
Minnesota Microscopy Society

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



Newsletter

October 2001

MMS November Meeting

Thursday, November 8, 2001

Tour of Medtronic Corporate Research Labs Talk: Chemical Imaging

Medtronic Inc. has a new world headquarters and corporate research facility. The research labs include all of the latest equipment for microscopical, metallurgical, and wet chemical analytical work. This will be the first opportunity for the microscopy community at large to tour these facilities.

Talk: Chemical Imaging: An Emerging New Tool for Molecular Microscopy

Speaker: Patrick J. Treado, ChemIcon Inc.
7301 Penn Avenue
Pittsburgh, PA 15208
412-241-7335; treado@chemimage.com

Schedule of Events:

Arrive around 5:15 PM

5:30 - 6:30 PM **Tour of Medtronic's Labs**

6:30 - 7:30 PM **Dinner**

7:30 - 8:30 PM **Business Meeting and Technical Program**

Abstract

Raman and near infrared (NIR) chemical imaging have been demonstrated to be a powerful tools for microscale analysis of a wide range of materials, including polymers, pharmaceuticals, semiconductors and biomaterials, to name a few. With Raman chemical imaging systems based on microscopes, materials can be analyzed with molecular specificity, without the use of dyes or stains, at submicron spatial resolution (<250 nm). NIR chemical imaging can be performed through refractive microscopes at micron spatial resolution. The molecular information provided by chemical imaging technology complements elemental imaging performed using SEM-EDS technology. In this presentation, the current state of chemical imaging technology will be assessed, including both hardware and data treatment strategies. Comparisons will be made between molecular and elemental imaging approaches. In addition, specific examples from a diverse array of microscopy studies will be presented.

Dinner:

Dinner will be at Medtronic's corporate headquarters. The menu will include an Italian buffet of linguini alfredo, chicken marsala, herb roasted potatoes, fresh steamed vegetables, caesar and tossed salads, and mini Italian pastries. The cost will be \$20.00 for members and \$5.00 for students.

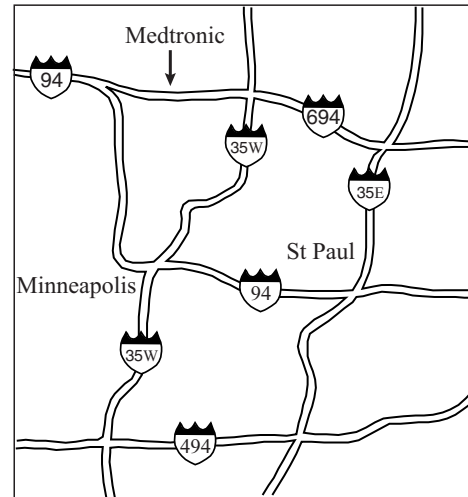
To make reservations, contact Mike Coscio at 763-505-4561 or mike.coscio@medtronic.com by **Friday, November 2, 2001**.

Parking is available (free) in the ramp just outside the door of the research facility. See page 2 for location map and directions.

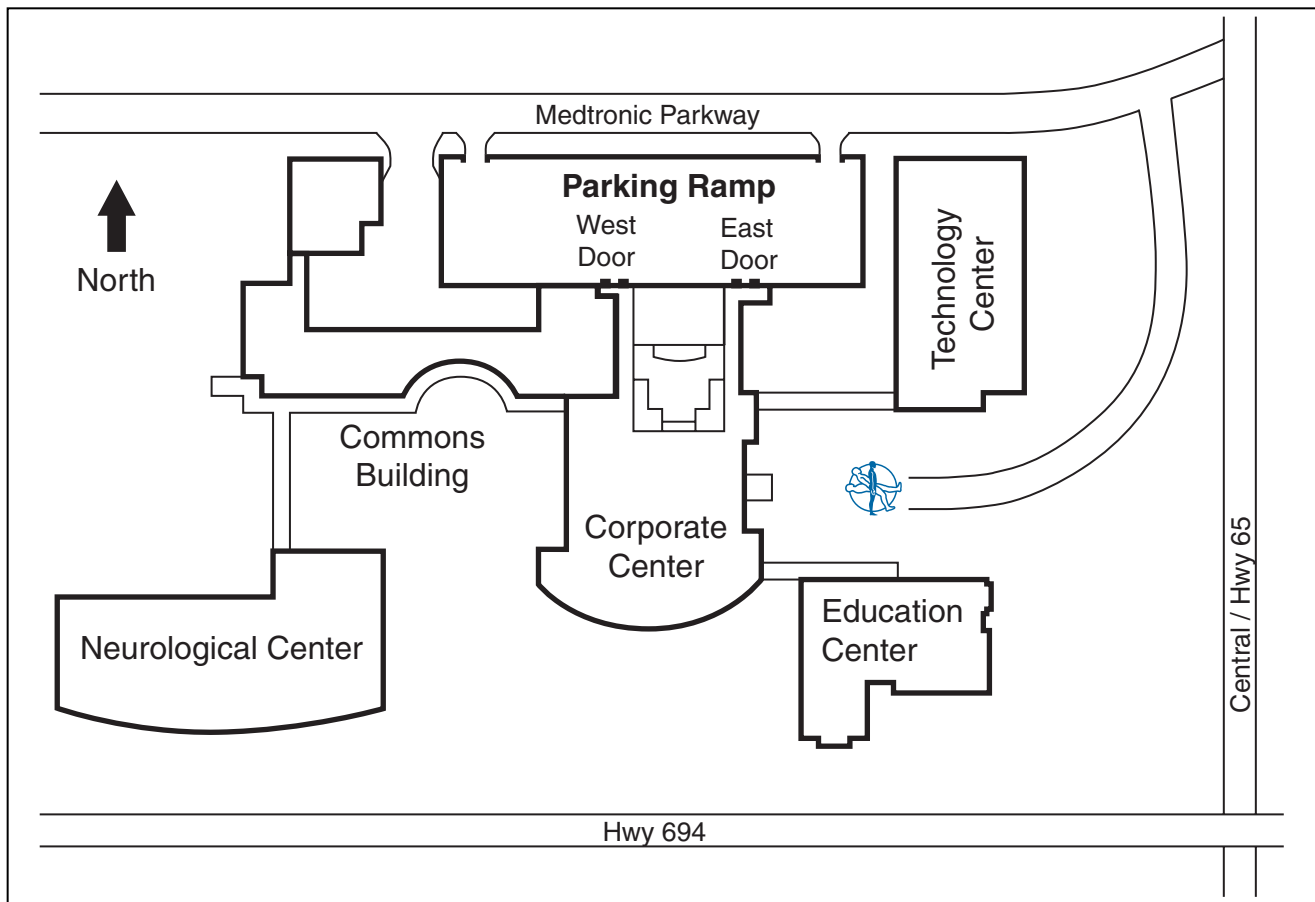
(Continued on page 2)

