



Issue 21-1  
Fall 2005



## CALL FOR PAPERS SEMS/ASB 2006

### Members of SEMS:

John Shields and I just returned from the Association of Southeastern Biologists Executive Committee meeting where plans for the 2006 ASB meeting were made. As you know, SEMS is an affiliate of the Microscopy Society of America as well as the Microbeam Analysis Society, and now is an affiliate of the Association of Southeastern Biologists.

SEMS will hold its annual meeting in 2006 with ASB. The meeting will be March 29-April 1 in Gatlinburg, Tennessee at the Gatlinburg Convention Center. The Mills Conference Center (at the Gatlinburg Convention Center) has been remodeled.



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ASB/SEMS will be the first meeting in the new facilities. Hotels for the meeting include the Glenstone Lodge, Microtel, and Holiday Inn. Rates range from \$59.00 for single (\$69.00 for 2-4 people) at the Microtel, to \$75.00 single (or double) at the Glenstone Lodge. The Executive Council of ASB requested that we reserve the inexpensive rooms at the Microtel for students. Within a week or so ASB will have additional information about the hotels and meeting on their website

<http://www.asb.appstate.edu>.

The deadline for SEMS abstracts is January 17, 2006. The format for the abstracts will be the same as it has been in the past. Abstracts will be printed in the Proceedings. Oral and poster abstracts are encouraged. If you are a member of SEMS you can submit an abstract and not be a member of ASB, although ASB encourages anyone who is interested to become a member. John Shields ([jshields@cb.uga.edu](mailto:jshields@cb.uga.edu)) and Charles Humphrey ([cdh1@CDC.gov](mailto:cdh1@CDC.gov)) have kindly agreed to be the Program Chairs for the 2006 meeting. They are in the process of deciding on guest speakers and getting the program together. If you have suggestions about speakers please contact them. We also urge you to submit your abstracts as soon as possible.

Registration for the meeting will be made through ASB. Registration includes admission to the SEMS portion of the program as well as to the abstracts, posters, exhibitors, and social activities. A number of societies are affiliated with ASB and include the following: American Society of Ichthyologists and Herpetologists, Southeastern Division; Beta Beta Beta, Southeastern Region; Botanical Society of America, Southeastern Section;

Continued on page 3

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Newsletter of the  
**Southeastern Microscopy Society**  
A local affiliate of  
**The Microscopy Society of  
America, The Microbeam  
Analysis Society and the  
Association of Southeastern  
Biologists.**

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the Southeastern Microscopy  
Society.  
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Ecological Society of America, Southeastern Chapter; Society of Wetland Scientists; Southeastern Fisheries Council; Southeastern Society of Parasitologists; Southern Appalachian Botanical Society. Registration for the annual meeting will be \$110.00 for regular members and \$65.00 for students.

Students are encouraged to submit abstracts for the Ruska Award from SEMS. Deadline for the SEMS Technician Travel Awards are January 17. Nominations for the Distinguished Scientist, Distinguished Corporate Member, Roth/Michaels Teaching Award, and Paulin Lectureship should be emailed to John Shields ([jshields@cb.uga.edu](mailto:jshields@cb.uga.edu)). Additional awards are given by ASB and other affiliated societies. ASB awards include the following: Meritorious Teaching Award, Outstanding Biology Teacher Award, Student Research Award (\$1000), Student Research Award in Aquatic Biology (\$200), Senior Research Award (\$1000), Student Poster Award (\$300), and Special Service Award. A new Microbiology Award (\$500) will also be given. ASB Travel Support Grants to assist graduate students with expenses at the annual meeting are also available. For awards given by other affiliated societies please check the ASB website. To apply for the awards and grants from ASB you need to be a member. Regular member dues are \$25.00/year, and student dues are \$10.00/year. People nominated for the awards must attend the banquet.

Bill Monroe is the Corporate Liason for SEMS ([monroe@emcenter.msstate.edu](mailto:monroe@emcenter.msstate.edu)) and will be in charge of assisting corporate members with their needs for the annual meeting. I am excited about the ASB/SEMS annual meeting and the opportunities for our corporate members. Last year ASB had 596 people at the annual meeting, and they expect more this year. That is a wonderful opportunity for our corporate members to be exposed to new (and

established) customers. Registration for exhibitors will be \$1000.00, and includes four badges, two tickets to the Thursday night social, signs for the booth, etc. As always, SEMS corporate members can submit advertisements for the newsletter. In addition, this year advertisements can be submitted to the journal *Southeastern Biologist* and will be printed in the April, 2006 issue. The cost of a full page will be \$300, and the cost of a half page will be \$175. There is also a wonderful opportunity for the vendors to do tutorials/workshops. Please contact Scott Jewell, Meeting Planner ([A2ZConvention@yahoo.com](mailto:A2ZConvention@yahoo.com); Phone (336) 421-0034; Cell (336) 213-7373; Fax (336) 421-3425) about exhibitor space and setting up times for workshops.

I am excited about the upcoming 2006 SEMS meeting. By meeting with ASB and other organizations we have the opportunity to attract new members. Exhibitors can demonstrate their equipment to a much larger group of people. SEMS will maintain its unique identity. We have worked with the meeting planners and have arranged for designated times for SEMS abstracts and presentations. SEMS members can also go to any of the other offered sessions by ASB and other affiliated societies. In addition, the local arrangements committee has done an excellent job in planning social activities. There is a Welcome Reception on Wednesday night, a Thursday night social (Beer and Bandana Bash), and the Friday night banquet. The SEMS awards will be given out at the banquet. Our annual business breakfast is scheduled for Friday, March 31.

