## Minnesota Microscopy Society

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

Newsletter

December 2004



### **Minnesota Microscopy Society January Meeting**

Thursday, January 27, 2005

### Tour of Minnesota's Bureau of Criminal Apprehension

The Minnesota Microscopy Society has been invited to tour the new facilities of the Bureau of Criminal Apprehension (BCA). This will be an afternoon event which will be limited to only 50 people. Make your reservation soon. Also you must be over 18 years old to attend this meeting. After the tour, those interested will be getting together for dinner at a Chinese restaurant, the Great Moon Buffet.

### **Tour Location**

BCA Lab at 1430 Maryland Ave. E. in St. Paul (see map)

### **Schedule**

Tour 2:00 PM - 4:00 PM Dinner 5:00 PM



Location map for the BCA.

### **Dinner**

Great Moon Buffet 2950 White Bear Ave. N., St. Paul

### Reservations

Reservations for the meeting MUST be made no later than **Monday, January 24th**. Contact Dwight Erickson (651-736-2830 or dderickson3@mmm.com). Include your name and affiliation, and whether you plan to attend the dinner.



Location of Great Moon Buffet restaurant.

To get to the Great Moon Buffet from the BCA, go east on Maryland Ave to White Bear Ave. Turn north and go about 3 miles to the intersection of White Bear and Beam Avenues. A Red Lobster is on the NW corner of the intersection, and the Great Moon Buffet is on the north end of a strip mall at the NE corner of this intersection.

MMS Newsletter December 2004 Page 2

### Minnesota Microscopy Society February Meeting

Thursday, February 17, 2005

### The Visible Heart®

#### Speaker Dr. Paul Iaizzo

Professor of Surgery and Physiology Distinguished University Teaching Professor Medtronic Professor of Visible Heart Research Director for Education of the Lillehei Heart Inst. Director of the Malignant Hyperthermia Muscle **Biopsy Center** 

University of Minnesota

### **Tour Location**

Earl Brown Continuing Education Center, Rm 83 University of Minnesota, 1890 Buford Ave. St. Paul campus (see location map)

#### Schedule

Social Hour	5:00 PM - 6:00 PM
Dinner	6:00 PM - 7:30 PM
Talk	7:30 PM - 8:30 PM

### Dinner

Dinner will be at the Earl Brown Center. The menu has not yet been finalized.

#### Cost

Yet to be determined. For updates, check the MMS Web site at www.MNmicroscopy.org.

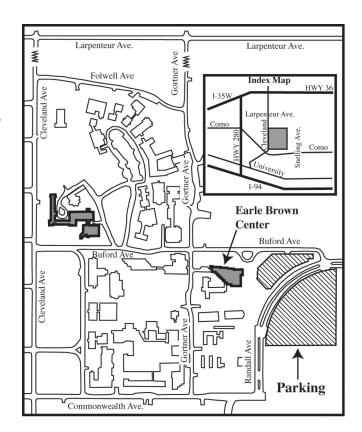
### Reservations

Reservations for the meeting MUST be made no later than Friday, February 11th. Contact Paul Baker (763-514-4519, paul.baker@medtronic.com).

> Location map for the Earl Brown Center at the University of Minnesota.

#### Talk

Paul A. Iaizzo, Ph.D., Professor of Surgery Physiology, worked in partnership with biomedical engineers at Medtronic Inc., to produce a large mammalian isolated beating heart. This ongoing research collaboration has resulted in a working four chamber isolated cardiac model that can simulate in situ physiological cardiac function. This beating heart model has provided an opportunity to simultaneously capture internal images of a working heart on video while recording various physiological parameters, such as: electrical potentials, pressure volume changes, ejection fractions, flows, etc. The Visible Heart® model is considered an invaluable tool in understanding the relationship between the dynamics of a beating heart and existing and emerging biomedical therapies.



