

# Chesapeake Chemist

*Maryland Section  
American Chemical  
Society*



**Dr. Catherine Fenselau  
Chemistry & Biochemistry Dept.  
University of Maryland**

## **Travels with a Mass Spectrometer**

Wednesday, October 25, 2006 – Villa Julie College

## Message from the Chair

By: Sandra K. Young

We've had a busy month and the startling news of a serious and sudden illness of our editor, colleague and friend, Cindy Kronman. We do not often think about all the work that a volunteer for the section does until something happens to them and they are unavailable to do the valuable work that we depend on. I volunteered to pull together the current issue and be the editor and, while not perfect, it is as best a replica of what Cindy would normally do for us. We miss you Cindy and hope you are better soon!

Due to the late date and inability to get the October Chesapeake Chemist (CC) format that Cindy was working on, there was not enough time to get this edition to the printer in order for it to be printed and mailed out before the meeting. Therefore, the CC is being sent out via e-mail only this month to our section membership. By choosing to e-mail out our newsletter instead of not publish at all, we will be able to reach over 1600 members instead of none.

How do we know so many people's e-mails? Well, National ACS e-mails out a roster/database of all section members to the section leadership every month. In this roster, we have available your snail mail (regular mail) and e-mail information and whether you do or don't wish ACS to use your e-mail for contact. Because you either stated in your membership renewal that you do not mind being contacted via e-mail or didn't state a preference at all, you are receiving the Chesapeake Chemist this month via e-mail. Besides sending you the CC via e-mail, we will **never** use your e-mail to contact you about any other item/issue without your permission. You are welcome to change your permissions with National ACS by contacting their membership division: 800-333-9511 (US only) or [service@acs.org](mailto:service@acs.org).

In the near future, we would like to do several things with the Maryland ACS Chesapeake Chemist newsletter: **(1)** Go towards an electronic format only and post the CC on our website (<http://mdchem.org>) and e-mail out the CC to most of our membership, reducing the number of printed copies - right now we have over 2,000 section members and only about 100 receive the Chesapeake Chemist via e-mail so printing costs are high and mailing the CC can be slow and many of our members do not receive the CC in a timely fashion for meetings, which is a continuing source of problems (many organizations are going to mandatory electronic only communications because of high costs of publishing but we aren't considering this at this time), **(2)** Expand the CC to include valuable activities and volunteer work going on by your colleagues/section members and student affiliate groups, **(3)** Spruce things up a bit - if we go to a mostly e-mail format, we can have a larger newsletter and can include color pictures and other information that would be cost prohibitive for the print version, and **(4)** encourage members to use our section website for getting information - this is a comprehensive source of information on the section and for monthly events.

Comments or questions about the Chesapeake Chemist newsletter or any other Maryland Section issue? - Please e-mail me ([chemists4fun@yahoo.com](mailto:chemists4fun@yahoo.com)).

## Report of the Council Meeting - San Francisco

By: Charles Rowell

What does the American Chemical Society do at its National Meetings? During most of the time, we think of the technical presentations and the exhibits. There are other things going on and some are pretty interesting. Some of the national meeting and members of the local sections in the area spent part of Saturday filling food boxes, cleaning up stream beds, and a number of other service projects. On Sunday, there was a very impressive set of talks centered on Dr. Percy Julian who, among other things, synthesized cortisone and other steroid drugs, was the holder of more than 100 patents, and

(Continued on Page 5)

# ACS Maryland Section - Officers and Committee Chairs

## Section Officers

Chair: Sandra K. Young, 410-306-0679

[skyoung@arl.army.mil](mailto:skyoung@arl.army.mil)

Vice-chair: Stephanie J. Watson

301-975-6448; [stephanie.watson@nist.gov](mailto:stephanie.watson@nist.gov)

Chair-elect: Lev Ryzhkov, 410-704-3831

[lryzhkov@towson.edu](mailto:lryzhkov@towson.edu)

