



The MMS Scope

Minnesota Microscopy Society

Local affiliate of the **Microscopy Society of America**
and the **Microanalysis Society**

January 2017

In this Issue:

Inside 3D printing:

Stratasys mfg. director Alissa Wild will give a presentation on Stratasys' 3D printing and additive solutions and a tour of their sample and demo room. Mark your calendar today and register by Feb 8.

Up ahead:

MinnTS on March 16 (at Ecolab this year) and Spring Symposium on May 5. Save the dates on your calendar now and plan to participate.

2017 MMS dues:

Please remember to submit your annual dues to maintain your MMS membership.

Thank you, volunteers!

A big thank you to all who gave their time to *Microscope Day*, Apple Valley H.S. and the *Math & Science Family Fun Fair*.

Call for volunteers

More volunteer opps in the next two months at Twin Cities schools (and a theater!).

February 16
2017



stratasys®

State of the Art Additive Manufacturing: Overview of Stratasys Two Core Technologies



Alissa Wild

Manufacturing
Aids and
Tooling
Director



SCHEDULE on FEB 16

5:00 – 5:10 p.m. Arrive
5:10 – 5:30 p.m. Presentation
5:30 – 6:00 p.m. Tour of sample
+ demo room
6:10 p.m. Depart



LOCATION

**Stratasys NA
Headquarters Bldg.**
9600 West 76th St.,
Eden Prairie, MN 55344
[Google map](#)



RESERVATIONS

Registration deadline: **Wed., Feb. 15**
First come, first served. 30 attendee maximum
Register at Reservations@MnMicroscopy.org
and *please indicate whether you expect to stay for dinner.*



DINNER

Dinner at Old Chicago in Eden Prairie for any tour-goers who would like to dine after the event.



[12300 Singletree Lane, Ste 100](#)



CALENDAR of EVENTS

16 MAR 2017

15th Annual MinnTS (Minnesota Technical Symposium)

[Ecolab Schuman Campus](#) // Innovation Center (**new location!**)

655 Lone Oak Dr.

Eagan, Minn. 55121

Topic: Virtual Reality/Augmented Reality

Speakers: tbd



5 MAY 2017

MMS Spring Symposium

Minnesota Science Museum

120 W. Kellogg Blvd.

St. Paul, Minn.

Speakers:

- ❖ **Sara Miller, Duke University**
- ❖ **Robert Simmons, Georgia State University**
- ❖ **Tony Erickson, Ecolab**
- ❖ **Lucille Giannuzzi, L.A. Giannuzzi & Associates, LLC**



DON'T FORGET!



Please remember to pay your 2017 MMS membership dues.



THANK YOU



Project MICRO

Thank you, Project MICRO Volunteers!

Project MICRO participated in three events in November. Thank you to all who volunteered to help inspire the next generation of microscopists. Your tireless dedication and enthusiasm is greatly appreciated.

On **Saturday, November 5th**, we partnered with the Science Museum for our eighth year of *Microscope Day*. More than 125 museum visitors were enthralled with our six microscope activities, spread throughout the museum. Sixteen MMS volunteers helped: **Jeff Payne, Ann Palmer, Muriel & Burton Gavin, Mark & Rowan Sanders, David & Mara Burleson, Pat Erickson, Jacob Held, Tom Fielitz, Alyssa McKenna, Chris Frethem, Eric & Mia Morrison, and Lily Sullivan.**

A special thank you goes to **Jeff Payne** for bringing all our equipment, **Mark Sanders** for demonstrating a fluorescent microscope from the U of M Imaging Center, **Ann Palmer** for organizing this event, and **Muriel Gavin** for taking photos (next page).

On **Monday, November 14th**, we participated in the *Apple Valley High School Family STEM Night*. Four volunteers helped: **Gib Ahlstrand, Alice Ressler, Muriel Gavin** and **Jeff Payne**. These dedicated volunteers gave an evening of their time to teach young families microscopy.

