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George Rodriguez 2015 New York Section Outstanding Service Awardee



Above, New York Chair Alison Hyslop Presents Outstanding Service Award to George Rodriguez.

(See article on page 5.)

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THIS MONTH IN CHEMICAL HISTORY

Harold Goldwhite, California State University, Los Angeles • hgoldwh@calstatela.edu

I recently received an impressive new biography, the first full-length study, of the early 19th. century English scientist William Hyde Wollaston. The author, Melvyn C. Usselman, is Professor Emeritus in the Department of Chemistry at the University of Western Ontario, and has published many articles on Wollaston and his contemporaries. This column is not my first review of Wollaston's career. I have given a number of talks on this interesting scientist, and I wrote a column on his career that appears in my collection of chemical history sketches (A Chemical Chrestomathy: Chemical History Sketches Vol.1: Chemists, 2012, Amazon books). Usselman's fascinating book has given me further insights into Wollaston's life and career and I will devote some columns to this important 19th century scientist. The title of this new biography is "Pure Intelligence" drawn from a remark made by William Whewell who described a conversation with Wollaston thus: "It was like talking to pure intelligence".

To start with perhaps the most significant of Wollaston's chemical achievements it suffices to say that in addition to discovering two new elements, palladium and rhodium, he perfected a new technology, powder metallurgy, by which he was able for the first time to prepare consistently malleable metallic platinum and make it an article of commerce. This discovery netted him a sizeable fortune.

Wollaston was born on August 6, 1766, in Norfolk, one of a large family. His father was an Anglican vicar, and his Wollaston forebears and near relations included many men of distinction. His greatgrandfather, also William, wrote a treatise on "The Religion of Nature Delineated" printed privately in 1724 which was reprinted in several editions and argued that natural morality did not require divine revelation – an unorthodox view at the time. William's grandfather Francis became a Fellow of the Royal Society as did his two great-uncles. At that time this was simply an indication of an interest in science, not necessarily any distinction in its pursuit. Wollaston's uncles included M.D.s one of whom became physician to the Royal household. (Curiously this uncle died relatively young from an infection he picked up while dissecting a mummy!) Although Wollaston's father was a vicar, he was, like his grandfather, unorthodox in his beliefs and he finally gave up the church. He became an expert astronomer and published a number of articles in "Philosophical Transactions", the journal of the Royal Society.

William Wollaston was educated at Charterhouse School in London, a well-known public school (in the English sense) and entered Gonville and Caius (pronounced "keys") College in Cambridge in 1782 to embark on medical studies. He gained his Bachelor of Medicine (MB) degree in 1788. During this period his older brother Francis John was at Sidney Sussex College in Cambridge where he became Senior Wrangler (top mathematics student) and, in 1792, Professor of Natural Philosophy, i.e. science. Incidentally the MB curriculum at that time was unstructured, and its holder would not necessarily know much about medicine. A contemporary note by Wollaston shows where his interests lay: "[he] applied himself to the study of the Principia of Newton, and the mathematical branches of Natural Philosophy." He also attended lectures in chemistry by Isaac Milner, his brother's predecessor in the Chair of Natural Philosophy. That course included many experiments. Wollaston also developed a deep interest in botany.

While at Cambridge Wollaston met Smithson Tennant, a fellow student, who was well versed in the chemistry of the day, had travelled widely, and had met with many distinguished European chemists including Scheele, Berthollet, and de Morveau. In Sweden Tennant was taught the use of the blowpipe by Gahn, and he applied this technique in Germany with Crell in an unsuccessful attempt to purify platina, an ore containing platinum. This may have been the spark that ignited Tennant's and later Wollaston's interest in platinum.

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Despite coming from very different backgrounds - Tennant was 5 years older and an orphaned only child who was financially independent – the two men shared an interest in science, and Wollaston's desire to learn more chemistry was perhaps inspired by Tennant's understanding of the subject. Tennant was ahead of his time in accepting Lavoisier's new views on combustion and chemistry by the mid-1780s. Lavoisier's full exposition of his views was published in his 'Traite Elementaire de Chimie' in 1789. Tennant and Wollaston finally formed a partnership that was to prove important in the history of chemistry. And that story will be continued in my next column.