Submit your abstracts and turn in your registration! See you at the 2006 SEMS meeting! Check the updates on the SEMS website at <http://www.semimicroscopy.org>.

Judy King  
President, SEMS



Conference Center, Gatlinburg  
Tennessee

# SEMS MICROGRAPH COMPETITION

Sponsored by *The Beam*

\$50 Prize FOR THE BEST LIGHT MICROGRAPH  
&  
\$50 Prize FOR THE BEST ELECTRON MICROGRAPH

## RULES FOR ENTRY

- 1) You must be registered for the entire SEMS/ABS meeting.
- 2) Bring your micrographs with you to the meeting. You may submit a maximum of two entries (no individual may win more than one prize).
- 3) Your entries must be posted by 10 a.m., Thursday, March 30, 2006.
- 4) Overall dimension is limited to 11"x14" (less is better).
- 5) A separate sheet of text should include the title and a brief description of your micrograph(s).
- 6) Please print your name and contact information on the **back** of each micrograph.

Entries must be scientifically significant and will be judged on the basis of aesthetics and technical skill.

WINNERS WILL BE ANNOUNCED AT THE BANQUET.

Winning micrographs will be published in *THE BEAM*.

If you need more info please contact

**Beth Richardson**

**706.542.1790 or [beth@plantbio.uga.edu](mailto:beth@plantbio.uga.edu)**

**SEE YOU IN GATLINBURG!**

**SEMS/ASB 2006**  
**March 29-April 1, 2006.**  
**CALLFORPAPERS**

The 2006 Annual Meeting of the Southeastern Microscopy Society to be held with the Association of Southeastern Biologists at The **Gatlinburg Convention Center** at Gatlinburg Tennessee.

**Deadline for receipt** of abstracts (Including Ruska Award Participants) is **January 17, 2006** to **John Shields and Charles Humphrey**

(see addresses below).

**Questions or problems** with preparation of abstracts - please contact the Proceedings Editor (**John Shields**: phone: 706-542-4080 or e-mail: [jshields@cb.uga.edu](mailto:jshields@cb.uga.edu)).

**Preferred methods of submission:**

A) **Disc with submission**

B) **E-mail /attachment:** Formats accepted - MSWord, Wordperfect. NO PDF files.

**Complete the attached form** indicating the type of presentation (Platform or Poster) Powerpoint presentations only. NO 2x2 slides will be accomodated.

**Posters** must fit on 4' tall x 4'wide poster space. That's right - 4 foot by 4 foot.

**Abstract Submissions to BOTH:**

**Charles Humphrey**  
**1600 Clifton Rd**  
**CDC DVRD MS G32**  
**Atlanta, GA 20222**

**Phone: 404-639-3306**  
**e-mail: [CDH1@cdc.gov](mailto:CDH1@cdc.gov)**

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**INSTRUCTIONS for Preparation of Abstracts:**

1. **Single space** for all text. **12 point** Times Roman or Times New Roman font only. This will insure uniformity of space and format for the Proceedings.
2. **BOLD** all letters in the title. *Italicize* or **underline** scientific names. Please do not list degrees of the authors.
4. **Start** the text of the abstract on a new line without indentation. Do not exceed 250 words.

**For more information about the meeting, please go to SEMS webpage ([www.semimicroscopy.org](http://www.semimicroscopy.org))**

## **ASB 2006 Gatlinburg, TN**

### **Meeting rooms**

We will be the first group to use the newly renovated Mills Auditorium which is part of the Gatlinburg Convention center. Scott and I did a hard hat tour 3 weeks ago, things are progressing nicely

### **Housing**

1. The **Glenstone Lodge** has been chosen as the official hotel for the meeting. The Rate is \$75.00 single or double. If the Glenstone fills up, then overflow will go first to their other property across the street (**The Gazebo Inn**) then to The **Holiday Inn** Holidome—which is next door to the Glenstone Lodge.

2. The **Microtel** – (\$59.00 single, 69.00 double) Rooms very small and less expensive and we would like to designate this property strictly for student housing. (Directly across from the convention center).

We have 446 rooms reserved in the Glenstone (216), Gazebo Inn (60), Microtel (85) . . . plus an additional 50 rooms for overflow at the Holiday Inn.

### **Social Events**

Wednesday night mixer: In the exhibit hall with background music by a local bluegrass group the “Woodpickers”. Heavy Hors d’oeuvres and cash bar

Thursday night social: Beer and Bandana Bash at Mills Auditorium. Food will be picnic style with Hamburgers and hot dogs; beer will be furnished by Smoky Mt. Brewery (microbrew)

Friday night banquet: Tennessee Ballroom: Chicken en Croute (Boneless breast of chicken stuffed with mushrooms, backed and served with a mushroom demi-glace; chef’s choice of vegetables, spinach-orange salad, assorted desserts, and chocolate fountain with strawberries, pineapple, pound cake and sugar cookies.

### **Field trips:**

Dr. Ed Clebsch and Dr. Ken McFarland will organize the field trips. This is an excellent time of the year to see things in the “park” that you never notice before.

Preliminary report from the Local Arrangements Committee for Field Trips at the SABS 2006 Meetings in Gatlinburg TN - March 29 - April 1.