On **Saturday, November 19th**, five volunteers presented at the *University of Minnesota Math and Science Family Fun Fair*: **Peter Yurek, Gib Ahlstrand, Steve Axdal, Jacob Held** and **Jeff Payne**. (See photos by Jeff Payne on p. 6.) The volunteers served more than 100 visitors in six hours!

THANK
YOU!



PROJECT MICRO PHOTO ALBUM



"Fingerprints" activity with **Chris Frethem**.



"Everyday Cool Stuff" activity with **David Burleson and Jacob Held**.



PROJECT MICRO PHOTOS - 2



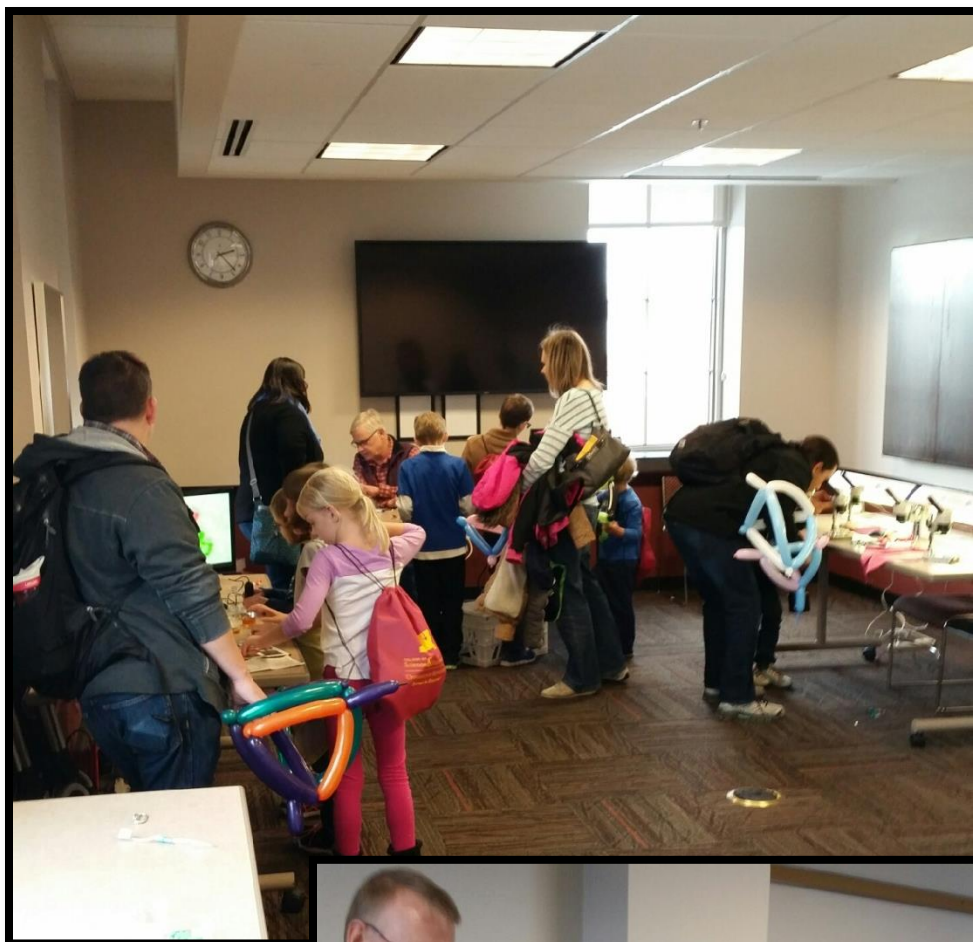
“Lights! Camera! Microscope!” activity with **Burton Gavin**.



“Lights! Camera! Microscope!” activity with **Mark and Rowan Sanders**, demonstrating a U of MN – Imaging Center fluorescent microscope.