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Address advertising correspondence to Advertising Manager. Other correspondence to the Editor.

May Calendar

NEW YORK SECTION

Wednesday, May 4, 2016 LIACS High School Awards Ceremony See page 10.

Thursday, May 5, 2016 Chemical Marketing & Economics Group See page 10 and flyer on page 22.

Saturday, May 7, 2016 Undergraduate Research Symposium See pages 11.

Wednesday, May 25, 2016 Organic Topical Group See page 12.

also

Thursday, June 2, 2016 Chemical Marketing & Economics Group See flyer on page 23.

Friday, June 3, 2016 New York Section Board Meeting See page 10.

Thursday-Sunday, June 9-12, 2016 MARM 2016 See pages 12-15 and 24.

NORTH JERSEY SECTION

Monday, May 9, 2016 Careers in Transition See page 16.

Tuesday, May 24, 2016 North Jersey Section Annual Awards and Recognition Dinner See page 17.

also

Friday, September 2, 2016 North Jersey Section Executive Committee Meeting See page 16.

Deadline for items to be included in the June 2016 issue of *The Indicator* is

April 28, 2016

The Indicator is posted to the web on the 15th of the previous month at

www.TheIndicator.org



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George Rodriguez, New York Section Outstanding Service Awardee

George Rodriguez, Director at Argeni LLC, a technology and business consultancy, is the winner of the 2015 Outstanding Service Award of the ACS New York Section. This award recognizes the efforts of the members of the New York Section who provide their time, leadership skills and dedicated service to promote high quality programs that contribute to the excellence of the Section. Mr. Rodriguez has greatly enhanced the visibility of the Section's Chemical Marketing and Economics (CM&E) Topical Group and has developed a vibrant series of events and presentations related to the chemical industry. The Award was presented to George in January 2016 at the Annual Sectionwide Conference, held at St. John's University.

While chairing CM&E from 2009 to 2015, George created the Global Leadership Awards Program, honoring outstanding figures in industry and finance related to the business of chemistry. Under his leadership, the activities of CM&E led directly to two ChemLuminary Awards for the NY section. The 2012 Global Leadership Awards event won the ChemLuminary Award for Global Engagement. CM&E assisted with the formation of the ACS Peru International Chapter, sending a Ph.D. student who also supported the Festival de Quimica, attracting approximately 500 participants from area elementary, middle and high schools and leading to a 2015 Global Engagement ChemLuminary for the NY Section. His business acumen and fundraising skills resulted in substantial increases in revenues, leading to considerably increased support of STEM programs such as ACS Scholars and K-12 Chemistry Festivals.

In addition to his leadership of CM&E, George has served on the NY Section Board of Directors since 2010, as an Alternate Councilor, as Co-Chair of the Public Affairs Committee, and as a member of the Information Technology Committee. In 2014 he was named the New York Section's Outreach Volunteer of the Year.

George has contributed a great deal of time and energy to many activities of the New York Section, and to the growth of the section's Chemical Marketing and Economics Topical Group. His service to the Section is truly outstanding and we thank him again for all his hard work and dedication.



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Nichols Symposium in Review

On March 4, 2016, the William H. Nichols Medal Award for 2016 was presented to Professor Stephen L. Buchwald, the Camille Dreyfus Professor of Chemistry, of the Massachusetts Institute of Technology during the Nichols Medal Award Presentation and Dinner held at the Crown Plaza Hotel, White Plains, NY. Dr. Buchwald received the Nichols gold medal for "For His Landmark Contributions in Organometallic Chemistry, Ligand Design, and Catalysis." In attendance were 290 local industrial chemists, students and faculty members. Forty colleges and universities in the New York Section were represented.



The William H. Nichols Medal Award was established in 1902 by Dr. William H. Nichols to honor a chemical scientist for outstanding orig-

inal research and was first awarded in 1903, making it the first award presented by the American Chemical Society. Dr. Nichols, a charter member of the American Chemical Society and its president in 1918 and 1919, maintained a deep commitment to research and development and to the importance of supporting science education and students of chemistry. Since its inception, through an endowment fund, the New York Section administers the award. It has been perpetuated through the support of Dr. Nichols, his family and the Nichols Foundation, Inc.

