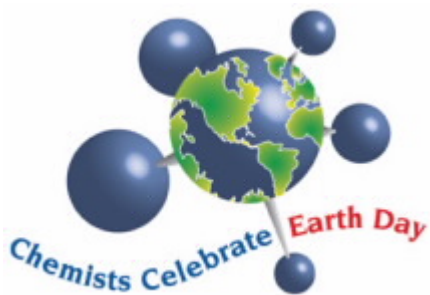


Mid-Hudson Chemist
American Chemical Society
Department of Chemistry
SUNY New Paltz
1 Hawk Drive
New Paltz, NY 12561



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April 22, 2009
Air – The Sky's the Limit

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~Join the Mid-Hudson ACS Discussion List~

The following website may be used to subscribe, unsubscribe, or view the archive:

<http://lists.msmc.edu/mailman/listinfo/acs-mh>

To post a message to all the list members, send e-mail to acs-mh@lists.msmc.edu.

Lectures at SUNY New Paltz – Spring 2009

The following lectures will be held in the Coykendall Science Building (CSB) at SUNY New Paltz this spring as part of the School of Science and Engineering Colloquium Series. For more information about these lectures, visit <http://www.newpaltz.edu/sse>. There is a reception at 3:30 PM in CSB 110 (Lounge) with the lecture at 4:00 PM in the CSB Auditorium. For directions to SUNY New Paltz, visit <http://www.newpaltz.edu/about/directions.html>.

March 26

Making the Case for Solar Energy in New York
Dr. Richard Perez, University at Albany

April 23

Math Used to Solve Crimes
Dr. Mark Bridger, Northeastern University

Hudson Valley Science Café

A Science Café is a monthly gathering in a café, pub or restaurant, open to the public, with a short presentation of a topic followed by discussion. The essence of a Science Café is informality, with groups seated around tables with food and drink to encourage conversation. Hudson Valley Science Café usually meets on the 4th **Wednesday** of the month, except where noted.

Website: <http://www.cafescientifique.org/hudsonvalley.htm>
Meeting site: Diana's, 1015 Little Britain Road (Route 207) in New Windsor (just east of Stewart Newburgh Airport, on the opposite side of the road from the airport entrance).

Visit <http://www.dianasny.com> for menus and map. \$3.00 admission fee includes coffee or tea. If you arrive at 6 PM, you can order from the Early Bird menu. No orders are taken during the Presentation (7:00-7:30 PM).

February 25, 2009

"High Value Synthesis Gas from Residual Materials Using an Advanced Gasification Process"

Mark A. Paisley, PE., VP of Research and Development, Taylor Biomass Energy LLC., Montgomery, NY

March 25, 2009

"Junk Science in a Democratic Society: Why Environmental NGOs Give a Free Pass to Bogus Research on Global Warming"

Irwin Sperber, Ph.D., Assoc. Professor, Sociology Department, SUNY New Paltz

April 22, 2009

"Fine Particle Components in Outdoor Air: Exposures and Health Effects"

Morton Lippmann, Ph.D., Professor, Nelson Institute of Environmental Medicine, NYU Langone School of Medicine, Tuxedo, NY

May 27, 2009

"Computer Memories - Present State and Future"

Janusz Nowak, Ph.D., Physical Science Department, T. J. Watson Research Center, IBM, Yorktown Heights, NY

Hudson Valley Science Café has received start-up funds from WGBH-NOVA and the American Chemical Society. To suggest a speaker (yourself included), please contact Dr. Toby Rossman (tobyrossman@yahoo.com).

The Mid-Hudson Section of the American Chemical Society
and
The Department of Science, Engineering and Architecture of
Orange County Community College

Announce

Gangliosides of Smooth Muscle Cells in Culture: Effect of Ascorbate

Dr. Joseph A. Skrivanek
Professor and Chair of Chemistry and Biochemistry
Director of Baccalaureate and Beyond Center
Purchase College, SUNY

Wednesday, February 25, 2009
7:00 PM

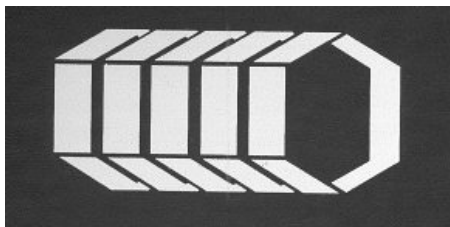
Horton Hall, Room 1
Orange County Community College, Middletown, New York
(Refreshments at 6:30 PM)