PROJECT MICRO PHOTOS - 3



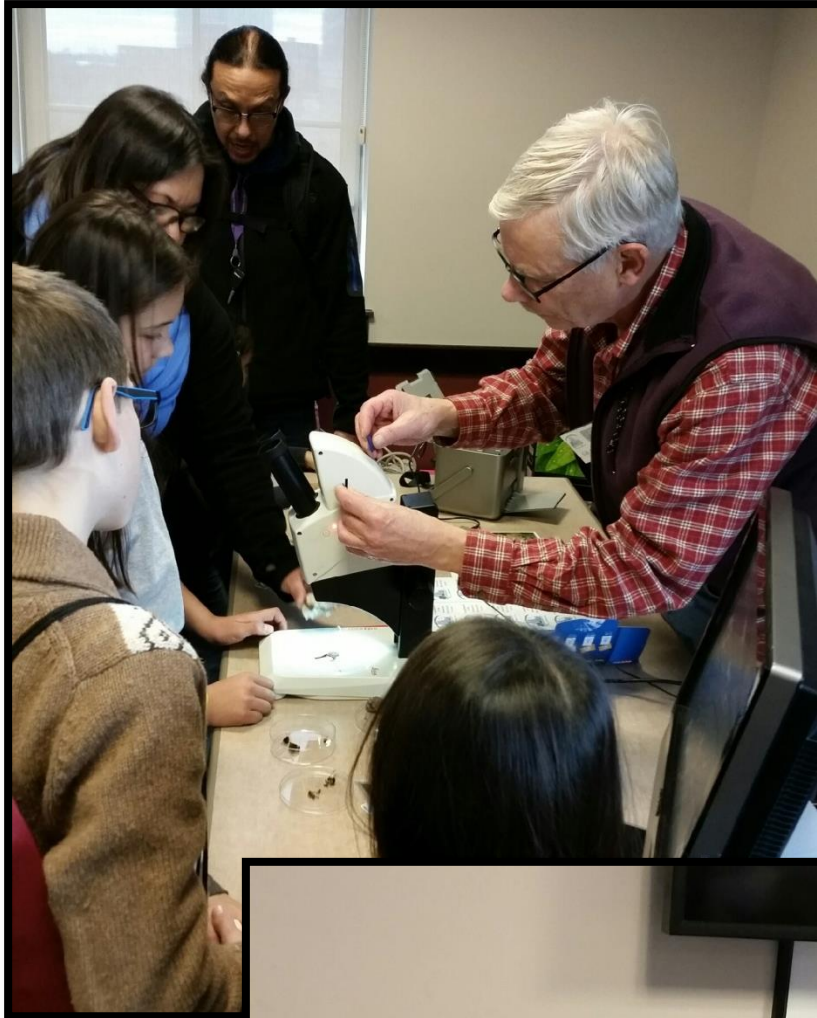
The Project MICRO room of activities.

Steven Axdal and **Jacob Held** assisting visitors with our kid-friendly microscopes.

