

Minnesota Microscopy Society

Local affiliate of the Microscopy Society of America
and the Microbeam Analysis Society

Newsletter

January 2012



Tour of the Raptor Center

at the
UNIVERSITY OF MINNESOTA
COLLEGE OF VETERINARY MEDICINE

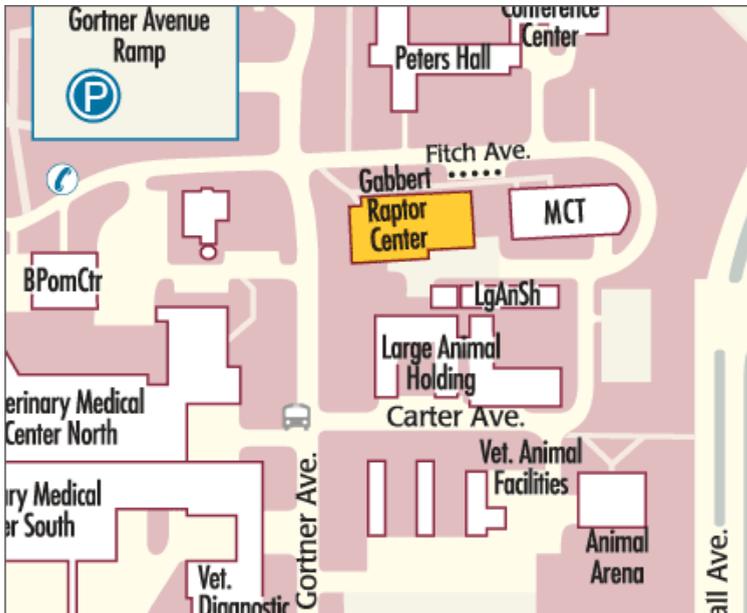


The University of Minnesota's Gabbert Raptor Center in St. Paul.

Date: Thursday, February 23, 2012
Time: 7:00 pm
Location: [Gabbert Raptor Center](#) at the U of 
St. Paul Campus
(1920 Fitch Ave., St. Paul, MN
55108)

[Google map](#) | [U of M map](#)

Parking: Fitch Avenue meters, Lot 104, Lot
108 or Gortner Avenue Ramp



Educational program including eagle presentation.

REGISTRATION

Submit your registration online at <http://www.mnmicroscopy.org/calendar.html>
by **February 16, 2012**. Limited to 30 participants.
\$5 via PayPal, \$10 cash/check at the door.



Early 2012:

January 26

What: TESCANA USA WEBINAR:

3D FIB Tomography and Reconstruction of Materials in FIB-SEM Workstation

When: 2:00 – 3:00 PM EST, Thursday 26-Jan

Details: You are cordially invited to a TESCAN-VSG joint webinar on 3D FIB-SEM tomography.

Registration: <http://bit.ly/TescanWebinar>

March 15

What: Minnesota Technical Symposium (MinnTS)

Location: Medtronic Inc. World Headquarters
Fridley, MN (I-694 and Central Avenue)

Details: 5:00p check-in | 6:00p dinner | 7:00p speakers

- Pam Stewart, 3M Patent Attorney – “The Leahy-Smith America Invents Act: New Rules for U.S. Patents and What They Mean for Industry and Inventors.”
- Maria Johnson, AUM Cardiovascular CEO – “Wisdom in Innovation: Lessons from General Motors, the University of Minnesota and AUM Cardiovascular.”

Visit MinnTS.org for more meeting and speaker info.

Registration Deadline: March 6

See <http://www.MnMicroscopy.org/calendar.html> for registration details.





May 4 **What:** **MMS Spring Symposium**

Location: Minnesota Science Museum
St. Paul, MN

Details: 7:30 - 8:15p check-in

Speakers:

- [Ed Vincenzi](#), *Research Scientist, Museum Conservation Institute – Art Conservation at the Smithsonian.*
- [Nicholas Ritchie](#), *Physicist, NIST – DTSA2 Spectral Processing Workshop Parts 1 and 2.*
- [Larry Hanke](#), *Metallurgist, Materials Evaluation & Engineering, Inc. – Forensic Microscopy.* (Actual title tbd.)
- [Bob Svare](#), *Elec. Engineer, Svare Professional Engineering – Forensic Engineering.* (Actual title tbd.)