Contact: Tim MacMahon at 845-341-4575 or by e-mail at timothy.macmahon@sunyorange.edu

About the lecture: Gangliosides are a family of sialic acid-containing glycolipids found in high concentrations in neurons and in lower levels in other vertebrate tissues. Significant quantitative and qualitative differences have been noted in relation to both organ and species. In extra neural tissues, these glycolipids may mediate cell adhesion to the extracellular matrix, possibly through interaction with fibronectin. Previous work has shown that ascorbate supplementation leads to the formation of an extracellular matrix consisting primarily of collagen and that this matrix influences the biosynthetic capabilities of the cell. In the work to be described, the ganglioside composition of calf aortic smooth muscle cells, cultured in the presence and absence of ascorbate, was analyzed. Ascorbate supplementation resulted in increased ganglioside sialic acid levels and a change in chromatographic profile involving both absolute and relative increases in GD1a. These findings will be discussed in relation to the proposed role of gangliosides as mediators in the interaction of various cells with extracellular matrix.

About the speaker: Dr. Joseph Skrivanek received his Bachelors and Masters degrees in Chemistry from the University of Scranton in 1970 and 1971, respectively. He received his Ph.D. in Biochemistry from the Pennsylvania State University in 1975. After his postdoctoral work in the Neurology Department at Albert Einstein College of Medicine, he became Assistant Professor of Chemistry at Purchase College in 1979. During his tenure at Purchase, Dr. Skrivanek has served as Chair of the Chemistry Department and was Dean of the Natural Sciences for twelve years from 1992 to 2004. In 2004, Dr. Skrivanek stepped down to spend more time on a new venture he started as Dean, the Baccalaureate and Beyond Transfer Center. In addition, Dr. Skrivanek has just started a new Biochemistry program at Purchase, which he now chairs. Dr. Skrivanek's research interests are centered on the structure, function, and metabolism of a family of glycolipids called gangliosides. Named for their original discovery in ganglion cells or neurons, these glycolipids are ubiquitous and found in the membranes of all cells and tissues. Although his early work was focused on gangliosides of nervous tissue, his more recent work deals with their role in extra neural tissues. Dr. Skrivanek's talk will focus on the role of these glycolipids as modulators of extracellular agents in muscle cells.

Directions to Orange County Community College: The Middletown campus is located at 115 South St. From I-84 West: Take Exit 3W, Route 17M (Middletown), then proceed on 17M which becomes Dolson Avenue. Continue on Dolson Avenue to Bennett Street, turning left on Bennett to the top of the hill (South Street). Bear right to the Middletown Campus. From the Thruway: Take Exit 16 (Harriman) to Route 17 West to Exit 123 (Middletown). Follow 17M (to Middletown) which becomes Dolson Avenue. Continue on Bennett, turning left on Bennett to top of hill (South Street). Bear right to Middletown campus. Detailed directions and campus map are available at <http://www.sunyorange.edu/directions/middletown.shtml> .



Attention: High School Teachers and Students

The Mid-Hudson Section of the American Chemical Society will be participating in the International Chemistry Olympiad for 2009. We are starting the selection process to choose 10 participants from the Mid-Hudson Section. These 10 participants will take the National Chemistry Olympiad qualifying exam on Saturday, April 25th at Mount Saint Mary College. Part of the National exam will consist of a laboratory practical section, as in past years. Twenty students will be chosen nationally from the results of the national exam to participate in a study camp at the U.S. Air Force Academy in Colorado Springs in June. From these students, the national team will be selected to represent the U.S. in **Cambridge, England** in July.

To select our 10 students, we will hold Local ACS Section qualifying exams, which will be administered at your school, should you choose to participate. If you feel that your school has students who can compete in the Local Section exams, or you are a high school student who would like to participate, please let us know. More information can be found at www.chemistry.org/education/olympiad.html.

We encourage you to take part in this exciting program! Contact Lynn Maelia by phone: 845-569-3131, fax: 845-562-6762, e-mail: maelia@msmc.edu or mail at Mount Saint Mary College, 330 Powell Avenue, Newburgh, New York 12550.