The Nichols Distinguished Symposium, that preceded the award dinner, was titled "The Development and Applications of Modern Methods in Organic Synthesis." It featured internationally known speakers: Prof. Timothy F. Jamison (Massachusetts Institute of Technology), Prof. M. Christina White (University of Illinois Urbana-Champaign), Dr. Joel C. Barrish (Achillion Pharmaceuticals, Inc.) and Medalist Prof. Buchwald who presented the Award Lecture titled "Palladium-Catalyzed Carbon-Heteroatom Bond-Forming Reactions." Dr. Brian R. Gibney, 2016 Chair-elect of the New York Section, led the symposium – welcoming the attendees and introducing each speaker. The attendees enjoyed the high quality of the symposium and the networking atmosphere of the award banquet.

At the Nichols Medal Award Dinner, Dr. Alison G. Hyslop, 2016 Chair of the ACS New York Section, welcomed and thanked the guests, introduced the dais and related the History of the Nichols Medal. The Section was very honored to have Dr. Donna J. Nelson, President of the ACS, offer greetings and congratulations from the American Chemical Society. The Section was also happy to have in attendance Dr. Thomas Donnelly, CEO and Executive Director of the ACS. Prof. David W. C. MacMillan of Princeton University offered an interesting and entertaining introduction of his good friend and colleague Prof. Buchwald. Dr. Hyslop then awarded the gold medal, a bronze replica, and \$5000 to Dr. Buchwald, who was accompanied by his wife, Susan Haber. Following the ceremony many students eagerly met with the Medalist for conversation and photographs.

Members of the Nichols family also participated in this special event, along with many former chairs of the New York Section and members of the Section's Board of Directors. On behalf of the ACS and the New York Section, Dr. Brian Gibney presented a P3 Salute to Excellence Plaque to the Nichols Foundation President, Sandra Nichols Nash, to recognize the Foundation's unwavering commitment to improving the public's perception of chemistry - through the William H. Nichols Medal Award, the Nichols Teacher Award and the William H. Nichols Fellowship Programs.

At the dinner, the Nichols Research Fellows for 2015, Diego Prado of Hofstra University and Natalie Thulin of Barnard College, were introduced. Their research, during the summer of 2015, was sponsored by the Nichols Foundation, Inc. The William H. Nichols Fellowship Award, first introduced in 2015 supports, annually, two undergraduate students for summer science research in a New York academic institution. Also introduced were the two Siemen Competition Finalists from Manhasset High School, Christine Yoo and Kimberly Te. Their families and Research Mentor, Alison Huenger, accompanied them to the Award banquet.

The 2016 Nichols Meeting surely was a successful and grand event enjoyed by many!

THE INDICATOR-MAY 2016



Dr. Buchwald and his wife, Dr. Susan Haber, meet with Nichols Foundation President Sandra Nichols Nash.

(All photos courtesy of Besiana Kurti)



The NY Section was honored to have ACS President Dr. Donna J. Nelson and ACS Executive Director Dr. Thomas L. Connelly, celebrate with them.



Speakers at the Nichols Distinguished Symposium with NY Section Executive Officers. Left to **Right: Dr. Alison** Hyslop (2016 NY Section Chair), Dr. M. Christina White, Medalist Dr. Stephen Buchwald, Dr. Timothy Jamison, Dr. Joel Barrish, Dr. Brian Gibney (2016 NY Section Chairelect).



Chair-elect Dr. Gibney, Dr. White, Dr. Susan Haber, Dr. Buchwald, Mrs. Sandra Nichols Nash (President of the Nichols Foundation), Dr. Jamison, Dr. Barrish, Dr. David MacMillan (Medalist's Introducer), Chair Dr. Hyslop, Dr. Tom Connelly (ACS Executive Director), and Dr. Peter de Rege (Chair's husband).

THE INDICATOR-MAY 2016



Dr. Hyslop presented the medal to Dr. Buchwald for his "Landmark Contributions in Organometallic Chemistry, Ligand Design, and Catalysis."



