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# Minnesota Microscopy Society

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



**Newsletter**

**December 2009**

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## **Project MICRO\* Special Edition!**

\*Microscopy In Curriculum Research - Outreach

***Microscope Day at the Science Museum***

***Saturday, November 14, 2009***

***1:00 to 4:00 pm***

Text: Ann Palmer and Jeff Payne

Images: Ann Palmer and Anita Tavakley

On Saturday, November 14<sup>th</sup>, the Minnesota Microscopy Society and Project MICRO partnered with the Science Museum of Minnesota for Microscope Day. Eleven microscope activities were spread throughout the Science Museum for visitors to learn about microscopes and what they can reveal. Hundreds of museum visitors took part in the activities and to see the expressions of amazement on their faces made the event a success.

This Special Edition of the MMS Newsletter is gratefully dedicated to the fifteen MMS volunteers who made this awesome and successful day possible: Cary Christopherson, Burton and Muriel Gavin, Jeff Haggerty, Renu Kumar, Lisa Lagoo, Robert Lundquist, Devora Molitor, Eric and Mia Morrison, Ann Palmer, Jeff Payne, Mark Sanders, Anita Tavakley, and Ozan Ugurlu. Please browse the following pages to see many of them in action! A complete list of activities is on Page 2.

A special “thank you” is extended to Ann Palmer for planning and coordinating this event with the Science Museum.

# Microscope Day Activities

Photos are included only for activities with camera icons.



## 1. Fingerprints! (page 3)

*Examine your own unique fingerprints and see patterns that scientists use to investigate crimes.*



## 2. Make Your Own Microscope (page 4)

*Learn about magnification and make your own microscope!*

## 3. Aquatic Invertebrates

*What's swimming in our watersheds? Learn about tiny critters that live in our ponds, lakes, and streams and what they tell us about water health.*



## 4. The Microscopic World of Sand (page 5)

*View sands from around the world under the microscope. See a variety of colorful mineral grains and fragments of shells.*



## 5. Light, Camera, Microscope! (page 6)

*See what's uncovered using a stereomicroscope with a digital camera from the University of Minnesota Imaging Center.*



## 6. Microscopes Galore! (page 6)

*Inspect human body tissue slides with a fluorescent microscope. Come and use a stereoscope and look at the fabrics we wear! Capture a photo to take home with you!*

## 7. Close-Up!

*Cell Lab teens invite you to participate in a microscope activity designed to look at various items up close and personal! Stop by to create a slide. Then show your friends and family your discoveries!*

## 8. Microfossils

*Practice your skill at identification by examining the smallest fossils in the world!*



## 9. Popping Pop Bottles (page 7)

*Learn why some soft drink bottles explode while waiting in warehouse storage.*

## 10. Everyday Cool Stuff

*It's amazing what a microscope can reveal about everyday things. What does a dollar bill or a toothbrush look like up close?*

## 11. Optics

*Come learn how lenses like those found in microscopes work.*



**And... Muriel Gavin with her EM Lab model! (page 5)**

## Fingerprints! with Devora Molitor



### Activity 1... Fingerprints!

*Examine your own unique fingerprints and see patterns that scientists use to investigate crimes.*



## Fingerprints! with Burton Gavin

## Activity 2... Make Your Own Microscope

*Learn about magnification and make your own microscope!*



Make Your Own Microscope with Lisa Lago



Make Your Own Microscope with Anita Tavakley



The Microscopic World of Sand  
with (left to right in back)  
Cary Christopherson and Robert Lundquist