Call for Applications for 2009 Undergraduate Student Research Awards

The Mid-Hudson Section of the American Chemical Society invites applications for 2009 Undergraduate Research Awards from student researchers who plan to present their work at the 2009 undergraduate poster symposium. Six students will be selected to each receive a \$100 award. *Applications for research awards are not a requirement for attending and presenting at the poster symposium.*

Rationale

The Mid-Hudson Section wishes to reward undergraduates who participate in good quality research and plan to present at the poster symposium by providing small grants to allow students to present at a regional or national conference.

Criteria

Research work should be completed by a student currently enrolled (2008-2009 academic year) as an undergraduate at one of colleges in the Mid-Hudson ACS area. Students must also present their work at the 2009 Mid-Hudson ACS Undergraduate Research Poster Symposium.

Application Procedure

Applicants must submit a short (2 page maximum) summary of their research work aimed at an audience with college level chemistry knowledge. Applicants should include a brief background, relevant results, and possible significance of the research to the wider community. The summary should be written in normal scientific format and divided into appropriate sections (Introduction, Experimental, Results and Discussion, Conclusion, Acknowledgements, and References). *Clearly identify the **one** student* currently enrolled (2008-2009 academic year) as an undergraduate at one of colleges in the Mid-Hudson ACS area applying for the URS Award on the submitted paper. Applications should be sent along with the poster abstract to Dr. Lynn Maelia, e-mail: maelia@msmc.edu by April 4, 2009, in electronic format (as a WORD document or pdf).

10th Annual ACS Undergraduate Chemistry Research Symposium

Friday, April 24, 2009

4:00 – 8:30 PM
Mount Saint Mary College
Aquinas Hall

Poster Session: 4:00 – 5:30 PM
(Poster set-up starts at 3:30 PM)
Talk: 5:45– 6:45 PM (open to all)
Dinner: 7:00 PM (reservations required)

Guest Speaker: Dr. Eric Block, University at Albany
“Chemistry in a Salad Bowl”

The Mid-Hudson Section of the American Chemical Society is pleased to announce the tenth annual Undergraduate Chemistry Research Symposium to be held at Mount Saint Mary College on Friday, April 24, from 4:00 PM to 8:30 PM. The symposium provides a chance for area undergraduate students in the chemical sciences to present their research. All areas of chemistry, environmental science, molecular biology, and related fields are welcome. The poster presentations will be held from 4:00-5:30 PM, followed by a guest speaker at 5:45 PM.

The Symposium: The symposium will be held from 4:00 PM to 8:30 PM. Set-up must be completed by 4:00 PM. As in previous years, all research will be presented as posters. To present a poster, please submit an abstract of 200 words or less. The format for the abstract should adhere as closely as possible to the following guidelines: 1) 12 point Times-Roman font, 2) One inch margins, 3) MS Word document, 4) The abstract title should be typed in capital letters, followed by the authors' names and institution name, institution address, and telephone number in lower case letters. Advisor's name should be followed by an asterisk (*). **Please submit the abstract no later than Friday, April 10th by e-mail to Dr. Lynn Maelia.** If you are unable to meet this deadline, please contact Dr. Maelia by phone or e-mail. Poster easels will be available for the first 35 participants; tables will also be available. Your poster should be self-supported on cardboard or posterboard backing. The standard size for ACS posters is 48 inches wide by 36 inches high. Please note: there will be a \$25 conference fee per poster up to \$100 maximum per school. Please submit your abstract, via e-mail to:

Dr. Lynn Maelia
Phone: 845-569-3131
E-mail: maelia@msmc.edu

Dinner: Salad, Chicken Picatta, Eggplant Rollatini, roasted vegetables, orzo with herbs, dessert: \$20. Please make reservations with Dr. Lynn Maelia by **Friday, April 17.** Dinner will follow the guest lecture at 7 PM.

Directions:

From the West

From the west take I-84E to Exit 10. At the bottom of the ramp take a right onto 9W South. At the first traffic light take a left onto North Plank Road. (You'll see a large Sunoco gas station at this intersection.) Stay on North Plank Road 1/4 mile and turn right at the first traffic light onto Powell Avenue. The College is about 1/4 mile further on your left.