Secretary: Sara Narayan, 410-602-7326

Treasurer: Angela Sherman, 410-532-5713

CND of MD, 4701 North Charles Street  
Baltimore, MD 21210

[asherman@ndm.edu](mailto:asherman@ndm.edu)

## Councilors

Merle I. Eiss  
410-484-0521

[meiss32@aol.com](mailto:meiss32@aol.com)

Donald Jones  
202-364-2740

[dejones@frontiernet.net](mailto:dejones@frontiernet.net)

David Roswell  
410-617-2458

[droswell@loyola.edu](mailto:droswell@loyola.edu)

Charles Rowell  
410-647-9452

[cfrowell35@verizon.net](mailto:cfrowell35@verizon.net)

## Alternate Councilors

Shekar Munavalli, Shirish Shah

Paul Smith, Joseph Topping

## Members at Large

Karen Hatwell, Maurice Iwunze,

Jan Kolakowski, Liina Ladon, James Nwaba

## Committee Chairs

Student Awards (March): George Farrant,

410-455-4120; [gfarrant@ccbcmd.edu](mailto:gfarrant@ccbcmd.edu)

Remsen Award (May/June): Lev Ryzhkov

Braude Award (October): Charles Rowell

Maryland Chemist Award (December):

Shekhar Munavalli, 410-436-2819

[shekar.munavalli@us.army.mil](mailto:shekar.munavalli@us.army.mil)

Maryland Service Award:

Shree Iyengar, 410-541-2266

## Maryland Section on the Web: <http://mdchem.org>

Webmaster: Sandy Young

[chemists4fun@yahoo.com](mailto:chemists4fun@yahoo.com)

Paul Smith, [pjsmith@umbc.edu](mailto:pjsmith@umbc.edu)

## Programs

Archives: Ernie Silversmith, 443-885-3214

Career Planning: Linh Cheong, 410-762-1159

Earth Day: Paul Smith & Sandy Young

Environmental Issues: Shirish Shah, 410-704-2720

[sshah@towson.edu](mailto:sshah@towson.edu) & Sandy Young

Finance Committee: Jan Kolakowski,

410-436-2755, [jan.kolakowski@us.army.mil](mailto:jan.kolakowski@us.army.mil)

Government Relations:

Shirish Shah & Robert von Tersch

Long Range Planning: Shekar Munavalli

MARM: Shirish Shah & Alan Samuels

Membership: Merle Eiss

Minority Affairs: Alfred Amah, 410-602-7164,

[f-amah@mail.vjc.edu](mailto:f-amah@mail.vjc.edu)

Public Relations: Shirish Shah & Walter Roy,

[Walter\\_Roy@mccormick.com](mailto:Walter_Roy@mccormick.com)

Retired Chemists: Alvin Bober, 410-581-5321

Women Chemists/Younger Chemists:

Sara Narayan, 410-602-7326/Amanda Miller

## Educational Programs:

Chemistry Olympiad/Chem-a-Thon:

Shirish Shah & Mike Zapf,

[Mike\\_Zapf@mccormick.com](mailto:Mike_Zapf@mccormick.com)

Continuing Education/High School Education:

Shirish Shah/Ellen Pisciotta

Kids & Chemistry/Chemistry-in-the-Library:

Sue Procell, 410-436-4604,

[suzanne.procell@us.army.mil](mailto:suzanne.procell@us.army.mil) /Sandy Young

National Chemistry Week (NCW):

Shirish Shah & Sandy Young

## Chesapeake Chemist Editor: [cakvt@hotmail.com](mailto:cakvt@hotmail.com)

Cindy Kronman

734 Benfield Road

Severna Park, MD 21146

The Chesapeake Chemist is published monthly September through May by the Maryland Section of the American Chemical Society. Send submissions to the editor in electronic format. The Maryland Section is not responsible for opinions expressed herein. Editorials express the opinions only of the authors. The editor is not responsible for all unsigned material.