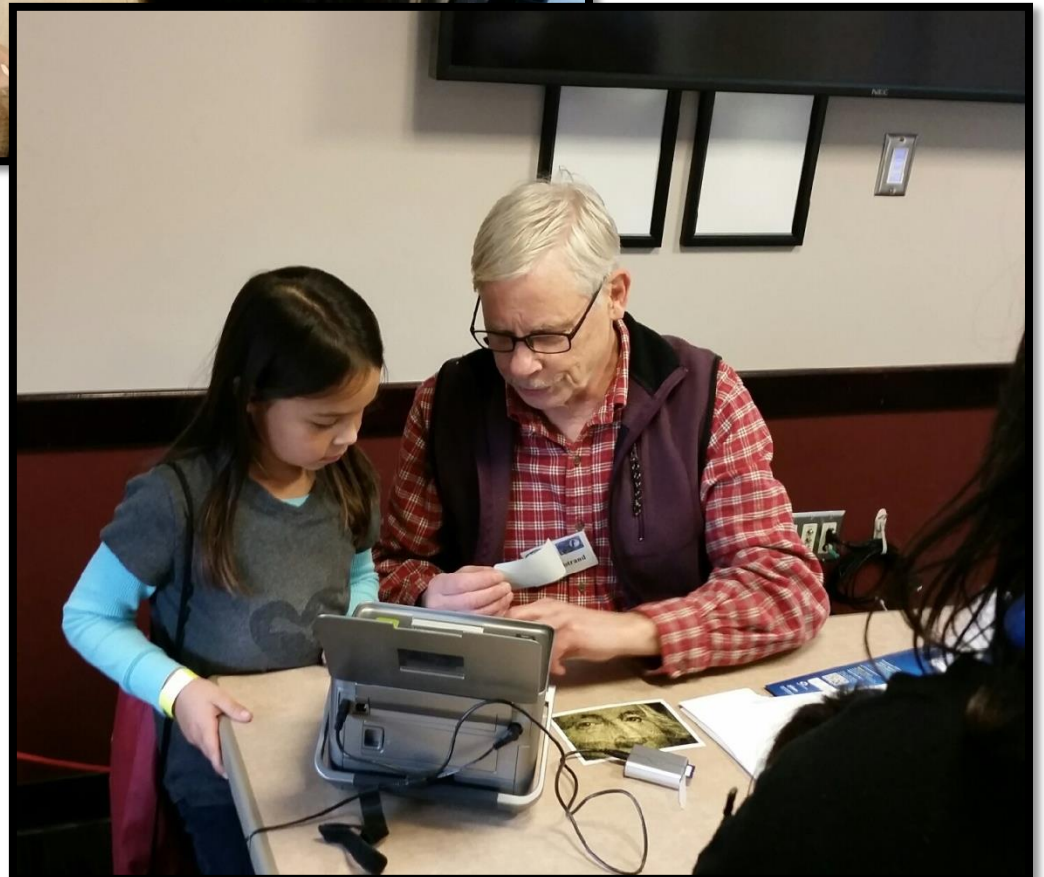




PROJECT MICRO PHOTOS - 4



Gib Ahlstrand
teaching visitors
how to use and
take images with
our Leica
stereomicroscope.



Gib Ahlstrand
showing an
enchanted visitor
how to print her
image to take home.



CALL FOR VOLUNTEERS

WE NEED YOU!

We are participating in several events in late January through February and we need many volunteers to help! No experience necessary; training on site. Please contact **Jeff Payne** (jjpayne@mmm.com) to volunteer for any or all of these events.

(More events on p. 10.)

1

Event: *EXPO Elementary School STEM Night*
Location: EXPO Elementary School, 540 Warwick Street, St. Paul
Date: Thursday, January 26, 2017
Time: 5:00 to 7:30 pm

MMS is teaming up with **Z Puppets Rosenchnoz** theater group for a new dazzling glow-in-the-dark black-light puppetry performance with live a cappella music called *Cellula*, performed In The Heart of the Beast Theater in South Minneapolis. This 50-minute show is "the story of mitosis through the lens of mother and child." Jeff Payne and Ann Palmer witnessed a rehearsal of one of the scenes and it was quite extraordinary. As part of each performance, MMS will provide microscope activities before and after each show on the weekends of **January 27-29** and **February 3-5** in a Microscope Fun Gallery. MMS Volunteers need to be present at least 90 minutes prior to each performance and the "after session" should be limited to 30 minutes. We hope to run 4-5 stations, so we need LOTS of help!!!

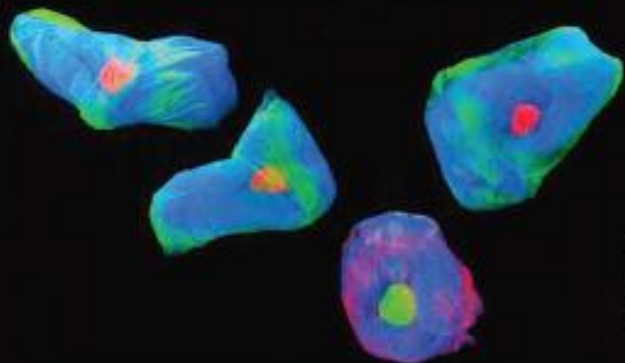


You will get to see the performance of *Cellula* for free by volunteering (a \$15 value). Visit www.zpuppets.org/cellula-2 for more information and a sneak video preview of *Cellula*. Come volunteer for this unique experience!

