

NYMS



NEWS

THE NEW YORK MICROSCOPICAL SOCIETY

15 West 77th Street
New York, New York 10024

1244 McBride Ave.
West Paterson, New Jersey 07424

(203) 316-0877 phone/fax

**Intravital Imaging of Cell Motility and Behavior
in Breast Tumors:**
New Imaging Modalities Reveal the Secret of the Primary Tumor

John Condeelis, Ph.D.
Scientific Director, Analytical Imaging Facility
Albert Einstein College of Medicine

Thursday, 7:30 p.m., January 27, 2000
Kaufmann Theater -- American Museum of Natural History
Central Park West and 79th Street

Dr. John Condeelis is Professor of Anatomy and Structural Biology at Albert Einstein College of Medicine, as well as the Scientific Director of the College's Analytical Imaging Facility. He will speak of cutting edge microscopy in a field where research is making great progress.

This is our annual joint meeting with the New York Society of Experimental Microscopists. For several years now, NYSEM and NYSM have co-sponsored impressive meetings. We are keeping up this tradition.

What's inside

President's report -- Winter Party reviewed -- **PHOTOS!** -- Discussion about NYMS and Teachers
Member news -- **DUES ARE DUE!** -- EAS call for papers -- Toy microscopes revisited
Limerick -- **April PLM Course Registration**

Next meeting: Thursday, February 24, at Fashion Institute of Technology, NYC
(Joint meeting with N.Y. Regional Association of Art Conservators)

HAPPY NEW YEAR !!!



New York Microscopical Society Board of Managers

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Stamford, CT 06902
Term expires June 2002

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<http://www.nyms.org>

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PRESIDENT'S MESSAGE

John A. Reffner, Ph.D.

Evergreens

In November, questions were raised about our uncertain future at the West Paterson facility. Since then, we have an interesting proposal from the Montclair Historical Society (MHS), in New Jersey. **Majda Kallab Whitaker**, a new NYMS member and a trustee of the MHS, has been very helpful in developing this proposal.

The Montclair Historical Society has proposed that NYMS occupy rooms in Evergreens, in Montclair, N.J., which is listed on the National Register of Historic Places as the Charles S. Schultz House. It was the home of a former NYMS member.

Charles S. Schultz was president of NYMS in 1894-95 and served as treasurer for several years earlier. He was a successful banker and an enthusiastic scientist. He built Evergreens in 1896. The house is a beautiful old mansion designed by Michel LeBrun, a famous architect of the time. LeBrun was a friend of Schultz, and LeBrun's wife joined NYMS. After three generations, Evergreens was given to the MHS, which is now undertaking its restoration. They have offered to lease space in this historic home to NYMS.

Your Board visited Evergreens last month and found the Schultz home very stimulating. The Evergreens Mansion sets high on a landscaped hill on North Mountain Ave., just a block away from the Montclair Art Museum. The main house is reached by a long serpentine drive (needing some repair). The drive circles to the back of the house and leads to the carriage house. When you step into the house, you step into the splendor of the gay nineties. Much of the first floor has been restored, and MHS plans to complete a full restoration. Schultz's study looks

as if he just left it, complete with library, mineral collection and several scientific instruments. Of course, his large brass microscope is on prominent display.

After visiting Evergreens, the Board voted to explore the MHS proposal and prepare a report to the membership. This is an ongoing Board activity.

The core of the MHS proposal is to rent to NYMS three rooms on the second floor for our office, library, and microscope collection. If we agree, the room housing our microscope collection would become part of MHS scheduled house tours. Together, these three rooms are large enough to meet our immediate needs. In addition, we can use the carriage house for meetings and workshops. The ground floor workrooms can be used for classes. These workrooms have a separate entrance.

The rooms being offered to us are on the second floor of the main part of the house, one on the front right as you face the house and the second just behind on the same side. (The third room is an extension of one of these.) While the house is generally in good condition, MHS is attending to some deferred maintenance. They are repairing the roof and gutters, and will paint the rooms. MHS plans to make Evergreens a historical showplace.