# October Dinner Meeting

Wednesday, October 25, 2006, Villa Julie College  
St Paul Pavilion (see map on MD ACS website: <http://mdchem.org>)

6:00-6:45 pm	Cocktail Hour
7:00-8:00 pm	Dinner and Award Presentation
8:00-8:50 pm	Catherine Fenselau Chemistry & Biochemistry Dept. University of Maryland College Park ME <i>"Travels with a Mass Spectrometer"</i> Question and Answer (10 minutes)

Cost for the dinner is \$25.00 for members; \$20.00 for spouses, retired chemists and guests, and \$10.00 for students. For reservations please contact Shirish Shah at 410-323-0803(H) or by email at [dr.shah@juno.com](mailto:dr.shah@juno.com).

**Directions to Villa Julie College:** From the beltway (695), take Falls Road north. At the light (approximately a mile), turn left on to Green Spring Valley Road. Cross the Green Spring Avenue intersection. From there, the college is approximately 2 miles on the left side. The gate for Villa Julie College is soon after the Sisters of Notre Dame Community gate. The meeting will be in Pavilion and there is visitor's parking around the Pavilion area (back of campus).

## Travels with a Mass Spectrometer

Mass spectrometry is an important physicochemical technique that has evolved with significant capabilities in the last two decades. It is used across a broad spectrum of science, from space exploration to screening for diseases to characterization of bioagents in homeland defense. The speaker will relate highlights from her career as a chemical scientist who has contributed to the development of the technique of mass spectrometry, been a leader in its applications in biomedical science, participated in several programs that train undergraduates to do research, as well as graduate and post-doctoral training in three Maryland universities.

**About the speaker...** Catherine Fenselau is professor of Chemistry and Biochemistry at the University of Maryland. Her current research program uses proteomics strategies to study the mechanisms by which cancer cells become resistant to anti-cancer drugs. She is a leader in the development of mass spectrometry for rapid identification of airborne microorganisms. She is associate editor of *Analytical Chemistry* and was the founding editor of *Biomedical Mass Spectrometry* (now *Journal of Mass Spectrometry*). Her awards include the Garvan Medal, Medal of the Pittsburg Spectroscopy Society, the EAS Award for Analytical Chemistry and the Hillebrand Prize of the Chemical Society of Washington. Fenselau received her A.B. from Bryn Mawr College in 1961 and a Ph.D. from Stanford University in 1965.

## Council Meeting Report continued

was the first African American Member of the National Academy of Sciences. These talks were taped and the tape will appear on NOVA in February 2007.

The National ACS office has been developing a very fine training system to help chemists learn to lead. A number of these components will soon be available for use on your home computer. Some parts are best taught in group setting and are so designed. There were 15,603 attendees at the Fall meeting. Budget targets are being met so no increase was suggested for registration fees.

All four of the Section's Councilors were present at the Council Meeting in San Francisco. The Council meeting was fairly quiet. Merle Eiss was reelected to the Committee on Nominations and Elections; Charles Rowell was reelected to the Committee on Committees. Three petitions for changes in the by-laws were under consideration and will be voted on at the Spring meeting. These include: adjusting voting procedures; propose multiyear dues, and would place some restrictions on the nominating process. The balance of the four-hour meeting was spent hearing about the general progress of programs of the Council.



### Fall 2006 - Important Dates



October 22-28 - National Chemistry Week

October 23 – Mole Day (<http://www.moleday.org/>)

Wednesday, October 25 - October Dinner Meeting (Braude Award, Catherine Fenselau)  
Villa Julie College, Stevenson, MD

Wednesday, November 15 - November Dinner Meeting (Green Chemistry)  
Anne Arundel Community College, Arnold, MD

Wednesday, December 13 - December Dinner Meeting (Maryland Chemist of the Year)  
Burkshire Hotel, Towson, MD