From the North or South

Take the Garden State Parkway or Route 17 North to the New York State Thruway (I-87N-Albany). Follow the Thruway to Exit 17-Newburgh. Take I-84E and follow the directions for traveling to campus "From the West."

From the East

If you're traveling to campus from the east take I-84W to the second exit after the Newburgh-Beacon Bridge (Exit 10S). At the bottom of the ramp make a right onto Route 32 and then another right at the first traffic light onto 9W South. At the second traffic light, take a left onto North Plank Road. (You'll see a large Sunoco gas station at this intersection.) Stay on North Plank Road 1/4 mile and turn right at the first traffic light onto Powell Avenue. The College is about 1/4 mile further on your left.

Upcoming March Talk at Vassar College

The Chemistry Department of Vassar College and the Mid-Hudson ACS will sponsor an informal Science Café-style talk by Jeff Kivi on Thursday, March 26th at 7 PM in the Student Center (second floor of the All-Campus Dining Center). The topic of the talk will be Industry vs. High School Teaching. More information about this talk will be sent to the MH-ACS mailing list.

To subscribe to the list, visit

<http://lists.msmc.edu/mailman/listinfo/acs-mh>.

Directions: Vassar College is located off Raymond Avenue in Poughkeepsie, NY. Refer to the following link for driving directions and campus map:
<http://www.vassar.edu/visitors/index.html>.

Enter the Main Entrance of the campus on Raymond Avenue and go left to find the North Parking lot. The All-Campus Dining Center is adjacent to this lot. The Security Guard at the Main Entrance will direct you to parking. The Student Center is on the second floor of the All-Campus Dining Center.

Attention Present/ Past/ Future Boy Scout Leaders

Were you a Boy Scout as a youth? Are you a current Boy Scout leader? Are you a current Scout MERIT BADGE COUNCILOR?

The Mid Hudson ACS is looking for you if you meet any of the former criteria and you are interested in making a difference in Boy Scout troops in a troop near you! We are seeking volunteers who would be willing to work with other interested staff to create programs for boys of local troops in earning various science related merit badges. If you are already a councilor, the ACS is interested in your special skills as we try to expand our love and knowledge of Chemistry to a younger generation of youth. If you are not already a councilor but wish to take part in this effort, or if you know of groups of youth who would be interested in learning more about Chemistry from some of the world renowned scientists that the Mid Hudson ACS has to offer, then we also want to hear from you. Other youth oriented groups (both boys and girls) may also be interested in such a program, and if so, let us know.

The newly reinvigorated Younger Chemists Committee (YCC) is looking to make an impact on the younger members of our community. Science, and especially Chemistry, is all around us, and learning about it can be rewarding both for children and for the members of the scientific community who have the opportunity to share it with others. If you have any questions, or any interest in any of these opportunities, feel free to contact the YCC chair George Ruger at gruger04@yahoo.com or any of the ACS section officers.

Dutchess County Regional Science Fair

A message from Patti Cusatis: The 2009 Dutchess County Regional Science Fair will be held on Saturday, April 4th. The Mid-Hudson Section has participated in this Fair for many years. I am now looking for volunteers to help with the judging for the special awards presented by our section. I am also looking for someone to coordinate the events that day - all the preparation will be done. The judging will start at about 9:00 AM and must be completed by 1:00 PM. We will be judging all the projects which are related to chemistry. The number varies every year, but we typically judge about 60 - 70 exhibits. There are judging criteria which we use as a guideline in our review of each project. If you have never taken part, I think you will find it to be a rewarding experience. The students are very receptive to the ideas and comments from professionals and appreciate the time given to their efforts. Please contact me by e-mail (patti.cusatis@ciba.com) or by phone at 914-785-2970 (daytime) or 845-569-1359 (evenings). Thank you.

50-, 60-, and 70- Year Members Save the Date

This year, the Mid-Hudson Section will honor several members celebrating 50-, 60-, and 70- year ACS membership. The honorees will be guests of the Mid-Hudson Section at the Research Symposium on April 24th. Formal invitations will be mailed. Please save the date!