The house is one block away from Bloomfield Avenue, where there is frequent direct bus service to and from the Port Authority Bus Terminal in Manhattan. The Montclair Art Museum is located on Bloomfield Avenue at the same corner.

The link between Charles Schultz and NYMS led the MHS to propose Evergreens as our future home. We are giving this proposal serious consideration. Think of the possibilities.



CHILDREN'S EVENTS



At **"A Drop of Water"** Children's Workshop, held at Evergreens, Oct. 26, 1999, **Marie Keyes** works next some students. (Also present were **Majda Whitaker** and **Don O'Leary**.) *NYMS expects to organize more children's workshops at Evergreens and will announce these in the newsletter.*



At the **"Water Bear Hunt"** in Queens on Nov. 6, 1999, **Deb Hargiss** and **Herb Ohlmeyer** help a participant. (Also present for NYMS were **Spencer Hargiss** and his father, Leonard, and **Jean Portell**. Matthew Bakkom led the 'bear hunt' facilitators from the staff of the New York Hall of Science.)

NOTICE OF AN ALL-AGES DROP-IN WORKSHOP IN QUEENS

WATER BEAR HUNT

Monday, February 21, 2000
(Washington's Birthday Holiday)

No reservations needed. Free with admission to the New York Hall of Science, in Corona Park, Queens, N.Y.

Drop in anytime **between 11 a.m. and 3 p.m.**, and look for the area where tardigrades will be the topic of the day.

This workshop is co-sponsored by the New York Microscopical Society and the New York Hall of Science.

Want to know more?

Call **Jean Portell** (718-643-1222) or **Matthew Bakkom** (718-699-0005, ext. 348).



New York Microscopical Society

Polarized Light Microscopy

Bernard Friedman Memorial Workshop

April 8 & 9 and 15 & 16, 2000

An advanced course on polarized light microscopy that will cover these topics:

The origin and interpretation of interference colors

Birefringence and crystal orientation

The indicatrix

Compensation and variable compensators

Interference figures and their interpretation

The workshop will consist of two consecutive weekends of lectures and hands on labs to cover the theoretical and practical aspects of polarized light microscopy. The course instructors include **Jan Hinsch** of Leica, Inc., **John A. Reffner** of Trace Consulting, and N.Y.M.S. instructor **Don O'Leary**.

WHEN: April 8, 9, 15 & 16, 2000 -- from 10 a.m. to 4 p.m.

WHERE: 1244 McBride Avenue, West Paterson, N. J. Phone (973) 812-8377 (Free parking, accessible by public transportation, information on car pools and transportation will be provided.)

COST: \$275 for N.Y.M.S. members, \$295 for non-members (includes membership) Lunch and course materials are included. Make checks out to N.Y.M.S.

WHO: Advanced course, for those who have completed "The Use of the Microscope" or are experienced in microscopy and familiar with the theory of its use.

HOW: Register using the form below. **Limited to the first 12 registrants.** Send form to Don O'Leary, 6 Chittenden Road, Fair Lawn, NJ 07410.

FURTHER INFORMATION: Call D. O'Leary at (201) 797-8849, or John A. Reffner during workdays at (203) 207-9708.

PLEASE POST

REGISTRATION FORM

"Polarized Light Microscopy" Workshop -- April 8,9,15 & 16, 2000

N.Y.M.S. Member _____ (\$275) Non-Member _____ (\$295)

Name _____

Address _____

Phone (W) _____ (H) _____ E-mail _____

PLM WORKSHOP in APRIL

On two weekends in April 2000, (April 8 & 9 and 15 & 16), from 10 a.m. to 4 p.m., a course on polarized light microscopy will be presented at the NYMS classroom at West Paterson, N.J. The four-day course will be taught by **Jan Hinsch** of Leica Inc., **John A. Reffner** of Trace Consulting, and **Don O'Leary**, NYMS Instructor. The cost for members is \$275, and for non-members \$295 (includes membership). Full details are in the enclosed insert/registration form. The topic is popular and space is limited. **ONLY THE FIRST 12 PEOPLE TO REGISTER CAN ATTEND.** Avoid disappointment by registering early. For more information call **Don O'Leary** at (201) 797-8849, or **John Reffner** during the day at (203) 207-9708.