### Spring 2007 - Important Dates



February 2007 (Date to be determined) February Dinner Meeting

March 25-29, 2007 Spring 2007 ACS National Meeting & Exposition, Chicago, IL  
(<http://chemistry.org/meetings>)

May 16-18, 2007 Mid-Atlantic Regional Meeting (MARM), Ursinus College, Collegeville, PA  
(<http://www.marm2006.org/>) – Theme: Forging New Connections in Chemistry

## ACS Membership Value

By: Sandra K Young

I have written before about getting value out of your ACS membership. Another tool that National ACS has launched is the RSS tool. RSS stands for rich site summary. It is a feature that is used to track and assemble changes to a website, in this case, the National ACS website and e-mail a short introduction of the article(s) to you. The stories of research and other things all have a link so if you are interested in the story you can link directly to the ACS site to read more. You can sign up for this service by subscribing at the ACS website (<http://chemistry.org>). They have a RSS button - **RSS** - that links you to the description of the service and a 'Subscribe' button.

# October Historical Events In Chemistry

by Leopold May  
Catholic University

- October 21, 1803 John Dalton presented the first experimental evidence for atoms on this date before the Manchester Literary & Philosophical Society.
- October 6, 1807 On this date, Humphry Davy at the Royal Institution isolated potassium.
- October 2, 1908 Walter Baird, an analytical instrument maker, was born on this date. He founded the Baird Corporation that makes spectroscopic equipment and is now part of Thermo Electron Corporation.
- October 5, 1861 The Chemical Society of Union College, the precursor of the American Chemical Society, was founded on this day.
- October 12, 1865 Vladimir A. Kistiakowsky, who was born on this date, was a researcher in electrochemistry and thermodynamics.
- October 16, 1875 Henry C. Sherman, who was born on this date, was a researcher on vitamins.
- October 24, 1877 Roger Clark Wells did research on sodium compounds and chemical analyses of radioactive minerals. He served as the Chief Chemist of U. S. Geological Survey and was born on this day.
- October 8, 1883 Otto H. Warburg, a researcher on respiration and cancer, was born on this date. In 1931, he was awarded the Nobel Prize in Physiology and Medicine for his discovery of the nature and mode of action of the respiratory enzyme.
- October 17, 1890 Unocal incorporated as Union Oil Co. of California, on this date.
- October 25, 1891 Edgar C. Britton, who was born on this date, contributed to industrial organic developments.
- October 14, 1898 John M. Gulland, who did research on DNA, was born on this date. He also used electrometric titration to prove existence of hydrogen bonds and studied the titration of phosphoric acid.
- October 30, 1906 One hundred years ago, Max Tishler was born on this date. He was an industrial chemist who developed antibiotics, including actinomycin and streptomycin and synthesized vitamin A and riboflavin.
- October 18, 1912 Hercules was incorporated on this day.
- October 29, 1923 Carl Djerassi, a researcher in structure elucidation of natural products, was born on this date. He synthesized medicinals, and applied computer artificial intelligence to chemical problems. In addition, he writes novels and plays.
- October 1, 1940 Air Products and Chemicals, Inc., was incorporated on this day.
- October 23, Any Year Mole Day (<http://www.moleday.org/>), 6.02 a.m. through 6.02 p.m. (Mole time); Mole Moment: 50.453 s after 6.42 p.m.

More Historical Events may be found at Dr. May's website: <http://faculty.cua.edu/may/may.htm>.

An informal association, Society for the Propagation of the Music of the Chemist-Composers, has been formed to publicize the music of chemist-composers. For information, see <http://faculty.cua.edu/may/SPMCC.htm>

# National Chemistry Week

**What:** American Chemical Society (ACS) sponsored – National Chemistry Week (NCW)  
(<http://chemistry.org/ncw>)

**When:** October 22-28, 2006

**2006 Theme:** “It’s Your Home: It’s All Built on Chemistry”

NCW is a community-based program sponsored by the ACS. The goal of the program is to reach out to the public, especially elementary and middle school aged children, with a positive message about chemistry/science.