Registration Deadline: April 28 – registration details to come

**Minnesota Microscopy Society
Treasurer's Report
01/01/11 Through 12/31/11**

INCOME

Dues	4,438.00
Interest Income	44.41
Meeting Registration	655.00
MinnTS	4,674.92
Other Income	175.00
Spring Symposium 2011 Income	<u>4,650.00</u>

TOTAL INCOME**14,637.33****EXPENSES**

Credit Card Fees	453.38
Insurance	276.27
Meeting Expenses	2,077.03
MinnTS Expenses	5,013.55
Miscellaneous	185.86
Newsletter	680.00
Project Micro	380.49
Spring Symposium 2011 Expense	<u>4,368.89</u>

TOTAL EXPENSES**13,435.47****OVERALL TOTAL****1,201.86**

Microscope Day at the Science Museum

On Saturday, November 5, 2011, the Minnesota Microscopy Society and Project MICRO partnered for the third year with the Science Museum of Minnesota for *Microscope Day*. Hundreds of museum visitors took part in eight different activities spread throughout the museum, learning about what microscopes can reveal. Seventeen wonderful, dedicated MMS Volunteers presented: Gail Celio, Cary Christopherson, Bob Fisher, Muriel Gavin, Lisa Lagoo, Jon Lenz, Rob Lundquist, Alon McCormic, Stuart McKernan, Devora Molitor, Ann Palmer, Jeff Payne, Nick Rennich, Derek Roth, Mark Sanders, Anna Tavakley and Mike Wroge.



Some special microscopes also joined us: a large stereoscope+camera from the U of MN Imaging Center, three Mighty Scopes from Promise Technologies and Production Supply Solutions, and a Hitachi TM3000 table-top SEM from North Central Instruments. The photos here show some highlights of the day. A special "thank you" is extended to Ann Palmer for planning and coordinating this event with the Science Museum.



Stuart McKernan showing visitors how to make their own microscopes with paper, tape and a drop of water. He is also showing the details of US currency with his Dino-Scope.

Microscope Day at the Science Museum

continued



Mark Sanders, Gail Celio, and Jon Lenz demonstrate their special stereoscope and table-top SEM in the activity called Lights, Camera, Microscope!



Alon McCormic helps a curious family take micrographs and print photos in the activity called Microscopes Galore!

Microscope Day at the Science Museum

continued



Muriel Gavin, with her EM Lab model, and Bob Fisher demonstrate a Mighty Scope to an enchanted visitor.

MMS Moves to **PayPal** Credit Card Payments



In 2012, MMS moved to PayPal for processing payments made via credit card. With the former system, MMS paid a fixed monthly fee to maintain the service, even if no transactions occurred, in addition to any per transaction fees. The majority of credit card transactions occur in September to November and February to May. Even though the per transaction fee is slightly higher with PayPal, eliminating the monthly fees results in a significant savings to MMS.

Moving to PayPal also provides a somewhat simplified process for making reservations for society meetings. Going forward, the "Calendar of MMS Events" link in the upper left corner of the MMS website home page will lead to a list of events for the year with a PayPal link to make your reservation and pay the registration fee. For those unable or unwilling to use PayPal, pay-at-the-door reservations will continue to be taken via telephone or e-mail. Pay-at-the-door will be cash or check only as we will no longer have a way to process credit card payments outside of PayPal. To encourage use of PayPal, we will offer a small discount for doing so.