- 1) ATBI - an overview of the operation of this program and the benefits it gives to the park and the public.
- 2) Environmental Challenges in preserving the biological integrity of the Park - a look at air quality issues, invasive species and proposed road construction.
- 3) Plant Communities of the Smokies - a first hand - view of several biological communities unique to the Southern Appalachians. Travel from Sugarlands to Clingman’s Dome.
- 4) Birding in the Smokies - a first hand view of the great diversity of birds in the Smokies. Travel from Sugarlands to Clingman’s Dome.
- 5) Salamanders of the Smokies - a first hand view of the great diversity of salamanders in the Smokies.
- 6) Black Bears in the Smokies - an opportunity to view bear habitat, learn about their habits and issues of human interactions with them.

**Preliminary Program**  
**ASB/SEMS 2006**  
**Wednesday, March 29 -Friday, April 1**

**Preliminary Program**

**WEDNESDAY, MARCH 29th**

8:00 am-4:00 pm	Exhibitor Set up-(Tennessee Ballroom-GCC)
11:00 am-??pm	Registration—(??)
????????????	<b>Exhibitor Workshops (Tennessee Ballroom C and D)??</b>
12:00 pm-2:00 pm	<b>SEMS Executive Council meeting and luncheon (Highlander room-GSL)</b>
1:00 pm-6:00 pm	ASB Executive Council Meeting (Azalea Room- GSL)
2:00 pm-6:00 pm	SABS Council Meeting (Dogwood 1-GSL)
2:00 pm-6:00 pm	SSP council Meeting (Gatlinburg A&B-GCC)
6:00 pm-7:30 pm	SSP lecture (Gatlinburg A&B-GCC)
4:00 pm-6:00 pm	Exhibit Area Opened (Tennessee Ballroom-GCC)
6:00 pm-7:30 pm	ASB Plenary Session (Mills Auditorium-GCC) (Dr. Peter White-N Carolina Botanical Garden)
7:30 pm-9:00 pm	<b>ASB Welcome Reception (Tennessee Ballroom-GCC)</b>

**THURSDAY, MARCH 30TH**

7:00 am-8:30 am	Past-President Breakfast (Dogwood 1-GSL)
8:00 am-8:00 pm	Registration
8:00 am-9:00 am	Poster Set-up (Tennessee Ballroom-GCC)
8:00 am-4:30 pm	PowerPoint/slide previewing (Greenbrier Room-GCC)
8:30 am-12:00 pm	<b>Morning Paper Sessions</b>
8:00 am-4:30 pm	Exhibit Area Opened
12:00 pm-1:30 pm	Lunch
12:15 pm-1:30 pm	SWS Luncheon (Dogwood 1-GSL)
12:00 pm-5:00 pm	Tri-Beta Field trip
1:30pm-4:45 pm	<b>Afternoon Paper Sessions</b>
6:00pm-10:00pm	<b>Thursday Night Social : Beer and Bandana Bash –</b> (Mills Auditorium-GCC)

**FRIDAY, MARCH 31ST**

7:00 am-8:30 am	SABS/BSA Breakfast/ Business meeting (Azalea-GSL)
7:00 am-8:30 am	<b>SEMS Breakfast/Business meeting (Dogwood A-GSL)</b>
8:00 am-8:00 pm	Registration
8:00 am-4:30 pm	PowerPoint/slide previewing
8:00 am-1:30 pm	Exhibit Area Opened
8:30 am- 11:00 am	<b>Morning Paper Sessions</b>
8:30 am- 12:00 am	Tri-Beta Activities
11:15 am-12:00 pm	ASB Business Meeting (Ballroom C-GCC)
12:00 pm- 1:30 pm	Lunch
12:15 pm- 1:30 pm	ESA Luncheon (Azalea-GSL)
12:15 pm-1:30 pm	SSP Luncheon (Dogwood 1-GSL)
1:30 pm-4:45 pm	<b>Afternoon Sessions</b>
1:30 pm-4:45 pm	Tri-Beta activities
5:30 pm-10:00 pm	<b>Friday night Banquet (Tennessee Ballroom)</b>

**SATURDAY, APRIL 1ST**

7:00 am-8:00 am	ASB Executive Committee Breakfast (Azalea-GSL)
8:00 am-11:00 am	ASB Executive Committee Meeting
8:00 am-12:00 am	<b>Half day Field trips</b>



Our new SEMS photographer,  
**Dayton Cash** of Clemson  
University



**Nancy Crouch** of ICMAS  
enjoying the reception



**Tim Sledz** of Mico Photonics at the  
Wednesday demonstrations



**Rich Fiore** (Zeiss) and **Doug Griffith**  
(Hitachi) enjoying the company of some  
lovely Beach Babes



**Sara Miller** and **Robert Simmons** are  
not buying the get-rich-microscopist  
deal offered by **Greg Erdos**



No way, Dude !

### SEMS 2005 Award Winners



Member-at-large **Beth Richardson** and President **John Shields** congratulate the Ruska Participants - (L-R) **Rich Davis**, **Janet Donaldson** and **Diego Alvarez**.



Master of Ceremonies, **Bill Monroe** with the Poster winners **Will Stone** and **Svjetlana Vojvodic**, and the Ruska Award winner **Janet Donaldson**.



SEMS first Roth/Michaels Teaching Award winner, **Dr. Jim Sheetz**. Jim is also a long-time supporter of the society, filling several roles over the years.

All pictures courtesy Dayton Cash

**Southeastern Microscopy Society**  
**General Business Meeting**  
**May 20, 2005**  
**Hilton Garden Inn, Pensacola Beach, Florida**

President John Shields called the meeting to order at 7:50 a.m.