Every year groups of dedicated scientists/volunteers/SA-ACS from the Maryland Section of the ACS take the NCW mission on the road, and visit schools and libraries all over Maryland during October & early-November. Students learn science best by DOING; therefore, visits focus on leading students through 3-4 hands on experiments that are related to the NCW theme.

Some NCW Chemistry-in-the-Library events that might be going on near you:

- Sat., October 14<sup>th</sup> from 2-3pm – Glenwood Library (Howard County)  
– JHU student affiliates are assisting with this session
- Wed., October 18<sup>th</sup> from 4:30-5:30pm – Bel Air Library (Harford County)  
- ECBC scientists are running this session
- Fri., October 20<sup>th</sup> from 2-3pm – Savage Library (Anne Arundel County)
- Sat., October 21<sup>st</sup> from 2-3pm – Elkridge Library (Howard County)
- Tues., October 24<sup>th</sup> from 4:30-5:30pm – Edgewood Library (Harford County)  
- ECBC scientists are running this session
- Sat., November 4<sup>th</sup> from 2-3pm – Walkersville Library (Frederick County)

Stop in and join us if you have time!!

Want to volunteer for Chemistry-in-the-Library or National Chemistry Week? Contact Sandy Young at [chemists4fun@yahoo.com](mailto:chemists4fun@yahoo.com).

Other NCW events:

- Towson University Student Affiliates are running 3-days of NCW sessions at Lutherville Lab in late-October and going to work with an estimated 400 students!
- Morgan State Student Affiliates are joining Army Research Lab scientists at Moravia Park Elementary and working with approximately 150 students!
- Army Research Lab scientists are scheduled to go out to 10 schools (in Baltimore City, and Baltimore, Cecil, and Harford Counties) over a period of 3-weeks to work with an estimated 1,500 students!

**Let us know about YOUR National Chemistry Week event!**

## 2007 MD ACS Ballot

Below is the ballot for the 2007 Maryland Section Executive Committee.

Please mark the ballot and then place it in an envelope, with your name written on the outside of the envelope. Mail your sealed ballot to Dr. Shirish Shah, c/o Chemistry Department - Smith Hall, Towson University, 8000 York Road, Towson, MD, 21252. The ballots will be counted by the secretary of the Maryland Section for the official count.

Chair-Elect: Walter Roy \_\_\_\_\_

Secretary: Sara Narayan \_\_\_\_\_

Treasurer: Angela Sherman \_\_\_\_\_

Members at Large:

Karen Hatwell \_\_\_\_\_

Maurice Iwunze \_\_\_\_\_

Liina Ladon \_\_\_\_\_

Angela Winsteadt \_\_\_\_\_

Takashi Tsukamoto \_\_\_\_\_

\_\_\_\_\_

No Councilors/Alternate Councilors need to be elected this cycle as their terms are continuing.

If you want to get involved with the Maryland Section Executive Committee and/or with section activities, we want to hear from YOU! Please feel free to contact the chair, vice-chair, or chair-elect via e-mail to get more information on various areas/activities that we would like to start or expand in the future. The amount of time to commit would be up to you but might be around 2-4 hours per month, depending on the activity. We are always looking for individuals with budget/financial, editing, and planning skills.



**micron inc.**  
ANALYTICAL SERVICES

### MATERIALS CHARACTERIZATION

MORPHOLOGY    CHEMISTRY    STRUCTURE

OM / SEM / EDXA / TEM / SAED, EPA / WDXA,  
XRF / ESCA / AUGER / XRD  
DSC / TGA / MFTIR

3815 LANCASTER PIKE WILMINGTON DE 19805  
Voice 302-998-1184, Fax 302-998-1836

E-Mail [micronanalytical@compuserve.com](mailto:micronanalytical@compuserve.com)

WEB PAGE : [www.micronanalytical.com](http://www.micronanalytical.com)