MEMBERSHIP REPORT

Jean Portell

Each January we say "Have a Happy New Year -- and pay up!" Please use the enclosed envelope to take care of your dues quickly. Prompt payment means that more effort is available for productive Society work, because less energy needs to be expended in sending out reminders. (Here's another way to increase the productivity of NYMS. After paying your dues, join an activity. Become involved!)

The dues envelope carries a reminder that the Board likes to hear from all members, not just collect their membership fees. Even if you paid early or are a Life Member, please consider using the handy envelope to forward some news or voice an opinion.

Speaking of opinions, this newsletter contains a discussion among five members about whether NYMS is too diverse in its focus, and whether it should more effectively reach out to science teachers. NYMS NEWS serves

well as an open forum when members constructively "spout off" in its pages. So let's hear many voices on these and other issues.

ADDRESS CHANGES

Two long-time members recently notified us of their relocations, one temporary the other permanent.

Stacy and **Don O'Leary** have headed south for the winter. Via computer and modem, Don (Membership Co-Chair, and Education Chair) will stay in touch with NYMS, updating the membership databank and preparing for the April microscopy workshop in West Paterson. (He will regularly pick up messages that are left on the answering machine of his New Jersey telephone.) Only instead of skiing or shoveling snow on his breaks, he'll be strolling on the beach or playing golf. Until April, here's where he can be reached:

Don O'Leary
11731 Boynton Lane
New Port Ritchey, FL 34654
Tel. (727) 856-5289
Fax. (425) 988-1415

Roberta and **Charles Gellis** have moved from Long Island to Indiana. A recent phone chat with Charles revealed that they picked this location in order to be near family. Although they hired a moving company, Charles said he didn't want to entrust his microscopes to anyone else's care. So last fall he and his wife headed west in a Rent-A-Wreck mini-van, filled with all his instruments plus his wife's cherished houseplants. I asked if he planned to continue his membership in NYMS even though his visits to New York will be infrequent. "Of course," he said. "It's a bargain!" Here is his new address:

Charles Gellis
600 Old Farm Road

Lafayette, IN 47909-3518
Tel. (765) 471-4946

ON TOY MICROSCOPES

A Response

*Ed. note: The November issue carried a letter from **Quentin McCray**, of Corry, Pennsylvania, commenting about the inadequacies of toy microscopes today compared to one he bought before 1940 for \$14.95. His remarks prompted the following response.*

To the Editor

Mr. Q. McCray points out a serious dilemma for the parent of a youth who wants a microscope but cannot get into the higher price ranges. I wonder if the readers of NYMS Newsletter know where you might find a "decent" microscope for, let's say, \$100 - 200. (After all, in the 1930s \$14.95 would have kept a family of four going for a week.)

Dave Bulloch
4154 Keats Drive
Sarasota, FL 34241

CALL FOR PAPERS!

The next **Eastern Analytical Symposium** is scheduled for October 29 to November 3, 2000. For the first time, it will be held in the New Atlantic City Convention Center, Atlantic City, New Jersey.

To submit a contributed paper, send a 200-to-250 word abstract to **EAS by March 31, 2000**. For more information, contact EAS at P. O. Box 633, Montchanin, DE 19710-0633; Tel.: (302) 738-6218; Fax: (302) 738-5275; E-mail: EASINFO@AOL.COM

WINTER PARTY REVIEW

Jean Portell

The Society's two rooms in West Paterson were packed on Sunday, December 5, 1999. Members and their guests ate heartily from large platters of shrimp and other tasty foods.

After dinner we watched while special guest Peter Evennett, Ph.D., demonstrated, using a TV monitor hooked up to a microscope and clever props, how light beams create the images that one perceives through a microscope. With a two-toned string and his head, he explained how a specimen (his head) affects a pair of light waves (the folded string). After describing Abbe's diffraction theory, Dr. Evennett treated the audience to the sensation of traveling with light rays progressing from the back focal plane of the objective to the front focal plane of the eyepiece. As he twisted the knob of the microscope, on the monitor we watched an image of the specimen (a microphotograph of Ernst Abbe's visage) come into focus. It was a heady experience.