Members present: Diego Alvarez, David Burk, Alberto Camus, John Caola, Dayton Cash, Jonathan Culpepper, Ann Ellis, Greg Erdos, Thom Hopen, Charles Humphrey, Frances Hvolboll, Krista Kammerer, Kim Kangasniemi, Karen Kelley, Cathy Kelloes, Judy King, Lorena Lopez, Paul Mainwaring, Mike Miller, Sara Miller, Charles Mims, Bill Monroe, Bob Price, Beth Richardson, Lynda Schneider, Jim Sheetz, John Shields, Robert Simmons, Doug Stone, Giselle Thibaudeau and Alice Zuniga.

**I.** The General Business Meeting Minutes of August 5, 2004 were approved.

**II. Election Results** – Judy King announced:

Johnny Carson - President-Elect.

Cynthia Goldsmith – Secretary.

Richard Brown – Member-At-Large.

**III. Technologist Support** – John Shields announced that Lynda Schneider, Karen Kelley, and Beth Richardson applied for and received financial support for the 2005 meeting.

**IV. Treasurer's Report** – Karen Kelley distributed a handout titled *SEMS Treasurer's Summary 1/1/05-5/16/05*. Treasurer's total balance was \$14,496.41. The 2005 meeting expenses would be paid from this account and possibly by cashing in one of the Society's certificates of deposit.

*Membership:* There are 160 regular or student members listed but only 73 individuals are current with their dues, plus 13 Distinguished Scientists/Emeritus members have their dues waived by the Society. There are 24 corporate members listed but only 14 are current with their membership dues. All members were thanked for paying their dues and/or encouraged to pay their dues.

*For the 2005 meeting:* There were 50 attendees and 17 vendors. A few regular memberships were brought up to date and there were 4 new memberships. Verbal commitments were made by four corporations to update their memberships and/or become new members of the Society. Members were encouraged to ask their colleagues, co-workers and friends to join SEMS.

The Treasurer's Report was approved.

**V. Investments** – Charles Humphrey distributed a handout titled *SEMS Endowment Jan.1, 2004 – Dec. 31 2004*. The Society's savings are invested in the SunTrust Bank of Northeast Georgia Savings Certificates or in a money market/stock account with The Bank of America (total at SunTrust Bank - \$31,341.91 and the total at Bank of America - \$7,900.57 = \$39,242.48). Endowment gain in 2004 was \$2,063.92.

One of the Certificates may need to be cashed in to help pay for the 2005 meeting. A \$500 penalty will be incurred. Charles will look into establishing new long and short term Certificates as interest rates and the Society's needs have changed.

**VI. Newsletter Editors Report** – John Shields distributed a handout titled *Newsletter and Proceedings for May 18, 2005*. The balance on *The Beam* account as of 5/17/05 was \$3,229.67. During the past year, \$1,200.00 was transferred to the Treasurer to maintain a minimum balance and avoid penalty fees on the Society's bank account.

*The Beam* funds were used to print the newsletter, print and mail ballots, print brochures, mail letters to potential and existing corporate members for advertising and membership, support a new membership mailing drive and to publish *The Proceedings*. Also, *The Beam* sponsored the micrograph contest at the annual meeting (\$100).

A plea was made for a new editor, plus articles and micrographs.

Dayton Cash was acknowledged as the newly appointed photographer.

The Newsletter Editor's Report was approved.

**VII. Website Report** – Pat Brown's Report was given by John Shields.

The SEMS website will be redesigned. Micrographs and articles for the website were requested. On-line membership forms and Pay Pals payment by annual contract or transaction was discussed. A comment was made that a committee was needed to focus on membership both on-line and by regular mail. A request was made for a more detailed report.

**VIII. Future Meeting Sites** – John Shields announced that the Executive Council met with Dwayne Wise from the Association of Southeastern Biologists (ASB). SEMS will meet with ASB on March 29-April 1, 2006 in Gatlinburg, TN. At future ASB meetings incoming SEMS President, Judy King, will serve as our representative and John Shields will serve as our Program Chair.

*Discussion:*

Jim Sheetz raised concerns about the corporate members participation at the 2006 meeting with ASB. John Shields was asked to poll the corporate members and to discuss their willingness to do tutorials and demonstrations at Gatlinburg.

Bob Price stated that SEMS is not strictly a Biological Society. Meeting with ASB could result in a problem of perception.

Sara Miller suggested meeting again with the Appalachian Regional Microscopy Society (AreMS) but Bob Price stated that they only meet once a year in the fall. An invitation to meet with AReMS will be extended for future meetings even though SEMS meets in the springtime.

Suggestions for other meeting locations included Nashville, TN, Charleston, SC, Columbia, SC, and Athens, GA. Members at these locations are encouraged to submit meeting proposals to the Executive Council.

**IX. Awards**

The 2005 Ruska Award was presented to Janet Donaldson. She received an engraved plaque, certificate of participation and \$200.00.

John Shields requested nominations for the Distinguished Scientist Award, Distinguished Corporate Member Award, Roth-Michaels Teaching Award, and the Jerry Paulin Lectureship Award (see By-Laws Article XVI – Awards for details or contact John).

#### **X. Change to the By-Laws**

A Motion was made to change the By-Laws: Article 8 - Officers, Section 9 - Corporate Representative.

*From:* A Corporate Representative shall be elected by the corporate members and then officially appointed by the President, with the approval of the Executive Council. The duty of the Corporate Representative shall be to act as a liaison between the Executive Council and Corporations. The term of office shall be two years.

