maintained a strong interest in imaging sciences and have gone on to graduate school, professional school, teaching, or industry positions.

The program, which is funded by MSA and by matching funds from MSA Sustaining Members, is able to support over 50% of applicants. The maximal award for the Undergraduate Scholarships is $3,000 and helps to provide student stipends, supply costs, and limited travel expenses associated with the research. Additional support in the form of instrument use time, equipment purchases, etc., is generally provided by the student's supervisor and/or through the sponsoring institution. Abstracts reporting the research results, are prepared by scholarship awardees, and published in "Microscopy and Microanalysis".

The program actively seeks sources of matching funds in order to maintain the favorable levels of support both in terms of the number of projects supported and the level of support for each. We are extremely grateful for the matching support provided by MSA sustaining members and individuals. Their support over the years has enabled the program to increase both the number of awards and the maximum amount of each award. For 2003 we are particularly grateful for support provided by Gatan and JEOL.

The MSA Undergraduate Research Scholarship Program is currently soliciting applications from students interested in conducting a research project which involves the use of any microscopy technique. Students should be sponsored by a member of MSA. The maximal award is $3000. The application deadline is Dec 31, 2003. Application forms and instructions are available on the MSA web site, www.msa.microscopy.com. Applications can also be obtained from the MSA Business Office, businessoffice@msa.microscopy.com or call toll free at (800) 538-3672. If you have any questions or require additional information regarding the program please contact:

Dr. Ralph Albrecht, University of Wisconsin
1675 Observatory Drive, Madison, WI 53706
(608) 263-3952 or 263-4162; (608) 262-5157 FAX; albrecht@ansci.wisc.edu

2003 awardees

1. Renee Lopez-Smith. Microscopic study of fertilization in the fern Ceratopteris: the role of actin in gamete fusion. Southern Illinois University, Advisor: Karen Renzaglia
2. Brigit O'Donnell. Effect of vein pattern alteration on movement of turnip vein clearing virus. New Mexico State University Advisor: Dr.Souuumitra Ghoshroy