Position Available



The **University of Minnesota** is seeking an experienced **transmission electron microscopist** for a position in the **College of Science and Engineering Characterization Facility (CharFac)**, which houses a variety of transmission and scanning electron microscopes, in addition to other advanced materials and biological characterization instruments. The applicant should possess expertise in routine TEM maintenance, high-resolution TEM imaging, analytical (S)TEM with EELS and EDX spectroscopy, specimen preparation, and interpretation of results from TEM images, analyses, and diffraction patterns. The successful candidate must be able to multi-task on a variety of TEM-related activities, both independently and in collaboration with disparate “users” ranging from those seeking the services of an expert microscopist (i.e., clients, usually with minimal TEM understanding) to those seeking training to become independent (and some cases advanced) microscopists. The job includes a substantial teaching component as the CharFac has a long history of training students, postdocs, and industrialists to use state-of-the-art materials characterization instrumentation. A Ph.D. or M.S. in materials science, physics, geology, chemistry, chemical engineering, or similar science or engineering discipline is required. A minimum of five years TEM experience for the characterization of solid-state materials is required.

In addition to the technical criteria for a professional microscopist, the following attributes are particularly sought:

1. Ability to interface well with industrial personnel, including training, analytical service and research collaboration.
2. Strong interest in (a) hands-on laboratory work; (b) detailed data analysis; and (c) authoring of client reports, application notes and user training materials (i.e., in addition to journal publications).
3. Interest and aptitude for developing new analytical methodologies as well as IT systems within a technical context (e.g., custom data analysis algorithms).
4. Some experience with aberration-corrected (S)TEMs.

Please submit a letter of interest and curriculum vita to: charfac@umn.edu and please address your letter as follows:

TEM Specialist Search Committee
12 Shepherd Labs
Characterization Facility, University of Minnesota
100 Union St. SE
Minneapolis, MN 55455

Or you may apply online via the following link: [University of Minnesota TEM Position](#)

MMS Corporate Sponsors

Corporate Sponsors are the backbone of financial support for the Society. These members make it possible for the Society to support Project Micro and to cover many expenses of the regular meetings and the Spring Symposium. MMS gratefully acknowledges the Corporate sponsorships provided by the following companies in 2009-2010. To become a Corporate Sponsor, complete and return the MMS membership form at the end of the newsletter.

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If any Corporate Sponsors are missing from this list, please contact Jason Heffelfinger (763-514-1021, jason.r.heffelfinger@medtronic.com).

The Minnesota Microscopy Society would like to express sincere thanks to our Sustaining and Patron Members. These members provide financial support to the organization above the standard membership fee. This additional support makes it possible for MMS to maintain its financial well being. To become a Patron or Sustaining Member, complete and return the MMS membership form at the end of the newsletter.

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Reminder: Membership in MMS runs
from Jan. through Dec.
2012 dues are due now!

Please visit the MMS website, <http://www.mnmicroscopy.org/MMSform.pdf>, for a pdf version of the membership form that can be filled in online, printed and mailed or saved and emailed. To pay via credit card, please go to <http://www.mnmicroscopy.org/MMSMembership.html>.

Minnesota Microscopy Society – Membership Form

All microscopists are urged to support their Society at one of the membership levels offered below. Often, supervisors will support MMS memberships out of their project budget because they recognize that it is a very inexpensive way to maintain and increase the skills of their microscopists. If you have been a member over the years and recognize the value of MMS to the community of microscopists it serves, consider upgrading your membership this year to the patron or sustaining level. Thank you.

Name _____ Dr _____ Mr _____ Ms _____ Phone (____) _____

Affiliation _____ Position _____

Address _____ ZIP _____

E-mail address _____

(Newsletter notifications will be e-mailed to the address above.)

Check here if you do NOT want your name and address to appear in the Society directory.

Are you an MSA member? MAS Member?

Student (\$5-\$9) Basic (\$10-\$24) Patron (\$25-\$99) Sustaining (≥ \$100)

Payment: Check PayPal (Please go to <http://www.mnmicroscopy.org/MMSMembership.html> to make your payment via PayPal.)

Make checks payable to MMS and mail to our Treasurer:

Bede Willenbring, MMS Treasurer
4763 Decatur Ave. North, New Hope, MN 55428-4402
E-mail: Treasurer@MNmicroscopy.org