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# Minnesota Microscopy Society

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



## Newsletter

October 2006

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### Minnesota Microscopy Society October Meeting

Thursday, October 12, 2006

#### Visit to SurModics Inc.

##### Location

SurModics, Inc.  
9924 West 74th Street  
Eden Prairie, MN 55344-3523  
(See page 2 for a location map.)

##### Schedule

Arrival at SurModics	4:30 - 5:00 PM
Introduction by K. Wormuth	5:00 - 5:30 PM
Tour	5:30 - 6:30 PM
Dinner at Cam Ranh Bay	7:00 - 8:00 PM

##### Cost of the Meeting

There is no cost for the meeting, talk and tour. Cost of the dinner is the responsibility of those attending.

##### Dinner

For those interested, dinner will be at the Cam Ranh Bay, a Vietnamese restaurant. It is located at 8244 Commonwealth Drive, Eden Prairie, MN 55344-5365. More information can be found at: [www.camranhbayedenprairie.com/index.html](http://www.camranhbayedenprairie.com/index.html). A location map can be found on page 2.

SurModics Inc. supplies coating technology to the medical device industry which improve the ease of use and biocompatibility a wide variety of medical devices. In the process of developing new coatings, surface characterization tools facilitate the assessment of coating smoothness, thickness, uniformity, and durability, which helps to speed up the development process. Klaus Wormuth, Director of Characterization Sciences at SurModics will present an overview of SurModics coating technology along with a description of the microscopy capabilities available, highlighting the application of Raman microscopy to drug eluting coatings. The presentation will be followed by a tour of the Surface Characterization lab.

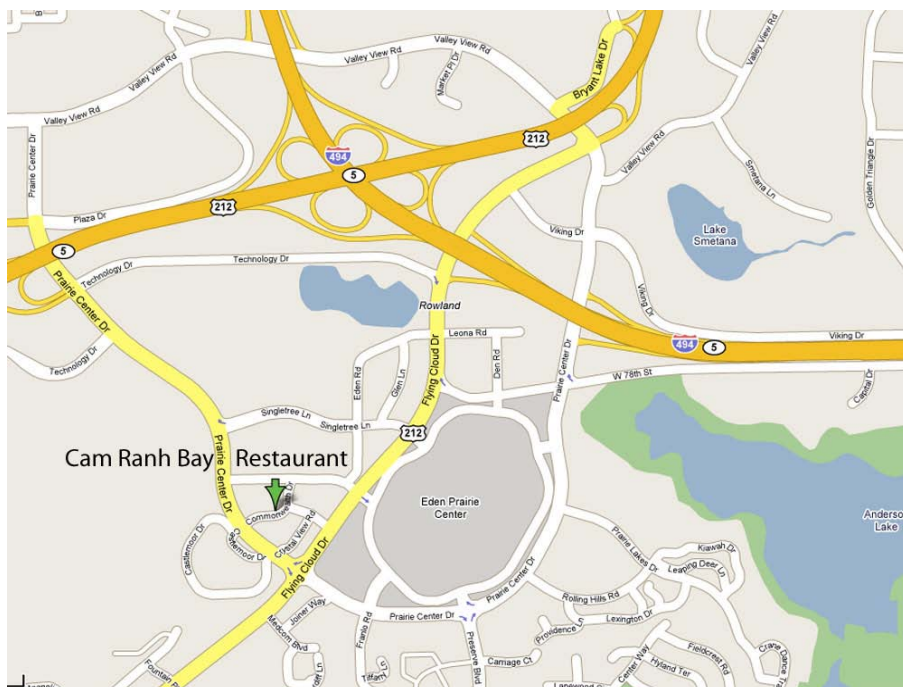
##### Reservations

Reservations for the meeting **MUST** be made no later than **Monday, October 9, 2006.**

Register by e-mailing Jason Heffelfinger at [jason.r.heffelfinger@medtronic.com](mailto:jason.r.heffelfinger@medtronic.com), or by phone at 763-514-1021. Include your name, company, phone number, e-mail address, and whether you will be attending the dinner after the tour.

## Location Maps for the October Meeting

**Location map for SurModics.** The simplest route to SurModics is to follow Hwy 169 to Valley View Road. Follow this west to Washington Avenue. Go south on Washington Avenue to 74th Street, then west on 74th Street 0.2 miles to SurModics (9924 W. 74th Street)



**Location Map For the Cam Ranh Bay Restaurant.**  
8244 Commonwealth Drive,  
Eden Prairie.

**The Minnesota Microscopy Website** <http://www.MNmicroscopy.com> has an improved link to the upgraded membership directory. To access it you will need a username and password. For now we have set up a group access to the database, so you can log in with the username “mms” and the password “camera” There are a few minor upgrades to the layout that are in process, after which you will be able to update your address and description fields online. Until then the database will be read-only. Any feedback on the database (or the website in general) will be most welcome, and should be addressed to Stuart McKernan [smckernan@mmm.com](mailto:smckernan@mmm.com).”