The Society is grateful to Dr. Evennett and his wife, Katherine, for detouring to New York to present this demonstration. The Society also thanks Carl Zeiss Inc., especially Edward Mancini and Barbara Hohman, for making a donation to help with the costs.

FOCUS ON LEVITY

The following limerick was composed by **Mel Pollinger**. He challenges others to indulge in a little word play, too, and share their results in the newsletter.

*There was a young lad with a lens,
Who used it for looking at blends,
Of paints, dyes and pigments,
Imaginative figments,
And of items his body would
 cleanse.*

**Weekly Informal Meetings
at
1244 McBride Avenue
West Paterson, N.J. 07424**

Anyone wishing to visit the NYMS site please contact **Mel Pollinger** before 4 p.m. on the day in question. The site is usually open on Thursdays after 8 p.m., but please call to confirm.

Mel Pollinger's home answering
machine: (201) 791-9826
Mel's work no.: (973) 812-8377

After 8 p.m. on Thursdays, you may call the site phone number: (973) 812-8377.

Note: It is also possible to call Mel and arrange visits at other mutually convenient times.

30th YEAR OF LEHIGH MICROSCOPY COURSES

In June 2000, Lehigh University's Department of Materials Science and Engineering will conduct eight microscopy courses on various aspects of SEM, X-ray Analysis, AEM and AFM. The courses are intended for Engineers, Geologists, Polymer Scientists and Biologists. Other people may also find them useful. The first course, on June 11, is an "Introduction to SEM." The final course, June 21-23, is on "Cyro SEM: Low Temperature Microscopy and Analysis."

The short courses offered at Lehigh's Materials Research Center since 1971 have attracted nearly 5,000 participants from more than 26 countries. Courses are held on the campus of Lehigh University, in Bethlehem, Pa. For more information or to register, contact Lehigh via its Internet URL, <http://www.lehigh.edu/~inmatsci/shortcourses.html>

or direct a phone call (610) 758-4222, or fax (610) 758-4244 to Prof. Charles E. Lyman at Lehigh.

Is NYMS too DIVERSE? Should NYMS Reach Out to SCIENCE TEACHERS?

Five Voices

Introduction

In the spring of 1999, when **Heidi Slatkin** resigned from the Board of Managers, **Jean Portell** asked her to comment about NYMS. Heidi (who continues to be a member of the Society) generously responded. Jean forwarded those comments, along with some she added, to the rest of the board. Three more board members added remarks based on what Heidi said.

When all the comments were circulated to their authors, Heidi added important clarification. She said that although she taught Regents Biology for five years and admits that she did a better job than many science teachers ("but that is far more a sad commentary on the state of science teaching than it is on my expertise"), her background is in English literary theory. "I love science but I don't know very much science," she said (her words resonating strongly with Jean). Heidi believes that she is not a good example of an average teacher upon which NYMS should make decisions. She offered a suggestion: "perhaps a questionnaire sent out to science teachers would be a help -- to see how much microscopy is understood, and how much is taught these days."

Quoted below, with permission from all who spoke up, is the essence of an internal dialog about our Society.

Discussion

HEIDI SLATKIN (high school
(continued on next page))

teacher for NY Regents Biology): I am very fond of the organization, despite my criticism that it is too broadly focused and doesn't target any particular group of folks enough to be interesting or useful to them. Microscopy is no longer a renaissance/amateur person's field. It has become so specialized that it makes little sense to attempt to address all aspects of the field at once. Most of the things that are written about in NYMS publications are totally incomprehensible to me, as a teacher. I think there are people like [member name deleted] and [deleted] out there who are good amateurs. But how can their focus be interesting to [deleted], whose focus is totally separate?

JEAN PORTELL (sculpture conservator in private practice): My response to the first part of Heidi's comment is that I think diversity is a great strength of NYMS. Our members embrace all types of microscopy (while emphasizing light microscopy) and they represent all levels and variety of microscopy experience. Whatever the amount of knowledge or the area of interest a person has in this subject, she or he can find someone in NYMS to learn from. Plus, cross-fertilization of ideas among people working in the various fields that use microscopes is beneficial. So I don't agree with Heidi's feeling that "it makes little sense to attempt to address all aspects of the field at once."