*To:* A Corporate Liaison shall be appointed by the President, with approval from the Executive Council. The duty of the Corporate Liaison shall be to maintain communication between the Executive Council and Corporations. The term of office shall be three years.

Motion was approved.

#### **XI. Change to the Membership Dues**

A Motion was made to change the Society's membership dues. Regular membership will cost \$20.00, student membership will cost \$10.00 and corporate membership will cost \$100. The new fees will be in effect for 2006.

Motion was approved.

#### **XII. Poster Competition**

Details for a Student Poster Award will be worked out by the Executive Council. At this meeting two \$25 awards were given for best posters to Lorena Lopez and Doug Stone.

#### **XIII. New Business:**

A Committee for Membership will consist of the Members-at-Large and the Corporate Liaison. Any Society member in good standing and interested in helping to increase the membership is welcome to join the committee.

Robert Simmons reported that the Microscopy Society of America (MSA) meeting would be held in Honolulu, Hawaii July 31-August 4, 2005. Volunteers are needed so MSA is offering free registration, T-shirt, opening reception, breakfast and lunch.

Sara Miller was sad to report that Ted Willmarth, a Distinguished Corporate SEMS member passed away on March 9, 2005. Ted worked on the Manhattan Project (Secretary's note: read his article on The Manhattan Project in *The Beam* Sept 1991). As a corporate member he gave away a bottle of Jack Daniels Black at every meeting. He would have been 99 years old on March 17.

John Shields turned the meeting over to the new President, Judy King. Judy thanked John Shields for his service to the Society as the President.

The meeting was adjourned at 9:00 a.m.

Respectfully submitted by Beth Richardson  
Member-at-Large (sitting in for the Secretary Mary Ard)

## Dr. Henry C. Aldrich, PhD



Dr. Henry C. Aldrich, Professor Emeritus at the University of Florida and long-time member of SEMS, recently died of a massive heart attack at the age of 64. Henry was born in Beaumont Texas and completed his Ph.D. in Botany at the University of Texas at Austin in 1966. He then joined the faculty at the University of Florida in Gainesville where he spend his entire academic career.

Henry was one of the first researchers to use transmission electron microscopy to study the life cycles of myxomycetes, commonly known as true plasmodial slime molds, and made many important contributions to the knowledge of these organisms. His interest in and love for these fascinating creatures persisted through out his career and, in fact, only recently he co-authored a paper representing the first report of the sporulation of a slime mold on an animal, namely a lizard belonging to the genus *Corytophanes*. His interest in electron microscopy also persisted over the years although his research shifted eventually from slime molds to bacterial ultrastructure later in his career.

Henry was quite active professionally and was one of the youngest individuals ever to serve as President of the Mycological Society of America.. He also served as both Secretary/Treasurer and President of the Southeastern Branch of the American Society of Microbiology. He was also a talented flower, landscape and nature photographer and sold a number of his photographs commercially. In addition, he was an outstanding musician who played the violin, piano and organ. As a member of the United Church of Gainesville, FL, he played the organ during church services for more than 30 years.

Survivors include his wife, Sylvia Coleman of Gainesville who is also a member of SEMS, sons Clay Chapman Aldrich of Oak Park, CA, and John Clark Aldrich of Vienna, VA and three grandsons.

Expression of sympathy should be made in the form of contributions to the Polycystic Kidney Foundation.

## Theodore E. Willmarth



Theodore Willmarth, 98, died March 9, 2005 in Harriman, TN. Ted was born May 17, 1906 in Detroit. He graduated from Michigan State College in 1930. During the Great Depression, he worked for the Detroit Department of Public Works, Recreation, Welfare and Tax Department. He interviewed in Minneapolis for duty on the secret Manhattan Project in New York. There he established a microscopy and photography lab for materials science. He was a member emeritus of the Microscopy Society of America, AREMs and SEMS. AREMs established the Willmarth Research Award for excellence in microscopy.

Some information about Ted's activities in SEMS can be read in the comment by Sara Miller in the minutes printed in this issue of the Beam.

Survivors include his wife, Phyllis; daughters, Sandra Willmarth and Barbara Higdon and a son, Richard along with several grandchildren. Memorial donations can be made to Bethel Presbyterian Church, 203 S. Kentucky St. Kingston, TN 37763 or the Kingston City Library, 1004 Bradford Way, Kingston TN 37763.

Information for Ted's death came from the local newspaper sent by Phyllis Willmarth.

## **Attention SEMS Members!**

The following issues will be brought up at the General Business Breakfast Meeting in Pensacola Beach. Membership approved the changes to be amended to the by-laws.

### ***Item 1:***

#### Amendment to the By-Laws

In response to the need for more corporate representation, Executive Council would like to make the following amendment to the By-Laws. This amendment is to be voted upon at the next General Business Meeting:

Current wording:

#### ARTICLE VIII

SECTION 9. CORPORATE REPRESENTATIVE. – A Corporate Representative shall be elected by the Corporate members and then officially appointed by the President, with the approval of the Executive Council. The duty of the Corporate Representative shall be to act as liaison between the Executive Council and Corporations. The term of office shall be two years.