To buy tickets, visit: <http://www.brownpapertickets.com/event/2592121>
 Use the PROMO CODE: STEM for \$3 off adult admission with the purchase of a child ticket. See the following page for a promotional flyer.

2

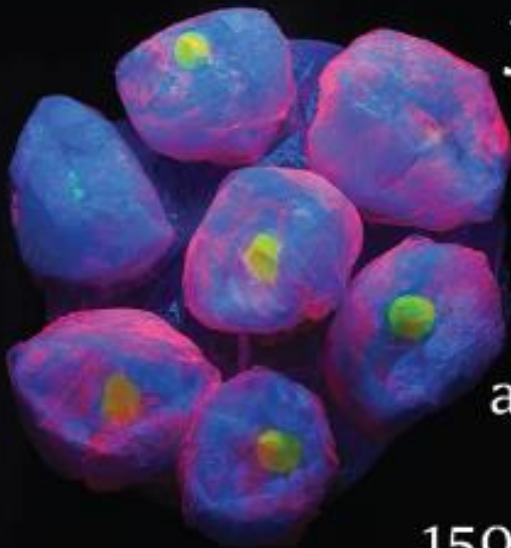
Event: *Cellula by Z Puppets Rosenchnoz*
Location: In the Heart of the Beast Puppet & Mask Theater,
 1500 East Lake St., Minneapolis
Date: Fridays, Jan 27 and Feb 3 – 7:00 pm performances
 Saturdays, Jan 28 and Feb 4 – 7:00 pm performances
 Sundays, Jan 29 and Feb 5 – 2:00 pm performances



Z PUPPETS
ROSENSCHNOZ

Cellula

A glow-in-the-dark
performance of mitosis by
Z Puppets Rosenschnoz
with music by **Libby Turner**
and **Mankwe Ndos**,
directed by **Kurt Hunter**



January 27 - February 5, 2017

Fridays at 7 pm

Saturdays at 2 pm & 7 pm

Sundays at 2 pm

at In the Heart of the Beast
Puppet & Mask Theatre
1500 E Lake Street, Minneapolis

Tickets: \$15 Adults, \$8 Children
available at brownpapertickets.com



CALL FOR VOLUNTEERS - 2

3

Event: *Poplar Bridge Elementary STEAM Night*

Location: Poplar Bridge Elementary, 8401 Palmer Road, Bloomington

Date: Friday, February 10, 2017

Time: tba (probably 5:30 to 7:30 pm)

4

Event: *Echo Park Elementary Engineering Night*

Location: Echo Park Elementary, 14100 County Road 11, Burnsville

Date: Friday, February 24, 2017

Time: 6:00 to 7:30 pm

**FISCAL REVIEW**

Minnesota Microscopy Society Treasurer's Report 01/01/16 Through 12/31/16

INCOME	
Dues	4,195.00
Interest Income	13.66
Meeting Registrations:	3,822.62
Spring Symposium Income	5,165.00
TOTAL INCOME	13,196.28
EXPENSES	
PayPal Credit Card Fees	213.26
Insurance	304.64
Meeting Expenses:	
MMS Regular Meeting Expenses	556.80
MinnTS Meeting Expenses	3,472.72
Total Meeting Expenses	4,029.52
Miscellaneous	244.49
Newsletter	630.00
Project Micro	88.56
Spring Symposium Expense	4,452.15
TOTAL EXPENSES	9,962.62
OVERALL TOTAL	<u>3,233.66</u>



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 2016-2017. To become a Corporate Sponsor, complete and return the MMS membership form at the end of the newsletter.

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



MMS SUSTAINING & PATRON MEMBERS

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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Jason Myers	CharFac, Univ of Minn., Mpls		

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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> and use the PayPal link at the bottom.

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 (\geq \$100)

Payment: Check PayPal (Please make your payment via PayPal at

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