**Activity 4...**

**The Microscopic World of Sand**

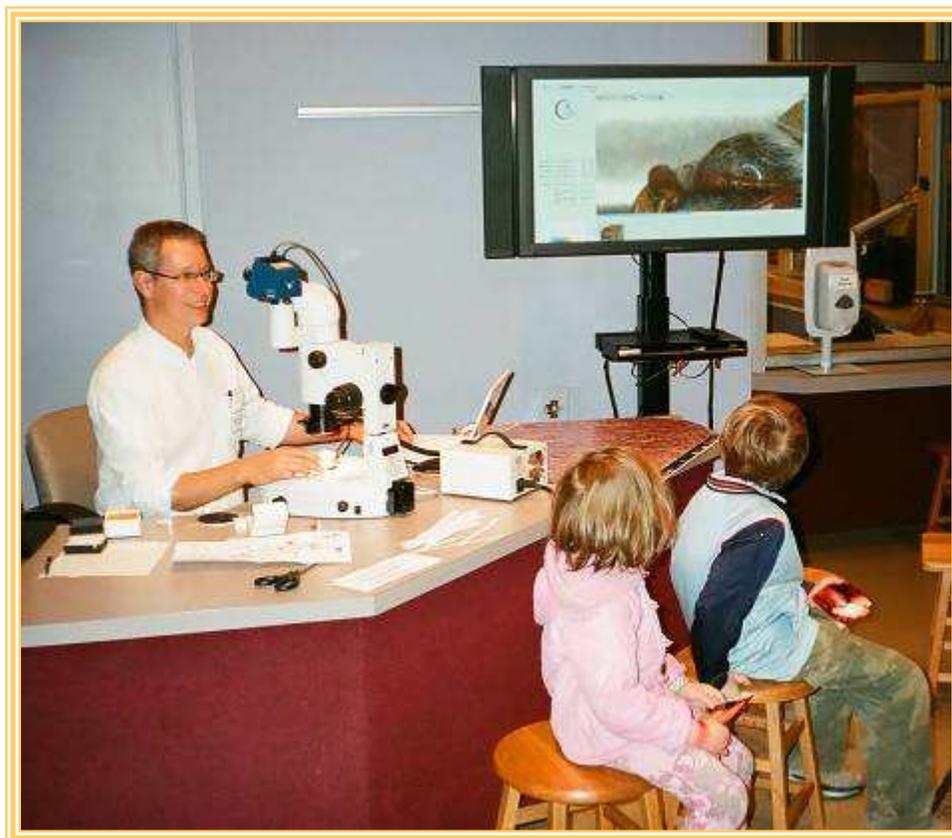
*View sands from around the world  
under the microscope. See a variety of  
colorful mineral grains and fragments  
of shells.*



Muriel Gavin with her EM Lab model

**Activity 5...**

**Light, Camera, Microscope!**  
*See what's uncovered using a stereomicroscope with a digital camera from the University of Minnesota Imaging Center.*



Light, Camera, Microscope! with Mark Sanders

Microscopes Galore! with (left to right)  
Renu Kumar, Jeff Haggerty, and Jeff Payne



**Activity 6...**

**Microscopes Galore!**  
*Inspect human body tissue slides with a fluorescent microscope. Come and use a stereoscope and look at the fabrics we wear! Capture a photo to take home with you!*

### Popping Pop Bottles with Eric Morrison



### Activity 9... Popping Pop Bottles

*Learn why some soft drink bottles explode while waiting in warehouse storage.*



### Popping Pop Bottles with Ozan Ugurlu and Mia Morrison



## Tour of Boston Scientific Corporation CRM Division

Boston Scientific will be hosting a tour for MMS members on **Thursday, February 18<sup>th</sup>, 2010**. Our tour will be followed by a meal catered by Marinos ([www.eatmarinos.com](http://www.eatmarinos.com)). See the January MMS Newsletter for complete details.

### *Vendor Announcements:*

*If you are a local vendor with information to share, please contact either Jason Heffelfinger ([jason.r.heffelfinger@medtronic.com](mailto:jason.r.heffelfinger@medtronic.com)) or Kathy Hough ([katiu@frontiernet.net](mailto:katiu@frontiernet.net)) for deadline and content guidelines.*



### Upcoming Events

**February 18<sup>th</sup>**

Boston Scientific (former Guidant in Arden Hills) Tour

**March 18**

MinnTS, Medtronic

**May 7<sup>th</sup>**

MMS Spring Symposium, Science Museum



## Sustaining Members

Sustaining members 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. We greatly appreciate the continued support of these individuals and corporations. To become a Sustaining Member, complete and return the MMS membership form at the end of the newsletter.

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If any Sustaining Members are missing from this list, *please* contact either:

Jason Heffelfinger (763-514-1021, [jason.r.heffelfinger@medtronic.com](mailto:jason.r.heffelfinger@medtronic.com))

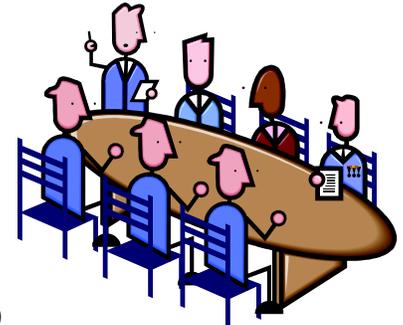
or Kathy Hough (651-353-8458, [katiu@frontiernet.net](mailto:katiu@frontiernet.net)).



## MMS Patron Members

The Minnesota Microscopy Society would like to express sincere thanks to our 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 Member, complete and return the MMS membership form at the end of the newsletter.

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**Reminder:** Membership in MMS runs from January through December. Bede will gladly accept your 2010 dues starting TODAY!

Please visit the MMS website, [www.MNmicroscopy.org](http://www.MNmicroscopy.org), for a fill-and-print pdf version of the membership form...

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**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.

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Affiliation \_\_\_\_\_ Position \_\_\_\_\_

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

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Make checks payable to MMS and mail to our Treasurer:

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