Amendment to strike Corporate Representative and replace with:

#### ARTICLE VIII

SECTION 9. CORPORATE LIAISON COUNCILOR. – A Corporate Liaison Councilor shall be appointed in accordance with ARTICLE VIII, SECTION 7 of these By-Laws to serve as liaison between the Society and the Corporate Membership. The Corporate Liaison Councilor shall be appointed from the regular membership or the corporate membership. The duties of the Corporate Liaison Councilor shall include the soliciting of new corporate members. The term of office shall be for three years.

### ***Item 2:***

#### Proposal from the SEMS Executive Council

SEMS Executive Council has made a motion to increase the yearly membership dues beginning January 2006 to the following:

Members	\$20.00
Students	\$10.00
Corporate	\$100.00

This motion is in response to the suggestion and discussion made at the 2004 General Business Meeting in Savannah. The SEMS voting membership will approve or disapprove this motion at the next General Business Meeting. For reference, ARTICLE V., SECTION 6. of the SEMS Bylaws states:

SECTION 6. DUES. \_ The annual dues of the Society shall be determined by the Executive Council in accordance with the needs of the Society and approved by the voting membership present at the next Annual Business Meeting. Payment of dues shall be based on the fiscal year and dues, in U.S. Dollars, shall be payable in advance. Any person accepted for membership in the Society at the Annual Meeting will pay dues for the current fiscal year. Any person accepted for membership after October 1st of the fiscal year will be credited with the following fiscal year's dues. Each Student Member shall pay such annual dues as the Executive Council shall determine but not less than half of the regular membership dues, and such dues shall be payable in advance on the first day of each January. The annual dues of each Corporate Member shall be as the Executive Council shall determine and such dues shall be payable in advance on the first day of each January. Payment of a corporate membership entitles a corporation or association to regular membership benefits for one employee whose name shall be submitted each year with the dues payment. Other corporate representatives may become regular members by paying the individual membership. The privileges of membership enjoyed by Corporate Membership Designates are restricted in accordance with ARTICLE V, SECTION 3.

## Application for Travel Support to joint ASB/SEMS meeting for Technologists

Each year the SEMS Executive Council considers applications for travel awards to support meeting attendance by Technologists. Awards are made on a competitive basis from limited funds designated by the society for this purpose. **Submitting this application does not guarantee that an award will be made.**

### A. Please Print or Type:

Name: \_\_\_\_\_

Job Title: \_\_\_\_\_

Company or Institution: \_\_\_\_\_

Mailing address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

E-mail: \_\_\_\_\_

SEMS member for \_\_\_\_\_ Years

Name of immediate supervisor: \_\_\_\_\_

Supervisor's Phone: \_\_\_\_\_

Supervisor e-mail: \_\_\_\_\_

Signature of Supervisor \_\_\_\_\_  
(indicating support for your attendance)

### B. Dollar amount of local funds available for you to attend ASB/SEMS 2006:

Minimum amount requested from SEMS to attend Meeting: (fill all that apply)

**Hotel**

**Registration** (available only to those presenting) \_\_\_\_\_

**Automobile travel** (calculate \$0.30/mile) \_\_\_\_\_

**Air Travel** (awards for air fare \_\_\_\_\_

will receive second priority, \_\_\_\_\_

may not be sufficient to cover entire fare, \_\_\_\_\_

and are subject to final confirmation of cost) \_\_\_\_\_

**Total:** \_\_\_\_\_

It is assumed that if this minimum cannot be met, you will be unable to attend the meetings. More funds than your requested minimum may be allocated after consultation with you, the Executive Council, and other applicants.

\*Please use a separate sheet to briefly comment on how participation at the meeting would benefit you and enhance your present position.

Applications must be received by **January 17, 2006**. Mail to:

Judy King, 2451 Fillingim St.            334-471-7779  
Univ. South Alabama                    jking@usouthal.edu  
Mobile, AL 36849

## **RUSKA AWARD STUDENT COMPETITION**

SEMS announces the 2006 Ruska Award Student Competition

The Ruska Award was named in honor of Ernst Ruska an inventor of the electron microscope, and his brother Helmut, who collaborated in the development of this powerful research instrument. The award recognizes excellence in the biological and physical sciences by student researchers using microscopy as the primary research tool. To qualify for this award students must 1) submit a written research summary – follow directions listed below 2) submit an abstract – follow directions in “Call for Papers” 3) and present their work in the form of a PowerPoint presentation at the SEMS meeting. The presentation should be twelve minutes in length followed by a three minute question and answer period. The Ruska Award Committee will evaluate the scientific merit of the abstract, the quality of the writing and micrographs and the oral presentation.

Participants receive free meeting registration and free housing at the meeting hotel (applicants must be willing to share a room with other students) and a free banquet ticket. The first place winner will be awarded the Ruska Award plaque and \$200.00 at the meeting banquet. All participants receive a certificate of participation.

### **Ruska Award Guidelines**

1. Applicants must be, or have been, an undergraduate or graduate student during the academic year of the meeting. The applicant **cannot** be a previous Ruska Award winner.
2. Students must present original research conducted by the student. The research may be co-authored by the student’s advisor.
3. Applicants must submit a Research Summary. The written portion of the research summary should not exceed two-pages. An additional page of micrographs or tables /charts related to the project should be included with a figure legend that describes each micrograph or table.
4. The Research Summary must consist of:
  - Title
  - Author (s) name, and affiliation
  - Introduction
  - Methods and Materials
  - Results/Discussion
  - References

A plate of micrographs or a combination of micrographs and tables must be accompanied by a figure legend that describes each micrograph or table.