### **Future Meetings**

### Annual Minnesota Joint Technical Symposium (MinnTS 2005)

Thursday, March 17, 2005

### Location

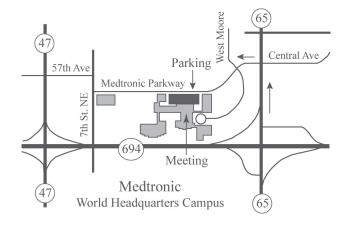
Medtronic Inc. 710 Medtronic Parkway (I-694 & Hwy 65) Fridley, MN 55432

### **Cost of the Meeting** Yet to be determined

### **Schedule**

Registration & Social Hour 4:30 PM - 5:30 PM
Dinner 5:30 PM - 6:50 PM
Talks 6:50 PM

Come to Medtronic for MinnTS '05, the 3rd annual joint meeting of local technical societies. This year the topic is Biomaterials and Biotechnology. Featured speakers are Arthur J. Coury from Genzyme Corporation, speaking on Advanced Materials for Regenerative Medicine, and Vincent Chow from Optobionics speaking on Artificial Retina Technology. Watch for more details in upcoming newsletters. Mark your calendar now for this great opportunity to mingle with technical professionals from outside your microworld!



# Annual MMS Spring Symposium "Cutting Edge Technologies in Microscopy"

Friday, May 6, 2005

#### Location

Science Museum of Minnesota 120 W. Kellogg Blvd., St. Paul Discovery Hall (www.sci.mus.mn.us)

### Cost of the Meeting Yet to be determined

**Schedule** To be announced

As always the Minnesota Microscopy Society's big event is our day-long Spring Symposium. This year we already have an impressive program lined-up. The speakers will include:

- Tom Isabell, JEOL USA
   Topic: Aberration corrected electron microscopes
- Paul Voyles, University of Wisconsin Topic: STEM imaging of single atoms
- Darrel Krueger, University of St. Thomas Topic: Confocal laser scanning microscopes and the ESEM
- Scott and Amy Chumbley, Iowa State University Topic: The WebSEM (*Description follows*)

The WebSEM is a scanning electron microscope (SEM) connected to the Internet allowing educators from around the world to log-in and use the microscope live in the classroom. The students can control the magnification, move and focus the specimen, and collect elemental data to determine the composition of the specimen. When desired, images can be saved to the classroom computer for further viewing. This is a free service to all educators and available worldwide. The Chumbley's talk will include a demonstration that will be open to the public at the Science Museum.

### **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.

Foundation for Advances in Medicine & Sci.	201-818-1010
Mager Scientific, Inc.	734-426-3885
Medtronic Inc.	763-505-4561
Engel Metallurgical Ltd.	320-253-7968
Materials Evaluation & Engineering Inc.	763-449-8870
Thermo Electron Corporation	608-835-0816
North Central Instruments, Inc. / Leica	612-559-3008
PGT	708-386-9684
HITACHI High Technologies America, Inc	847-273-4359
McSwiggen & Associates	612-781-2282
JEOL USA, Inc.	920-803-8945
Oxford Instruments USA	859-384-9861
FEI Company	860-673-8412
Ted Pella, Inc.	800-237-3526
Aspen Research Corp.	800-811-3037
Fryer Company, Inc.	952-942-6747
Crane Engineering and Forensic Services	763-557-9090
Gatan Inc.	888-778-7933
EDAX / TSL	801-495-2750
IXRF Systems, Inc.	281-286-6485
	Mager Scientific, Inc. Medtronic Inc. Engel Metallurgical Ltd. Materials Evaluation & Engineering Inc. Thermo Electron Corporation North Central Instruments, Inc. / Leica PGT HITACHI High Technologies America, Inc McSwiggen & Associates JEOL USA, Inc. Oxford Instruments USA FEI Company Ted Pella, Inc. Aspen Research Corp. Fryer Company, Inc. Crane Engineering and Forensic Services Gatan Inc. EDAX / TSL

If any Sustaining Members are missing from this list, *please* contact either: Jason Heffelfinger (763-514-1021, jason.r.heffelfinger@medtronic.com) or Peter McSwiggen (612-781-2282, PMcS@McSwiggenAssoc.com).

### **MMS Patron Members**

Stuart McKernan.

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 type of added 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.