The Mid-Hudson ACS Section Celebrates Earth Day Air—The Sky's the Limit

The Mid-Hudson section is once again going to take part in the ACS Chemists Celebrate Earth Day celebration. As part of this celebration, we will be participating in an Illustrated Haiku Contest. The details and theme ideas for the national contest can be found on the next page. The top entry from our section in each of the four age categories, K – 2nd grade, 3rd – 5th grade, 6th – 8th grade, 9th – 12th grade, will be entered in the national contest. There will also be prizes from the Mid-Hudson ACS for the top entries in each category. To each participating school: Please send your top three entries for each age category to Patti Cusatis (patti.cusatis@ciba.com) by Monday, March 16, 2009 to the address below. Please pass this on to any K-12 educators that would be interested.

Patti Cusatis
Ciba Specialty Chemicals
540 White Plains Road
Tarrytown, NY 10591
914-785-2970 (daytime)
845-505-0825 (evenings)



**Illustrated Haiku Contest
Chemists Celebrate Earth Day:
Air—The Sky's the Limit**

As part of their Chemists Celebrate Earth Day celebration, the American Chemical Society (ACS) is sponsoring an illustrated haiku contest for students in grades kindergarten-12.

A haiku is a three-line poem with five syllables in the first line, seven in the second, and five in the third. Haikus typically have nature-related themes and do not rhyme, as in the example below.

*Submerged rocks stare back
through the glistening water
streaming clean and clear.*

Possible topics related to the atmosphere and chemistry include:

- Wind flowing through valleys, canyons, and over mountains.
- Gas Phases—water vapor or steam.
- Properties of Gas—temperature, density, pressure
- Air Pollutants—fumes from cars and factories
- Environmental chemistry—keeping the air clean.
- Wind Power— conversion of wind energy.
- The various layers of the atmosphere.

Winners will be selected in each of the following categories:

- K – 2nd grade
- 3rd – 5th grade
- 6th – 8th grade
- 9th – 12th grade

National Prizes:

1st Place in each grade category – \$250

2nd Place in each grade category – \$150

For more information about contests in your area, contact the American Chemical Society Office of Community Activities at 800-227-5558, x6097 or earthday@acs.org.

**Chemists Celebrate Earth Day
Illustrated Haiku Contest**

ACS Local Sections are encouraged to participate in the Chemists Celebrate Earth Day (CCED) illustrated haiku contest by inviting area K–12 grade students to compete.

Contest Rules:

- Poems must conform to the haiku style. Students in grades K-2 may be more free with their syllables; however, no poem may be longer than 25 words.
- The topic of the haiku and the illustration must be related to the CCED theme, "Air- The Sky's the Limit" and should reflect some aspect of atmospheric

science from the possible topics listed, including the responsible use and care for this limited and valuable resource.

- All entries must be original works without aid from others.

- Each poem must be submitted and illustrated on an unlined 8.5" x 11" sheet of paper (of any type). The illustration must be created by hand using crayons, watercolors, other types of paint, colored pencils or markers. The text of the poem should be easy to read and may be printed with a computer, before the hand-drawn illustration is added, or the poem may be written on lined paper which is cut out and pasted onto the unlined paper with the illustration.

- Only one entry per student will be accepted.

- All entries must have the following information included with the entry: **student's name, grade, home address, telephone number, school name, school address, teacher's name, e-mail, and school telephone number (both addresses are used for sending prizes; please provide complete information).**

- All illustrated haikus and/or digital representations of the haikus become the property of the American Chemical Society.

- Acceptance of prizes constitutes consent to use winners' names, likenesses and entries for editorial, advertising and publicity purposes.

Coordinator Information:

- ACS CCED Coordinators determine how many entries per school will be accepted into the local contest.

- ACS CCED coordinators will identify and submit a maximum of one winning entry in each of the four (4) grade categories to the national contest (entries from areas not covered by any ACS Local Section's territory will be handled on a case-by-case basis).

- When coordinators submit entries to the national contest, the following information must also be included with each entry: local section name, coordinator name and e-mail address.

- National contest entries must be received by the ACS in Washington, DC by Friday, April 10, 2009. National winners will be announced on or before April 22, 2009.

- ACS is not responsible for lost, damaged, or delayed postal shipments and electronic submission is encouraged.

Entries will be judged based upon:

- Relevance to and incorporation of "Air—The Sky's the Limit" theme
- Word choice and imagery
- Colorful artwork
- Adherence to haiku style
- Originality and creativity
- Overall presentation