**The entire Research Summary should not exceed four pages.**

5. **Four copies** of the Research Summary must be submitted to the **Ruska Award Chair by Friday, Jan 17, 2006**. Include a signed copy of the Ruska Award Checklist (next page). The student’s advisor must sign the **Ruska Award Checklist**.

Ruska Award Chair:

Michael Miller  
Biol. EM Imaging Facility  
101 Life Sciences Bldg  
Auburn Univ.  
Auburn, AL 36849  
334-884-1654  
millem1@auburn.edu

6. Write an Abstract following the guidelines in the “Call for Papers” article included elsewhere in this issue of *The Beam*.  
An **electronic submission** of the Abstract clearly labeled “**Ruska Participant**” must be submitted to the **Program Chair by Tuesday, Jan 17, 2005**.  
Program Chair:

John Shields  
151 Barrow Hall  
Univ. of Georgia  
Athens, GA 30602  
706-542-4080  
jshields@cb.uga.edu

**Ruska Award Checklist: Mail this form with your Research Summary**

1. Student’s name\_\_\_\_\_.
  2. Your affiliation \_\_\_\_\_.
  3. Your address\_\_\_\_\_.
4. Research Summary includes:
- Title, Authors, Affiliation\_\_\_\_.
- Introduction\_\_\_\_\_.
- Methods & Materials\_\_\_\_\_.
- Results\_\_\_\_\_.
- Discussion\_\_\_\_\_.
- Figures &Legends\_\_\_\_\_.

Send Four Copies to Ruska Award Chair and One copy to Program Chair.

5. Sponsor verification:  
“I verify that the above listed Ruska Award participant is an undergraduate/graduate student during this academic year.”  
Signed/Dated\_\_\_\_\_.

## **Ruska Award Method of Evaluation**

The Ruska Award Committee using the following criteria will evaluate the research summary and oral presentation:

### **I. Submitted Text**

#### **A. Scientific Merit**

1. Soundness of research proposal
2. Experimental design and thoroughness of investigation (originality, correlated techniques)
3. Validation of conclusions
4. Application of microscopy and associated methods to answer experimental questions

#### **B. Micrographs**

1. Presentation of specimen (fixation, quality of sectioning and staining)
2. Instrumentation
3. Photographic quality (aesthetics, density, contrast)

#### **C. Quality of Writing**

1. Organization
2. Clarity
3. Grammatical correctness

### **II. Oral Presentation**

#### **A. Clarity**

#### **B. Communication**

#### **C. Quality of Presentation**

#### **D. Response to audience questions**

#### **E. Adherence to presentation time limit (12 minutes for the presentation and 3 minutes for questions)**



Demo of the Aetos System at the Pensacola meeting workshops.



Ladd Industries

**Microscopy Society of America  
Application for Membership**

230 East Ohio Street, Suite 400  
Chicago, IL 60611-3265  
800-538-3672, 312-644-1527, Fax: 312-644-8557  
Email: [BusinessOffice@MSA.Microscopy.Com](mailto:BusinessOffice@MSA.Microscopy.Com)

To Apply, please go to  
<http://www.msa.microscopy.org/MSAUnits/Members/NewMemberApplication.html>

And fill out the form online

**CHANGE OF AFFILIATION,  
PHONE, E-MAIL, ADDRESS?**

Contact one of these individuals with your new information so members can find you!

**Cynthia Goldsmith**, Secretary  
1600 Clifton Rd.  
CDCMS G30  
Atlanta, GA 30333  
404-639-3306  
[cgoldsmith@cdc.gov](mailto:cgoldsmith@cdc.gov)

**Karen Kelley**, Treasurer  
Univ. of Florida,  
PO Box 118525  
Gainesville, FL 32611  
353-392-1295  
[klk@biotech.ufl.edu](mailto:klk@biotech.ufl.edu)

**John Shields**, Editor  
EM Lab  
151 Barrow Hall  
Univ. of GA  
Athens, GA 30602  
706-542-4080  
[jshields@cb.uga.edu](mailto:jshields@cb.uga.edu)

# Southeastern Microscopy Society Membership Application

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The purpose of SEMS is to increase and spread knowledge of microscopy. Most members share an interest in the biological and physical sciences, applications of light microscopy, and transmission and scanning electron microscopy, and microscopical analysis. The annual meeting presents invited speakers, contributed papers and posters, as well as commercial exhibits of light and electron microscopes and related equipment and supplies.

Annual dues for regular members are **\$20**, students (with signature of faculty advisor) **\$10** and corporate members **\$100** for the calendar year.

---

Name: \_\_\_\_\_

Company or Institution: \_\_\_\_\_

Mailing address: \_\_\_\_\_

City, State, zip: \_\_\_\_\_

Telephone: \_\_\_\_\_ E-mail: \_\_\_\_\_

Fax: \_\_\_\_\_ URL: \_\_\_\_\_

Membership:  Regular  Student  Corporate

\*Signature of Faculty Advisor: \_\_\_\_\_

Make checks payable to **SEMS** and mail to:

**Karen Kelley, Treasurer**  
**PO Box 118525**  
**University of Florida**  
**Gainesville, FL 32611**

## Collecting Snowflakes

By **Thomas Hopen**

The accompanying picture of the snowflakes was used for the front cover of the June issue of American Laboratory News and Mr. David L. Peira of International Scientific Communications, Inc, compiled the design. The snowflakes are actually replicas of snowflakes, which were collected during a snowstorm while I was visiting Almaty, Kazakstan in 1996. I started collecting snowflakes while living in Chicago when I was instructor at the McCrone Research Institute in the mid-eighties and fellow State Microscopical Society of Illinois member Dr. Robert Kuksuk got me started collecting and making replicas of snowflakes.