Ronald Adkins. 3M Company, St. Paul Gib Ahlstrand, University of Minnesota, Mpls Surmodics, Eden Prairie Tony Anderson, Paul Baker, Medtronic Inc., Minneapolis Mary Buckett, 3M Company, St. Paul Barry Carter, University of Minnesota, Mpls Kevin Cowden, ev3 Inc., Plymouth Ellery Frahm, University of Minnesota, Mpls Chris Frethem, University of Minnesota, Mpls Greg Haugstad, University of Minnesota, Mpls 3M Company, St. Paul Elizabeth Henrikson, Duane Krueger, University of St. Thomas, St. Paul Lori LaVanier, Evans PHI, Chanhassen

University of Minnesota, Mpls

Devora Molitor, 3M Company, St. Paul Susan Okerstrom, Medtronic Inc., Brooklyn Center Ev Osten, 3M Company, St. Paul Ann Palmer, University of Minnesota, Mpls Jeff Payne, 3M Company, St. Paul Christina Pierce, Surmodics, Eden Prairie Dan Schaub, FEI Company, Oronoco Gary Smith, Innovatech Labs, Chanhassen Mary Swierczek, 3M Company, St. Paul Jerry Tangen, JEOL USA, Inc., Monticello Carol Wells, University of Minnesota, Mpls Bede Willenbring. H.B. Fuller Co., St. Paul Klaus Wormuth, Surmodics, Eden Prairie Neal Zimmermann, Seagate Technology, Prior Lake

### MMS BOARD and OFFICERS 2004-2005

President: Dwight Erickson, 3M Center, Bldg. 251-1A-03, St. Paul, MN, 55144; (651) 736-2830, dderickson3@mmm.com

**Past-President:** Ann Palmer, University of Minnesota Dept. of Pediatrics, MMC 491, 420 Delaware St., Mpls., MN, 55455; (612) 626-3708, palme003@umn.edu

**President-Elect:** Jason Heffelfinger, Medtronic Inc., 6700 Shingle Creek Parkway, Brooklyn Center, MN 55350; (763) 514-1021; jason.r.heffelfinger@medtronic.com

**Secretary:** Robert Lundquist, Boston Scientific, One SciMed Place, Maple Grove, MN 55442; (763) 494-7945; robltt@juno.com

**Treasurer:** Bede Willenbring, H.B. Fuller Co., St. Paul, MN; (651) 236-5470, Bede.Willenbring@HBFuller.com

Corporate Liaison: Jason Heffelfinger, Medtronic Inc., 6700 Shingle Creek Parkway, Brooklyn Center, MN 55350; (763) 514-1021; jason.r.heffelfinger@medtronic.com

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

Newsletter Editor: Peter McSwiggen, McSwiggen & Associates, 2855 Anthony Lane S., Suite B1, St. Anthony, MN, 55418; (612) 781-2282, PMcS@McSwiggenAssoc.com Copy Editing: Barbara Meier MAS Representative: Michael Coscio, Medtronic Inc., 710 Medtronic Parkway, Minneapolis, MN 55432-5604; (763) 505-4561; mike.coscio@medtronic.com

### **Other Board Members:**

Ev Osten, 3M Center, St. Paul, MN; (651) 736-0104, efosten@mmm.com

Jeff Payne, 3M Center, St. Paul, MN; (651) 733-2352, jjpayne@mmm.com

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

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

Jacque Aguilera, 3M Center, St. Paul, MN; (651) 737-4275; jmaguilera@mmm.com

Steve Block, JEOL USA, Inc., s-block@attbi.com

Adam Dickson, Cymbet Corp., Elk River, MN adickson@cymbet.com

### 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	_ DrMrMsPhone ()	
Affiliation	Position	
Address	ZIP	
E-mail address		
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 ou	r Treasurer:	
Bede Willenbring, MMS Treasurer, 4763 Decatur Ave. North, New Hope, MN 55428-4402		
Check here if you do NOT want your name and add	ress to appear in the Society directory.	
Are you an MSA member? MAS Member? C	ther Professional groups?	
Area of interest: Bioscience Materials Science	Light SEM TEM X-ray	
Per MMS bylaws, article VIII: "For purposes of membership  Dues shall be payable	The Society's year shall run from October 1 to September 30. between October 1 and December 31st of each year."	

### **Minnesota Microscopy Society**

Peter McSwiggen, MMS Editor McSwiggen & Associates 2855 Anthony Lane South, Ste B1 St. Anthony, MN 55418

Forwarding and Address Correction Requested **January 27, 2005** 

Tour of the BCA