## Future Events

### MMS November Meeting

#### What To Do with a Variable Pressure or Environmental SEM And How To Do It (Or At Least How It Ought To Work)

**Speaker** Brendan J Griffin  
The University of Western Australia

**Date** Thursday, November 9, 2006

**Location** Como Park Conservatory Visitors Ctr.  
For a location map go to:  
[http://www.comozooconservatory.org/como\\_park/map.shtml](http://www.comozooconservatory.org/como_park/map.shtml)

Initial results with variable pressure scanning electron microscopes (VPSEM) can be frustrating, and challenges are faced when investigating new materials. This talk will help overcome some of these rough patches. Brendan taught this as a short course at the M&M 2006 conference in Chicago this past August. This talk will be cover many of the topics included in that short course.

Brendan Griffin is the Director of the Western Australian Centre for Microscopy and Microanalysis and was an original ESEM developer in 1990. He is a leading authority on environmental SEM and has developed a new imaging procedure called charge contrast imaging or CCI. He has developed extensive training programs in SEM, VPSEM, EPMA and digital image processing, and has taught over 1,000 staff and students in basic SEM techniques.

#### Reservations

Reservations for the meeting **MUST** be made no later than **noon on Monday, November 6, 2006**. Register by e-mailing Bede Willenbring at [Bede.Willenbring@hbfuller.com](mailto:Bede.Willenbring@hbfuller.com), or by phone at 651-236-5470. Include your name, company, phone number, and e-mail address.

## EBSD Workshop

### What EBSD Can Do For You

**Sponsors:** Oxford Instruments  
University of Minnesota.

**Dates:** October 25th and 26th

**Locations:** University of Minnesota,

For those of you unfamiliar with EBSD technology, it is a technique that allows crystallographic information to be obtained from samples using a Scanning Electron Microscope. The information can be used for:

- Texture/preferred crystallographic orientation analysis
- Failure analysis, including:
  - Analysis of grain boundary and crystallographic orientation control of crack propagation path
  - Orientation determination of grains at crack initiation site
- Grain size analysis
- Grain boundary characterization
- Strain analysis
- Phase identification by crystallography

#### Schedule:

##### October 25

8:30 - 9:00 Coffee and Donuts  
Amundson Hall, Rm 210

9:00 - 11:30 EBSD Technical Presentation  
by Scott Sitzman  
Amundson Hall, Rm 210

12:00 - 1:00 Lunch Sponsored by Oxford  
CharFac lunchroom, Shepherd Lab

1:00 - 5:00 Samples run on Oxford's EBSD  
CharFac, Shepherd Lab

##### October 26

9:00 - 4:00 Samples run on Oxford's EBSD  
CharFac, Shepherd Lab

The workshop is free, but registration is required by October 20th. Contact Kara Noack (Oxford's Midwest regional Sales Manager) at [noack@ma.oxinst.com](mailto:noack@ma.oxinst.com) to register or for more information.

## 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 Peter McSwiggen (612-781-2282, [PMcS@McSwiggenAssoc.com](mailto:PMcS@McSwiggenAssoc.com)).

## 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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## Minnesota Microscopy Society – Membership Form

All microscopists are urged to support their Society at one of the membership levels offered below. The more dues-paying members we have, the more likely we are to attract sustaining corporate memberships which form the financial backbone of our Society. 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 \_\_\_\_\_

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Indicate the method by which you would like to receive the Newsletter: mail \_\_\_\_\_ e-mail/web \_\_\_\_\_ both \_\_\_\_\_

Student (\$5) \_\_\_\_\_ Basic (\$10-\$24) \_\_\_\_\_ Patron (\$25-\$99) \_\_\_\_\_ Corporate Sustaining (\$100- ) \_\_\_\_\_

Make checks payable to MMS and mail to our Treasurer:

Bede Willenbring, MMS Treasurer, 4763 Decatur Ave. North, New Hope, MN 55428-4402

or pay by credit card by going to the MMS Web site at: [www.MNmicroscopy.org](http://www.MNmicroscopy.org)

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

Are you an MSA member? \_\_\_\_\_ MAS Member? \_\_\_\_\_ Other Professional groups? \_\_\_\_\_

Area of interest: Bioscience \_\_\_\_\_ Materials Science \_\_\_\_\_ Light \_\_\_\_\_ SEM \_\_\_\_\_ TEM \_\_\_\_\_ X-ray \_\_\_\_\_

**Minnesota Microscopy Society**  
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Forwarding and Address  
 Service Requested

**October 12, 2006**

***Visit to SurModics***