The second part of Heidi's comment, however, alarms me. We are doing something wrong if a respected high school teacher, one who has even served on our board, feels that "Most of the things that are written about in NYMS publications are totally incomprehensible to me." NYMS must be able to reach out effectively to people like Heidi. Science teachers should be a prime group for us to welcome and encourage, so that they, in turn, can teach

microscopy to their students with greater understanding and real enthusiasm.

MARGE WALSH (textile analyst for U.S. Customs):

Where did we miss the boat with Heidi? Think of it: We were all complete amateurs at one point with microscopy, and we'll be amateurs again and again on particular nuances of microscopy as we try to pick up new techniques. But as we discuss these techniques with our fellow members, be they amateurs with experience in our new area of interest, or professionals who have been using that technique for a long time, we become professionals with a wider scope. I have found that I have been able to network very well within the organization, and have often been surprised to realize that it is just the diversity of the organization that has helped me to be my most creative. You never know where you will find an idea to build on. In addition, I appreciate NYMS's diversity when I want to be well informed about the technical world around me. I particularly appreciate attending lectures and reading articles outside my field for this reason.

DON O'LEARY (retired paint & dyes scientist):

I think Heidi makes a good point for the usefulness of the Society. The non-understanding of the microscope is a major problem for scientists and teachers who use the microscope as a tool but have no understanding of the basic concepts of the use of the tool. No one seems to teach scientists and teachers the proper way to use a microscope, and each one is left to his or her own devices in finding out how to best set up a microscope for the work that they do. This is why so many people have problems when they buy a new microscope and discover that they cannot set it up to show what they are used to seeing.

The prime objective of the Society is teaching the use of the instrument, not the specific sciences in which it is used.

LARRY KOBILINSKY, Ph.D. (forensic scientist and college professor/provost):

Microscopy is used in so many different ways, by so many different specialists, that it would be foolhardy to think that any member would be knowledgeable or expert in all or most applications and methods. I think that NYMS members collectively have a good knowledge of the various types of microscopical techniques, but few have expertise in all. I agree with Heidi that it might not make sense to delve into incredible detail [in our newsletter] about any one technique since few readers will have the experience and/or interest to benefit from this level of exposure.

I also agree with Jean's comments regarding the second part of Heidi's message, namely that a high school science teacher cannot understand most of the things written about in NYMS NEWS. This means that either we are not doing a sufficient job in reaching out to the teacher group, or they are not doing their job in reaching out to us. I would bet that many of these science teachers do not even know we exist. It would be interesting to determine what kind of name recognition we have amongst this group.

Join In

Members at large are encouraged to join in this discussion. Speaking out candidly can lead to a stronger organization. No anonymous comments will be published. Please send your opinion to:

Jean Portell

NYMS NEWS Editor

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Brooklyn, NY 11201

Fax: 718-643-8773

E-mail: JeanDP@aol.com

WINTER PARTY



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About 30 people gathered at the NYMS facility in West Paterson on Sunday, December 5, 1999 to celebrate the season with a **Winter Party** and welcome Dr. & Mrs. Peter Evennett from England. At this occasion, Dr. Evennett gave an illustrated talk explaining Ernst Abbe's diffraction theory.



1. **Dan O'Neil, Herb Ohlmeyer and Emilia Cortes** filling their plates.

2. NYMS's "dining room" was crowded! In front conversing are **Walt Aschoff and John Reffner**.

3. String theory meets diffraction theory?

4. Dr. Evennett (in back of the microscope setup that he used) chats with **Seymour Perlowitz and Steve Lepp**.

5. Taking a look at the Society's first edition *Micrographia* are (L to R) **Adam Varley**, President **John A. Reffner**, Peter Evennett, **Herb Ohlmeyer** (standing), Librarian **Mel Pollinger**, **Don O'Leary**, Katherine Evennett.



The photographs in this issue were contributed by:
Jean Portell, Marge Walsh, Majda Whitaker