Unfortunately the hobby of collecting snowflakes became more difficult when I moved to Atlanta, Georgia in 1987 but I have always kept my snowflake collecting kit ready and I take it with me whenever I travel if there is a chance that it might snow.

Collecting and making replicas of snowflakes is much easier than one might expect and will provide hours of enjoyment, especially if you involve children, friends, or relatives. All you need is a cold dark surface to collect the snowflakes on (I like using a black plastic binder or a black velvet cloth placed over a board or large book making sure the velvet is somehow attached so the wind won't blow it off), an instrument for picking the snowflakes off the collection surface (such as a fine needle, a glass rod with one end drawn to a fine point, an eyelash hair attached to a wooden stick, or a fine tipped paint brush), microscope slides, and a dropper bottle with a 1% solution (the percentage can vary slightly) of Formvar in ethylene dichloride (1,2-dichloroethane) which can be purchased from any of the electron microscopy supply companies. Keep all your equipment in the freezer so you are ready when a snowstorm comes along.

The best times I've experienced for collection snowflakes is during the early morning or late night when the snowflakes are falling gently down to the ground and the wind is not blowing too hard. If possible, set up your equipment in a protected area (outside porch or shed). Collect a light dusting of snowflakes on the black velvet or plastic and examine them for intact, well-formed snowflakes, being careful not to exhale through your mouth since you might melt the snowflakes. If you do not see any good flakes, brush the velvet off and try again. Once you have a few good snowflakes, place a drop or several individual drops of Formvar on a microscope slide. Carefully remove a snowflake from the velvet and place in a drop of Formvar, repeating this step if you have more than one drop on the microscope slide. Once you have placed a snowflake in each of the drops, place the slide bearing the snowflakes in a protected area (I use a cardboard box placed on its side) and allow the drops to evaporate to dryness. Once you have finished collecting and allowed the drops to dry, take your slides inside and let them warm up and examine them with a low power lens or microscope and admire the beauty of each of the snowflakes you have collected.

If anyone needs additional information or would like a color print of the picture that appeared on the cover of American Laboratory, please contact me at MVA, Inc. 5500 Oakbrook Parkway, Suite 200, Norcross Georgia 30093. Also, John Delly published an article on snowflake collecting in the November issue (#98-9) of Microscopy Today, which includes additional information on the subject.

# MICROBEAM ANALYSIS SOCIETY

(FEIN 23-7044608)  
PO BOX 502  
Fairport, NY 14450-0502  
**MEMBERSHIP APPLICATION**  
(web)



## MEMBER INFORMATION (Please print or type)

Name: Last \_\_\_\_\_ First \_\_\_\_\_ M. Initial \_\_\_\_ Title \_\_\_\_\_

Affiliation: (Agency/Business/School) \_\_\_\_\_

Mailing Address ( ) Home or ( ) Agency/Business/School

Street address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Country: \_\_\_\_\_ Zip: \_\_\_\_\_

Phone Numbers: Home \_\_\_\_\_ Agency/Business/School \_\_\_\_\_

Fax Number: \_\_\_\_\_ Email: \_\_\_\_\_

Are you a member of MSA? ( ) Y ( ) N Are you a member of a MAS affiliated regional society? ( ) Y ( ) N

**NOTE:** MAS makes its mailing list available to our sustaining members and other companies in the field for a fee.  
If you do not want your name included on these labels, check here ( )

### MEMBERSHIP TYPE (CHECK ONE)

( ) Regular Member ( ) Student Member (**must** complete the following)

Faculty Advisor (Print): \_\_\_\_\_ Graduation Date: \_\_\_\_\_

Advisor's Signature: \_\_\_\_\_

### MEMBERSHIP DUES

REGULAR (\$25.00), STUDENT (\$5.00) \_\_\_\_\_

Additional mailing costs for foreign members (\$5.00) \_\_\_\_\_

Microscopy and Microanalysis Journal (\$15 for US residents, \$38 for non-US residents) \_\_\_\_\_

**MSA members: the Journal is included in your MSA membership dues**

Contribution to Fiori Fund\* \_\_\_\_\_

(supporting a MAS tour speaker presenting topics of technical interest)

Contribution to Potter Fund\* \_\_\_\_\_

(supporting students attending the annual M&M meeting)

*\*Use of both funds is at the discretion of the MAS Council* **TOTAL ENCLOSED \$** \_\_\_\_\_

### METHOD OF PAYMENT (US Dollars Only)

\_\_\_ CHECK Make payable to Microbeam Analysis Society. All checks must be drawn on a US bank with the US Micro transit code. Foreign drafts without this code will be charged an additional \$20 to process.

\_\_\_ CREDIT CARD ( ) Visa ( ) MasterCard

Name of cardholder (PRINT): \_\_\_\_\_ Expiration Date: \_\_\_\_\_

Signature of cardholder: \_\_\_\_\_ Card Number: \_\_\_\_\_

Billing Address if different than above: \_\_\_\_\_

Your canceled check or credit card charge statement is your receipt. If you want a separate receipt, check here ( )

-----  
I hereby apply for admission as a member of the Microbeam Analysis Society and agree to be governed by the Constitution and By-laws of the Society and to promote its aims and objectives.

**Applicant's Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Mail application with credit card information or check to: Microbeam Analysis Society, PO Box 502, Fairport, NY, 14450-0502

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