Biography

Patrick J. Treado, Ph.D. is Founder and President of ChemIcon Inc., a manufacturer of chemical imaging instruments and software. Dr. Treado is an analytical spectroscopist (B.S., Georgetown University; Ph.D., University of Michigan) and has years of experience in the chemical imaging field. Dr. Treado's research interests involve the development of IR, Raman and fluorescence chemical imaging and their application to materials analysis, clinical diagnostics and process monitoring. Dr. Treado is the recipient of several prestigious awards, including the 1998 Coblenz Award and more recently, an R&D 100 Award for ChemIcon's FALCON Raman Chemical Imaging Microscope.



Location maps for Medtronic's Corporate Headquarters at 710 Medtronic Parkway, Fridley, MN. Parking is available free in the parking ramp shown on the map below. Enter the Corporate Center through the **east door**.



Upcoming MMS Meetings - Continued

February 7 - Thursday

Speaker: Karen Runon
Minneapolis Police Department
Forgery Unit

March 27 - Wednesday

MMS Joint Meeting with ASM

Talk: Color Metallography

Speaker: George F. Vander Voort
Director of Research and Technology
for Beuhler Ltd.

Location: Sheraton Four Points
(on 35W, north and east of downtown
Minneapolis.)

New MMS Web Site

The Minnesota Microscopy Society has a new Web site. It is now "www.MNmicroscopy.org". The actual physical location of the Web site has not changed. It is still being maintained on one of the computers at the IT Characterization Facility at the University of Minnesota. However, the name will now be easier to remember when surfing the net to look for the latest MMS Newsletter.

May 3 - Friday

MMS Spring Symposium

Topic: Nanotechnology

Location: Science Museum of Minnesota

Again this year the Minnesota Microscopy Society will be putting on a full day of talks for our Spring Symposium. The focus will be on the dynamic new world of nanotechnology. We plan to have a wide range of speakers. If you know someone you would like to hear, or who would be of interest to others, let us know.

June Meeting

(formerly the April meeting)

Tour of the Mayo Clinic

Joint meeting with the Iowa Microscopy Society

Suggested Afternoon Program:

- > Tour of the Mayo Clinic, including the public tour and a tour of the microscopy facilities.
- > Talk by Ken Moore, Iowa
Stem Cell Research and Gene Therapy
- > Social Hour
- > Dinner
- > After dinner speaker

Sustaining Corporate 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: Diana Kittleson (651-917-5859, dkittleson@pillsbury.com) or Peter McSwiggen (612- 624-7370, mcswi001@umn.edu)

MMS Patron Members

The Minnesota Microscopy Society would like to express our thanks to our Patron Members. These members provide financial support to the organization above the standard membership fee. This type of continued 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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Newsletter Editor: Peter McSwiggen, University of Minnesota, Dept. of Geology & Geophysics, Minneapolis, MN 55455; (612) 624-7370, mcswi001@umn.edu

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Jeff Payne, 3M Center, Bldg. 201-1E-16, St. Paul, MN 55144; (651) 733-2352, jjpayne@mmm.com

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Sue Okerstrom, Medtronic Inc., 7000 Central Ave. NE., Minneapolis MN 55432; (763) 514-4678, sue.okerstrom@medtronic.com

Corporate Liaison: Diana Kittleson, Pillsbury Technology East, 737 Pelham Blvd., St. Paul, MN, (651) 917-5859, dkittleson@pillsbury.com

Paul Baker, Medtronic Inc. 7000 Central Ave. NE., Minneapolis MN 55432; (763) 514-4519, paul.baker@medtronic.com

Webmaster: Stuart McKernan, IT Characterization Facility, University of Minnesota, Minneapolis, MN, 55455; (612) 624-6009, FAX (612) 626-7530, stuartm@umn.edu

Ann Palmer
ann.t.palmer-1@umn.edu

Your MMS Annual Membership fee is due in September/October!

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 _____

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

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

Area of interest: Bioscience _____ Materials Science _____ SEM _____ TEM _____ X-ray _____

Membership level: Basic \$10 _____ Patron \geq \$25 _____ Corporate Sustaining \$100 _____ Student \$5 _____**Make checks payable to MMS and mail to our treasurer:****Dwight Erickson, MMS Treasurer, 3M Center, Bldg. 251-1A-03, Saint Paul, MN 55144-1000.**

Minnesota Microscopy Society
Peter McSwiggen, MMS Editor
University of Minnesota
310 Pillsbury Drive, SE,
Minneapolis, MN 55455

November 8, 2001:**Tour of Medtronic's Corporate
Research Labs,
Talk: Chemical Imaging**Forwarding and Address
Correction Requested