Dr. Buchwald celebrates with his wife, Susan.



Dr. Alison Hyslop welcomed and thanked the guests at the Nichols Medal Award Dinner, after which she read the History of the Nichols Medal.



St. John's University's table. Forty New York Section colleges and universities sent students to experience the William H. Nichols Symposium and Medal Award Dinner.



Medalist happily posed for photographs with students and faculty – here with Queensborough Community College.

THE INDICATOR-MAY 2016



Dr. David MacMillian offered an entertaining introduction of his friend and colleague Dr. Buchwald.



Chair-elect Dr. Brian Gibney presented Sandra Nash of the Nichols Family a P3 (Partners for Progress & Prosperity) Salute to Excellence award to recognize the Nichols Foundation's century long partnership with the ACS and New York Section and their unwavering commitment to improving the public's perception of chemistry.



Over 290 attendees enjoyed an excellent Nichols symposium.



National Siemen Competition Finalists, Christine Yoo and Kimberley Te, from Manhassett High School, along with their families and Mentor, were guests of the New York Section at the Nichols Symposium and Dinner.



Natalie Thulin of Barnard College, along with Diego Prado of Hofstra University, were guests of the New York Section. They were awarded the Nichols Fellows Research award for 2015. Their summer research was supported by the Nichols Foundation. Inc. They will present their work at the Undergraduate Research Symposium.

New York Meetings

www.newyorkacs.org

NEW YORK SECTION BOARD MEETING DATES FOR 2016

The dates for the Board Meetings of the ACS New York Section for 2016 have been selected and approved. The meetings are open to all – everybody is welcome. All non-board members who would like to attend any of the meetings ought to inform the New York Section office by emailing Mrs. Marilyn Jespersen at njesper1@optonline.net or by calling the Section office at (516) 883-7510.

All 2016 Board Meetings will be held on the following dates at St. John's University, 8000 Utopia Parkway, Jamaica, NY. Dr. Alison Hyslop will chair all meetings. Refreshments will be available starting at 6:00 PM while the actual meeting will start at exactly 6:30 PM. Please check Marilyn Jespersen for the exact building and room number. You may also be added in the mailing list if you so desire.

The board meetings dates for 2016 will be

Friday, June 3, 2016 Friday, September 16, 2016 Friday, November 18, 2016

More information will be posted in future monthly issues of *The Indicator* and on the New York website at http://www.NewYorkACS.org



LONG ISLAND SUBSECTION

High School Awards Ceremony

"The Science of Human Aging: Why, How and What Can be Done?"

Speaker: Warren Rosenberg, PhD Provost & Vice President of Academic Affairs Professor of Allied Health The College of Westchester

Aging, senescence and death are attributes shared by all aerobic organisms and have variously been attributed in the research literature to multiple causes ranging from genetic programming through environmentally-induced challenges. This presentation will begin with an overview of the aging process, what characterizes it, how it progresses, and how it varies among different species. We'll then explore the various theories of how and why the aging process occurs and will conclude with a review of the latest contemporary research on how the aging process might be manipulated to slow the degenerative changes and increase human life expectancy if not lifespan.

Date: Wednesday, May 4, 2016

- Times: Check-in 6:00 PM Dinner 6:30 PM Program 7:00 PM
- Place: Nassau Community College CCB Bldg., Multi-Purpose Room 1st Floor, One Education Drive Garden City, NY

Reservations and nominations are due by April 22, 2016.

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CHEMICAL MARKETING & ECONOMICS (CM&E) GROUP

Latin American Growth Outlook

Speakers: Federico Mennella Managing Director and Global Head of Lincoln International's Global Chemical practice

> Renzo Merino Analyst, Moody's Sovereign Risk Group

Danil Kerimi

Head of Communication Technology Industries at World Economic Forum USA

Moderators: George Rodriguez Director at Argeni LLC

> James S. Rosenstein Executive Director Brazilian-American Chamber of Commerce, Inc.

Date: Thursday, May 5, 2016

Times: 11:00 AM - 2:00 PM Place: Penn Club 304 West 44 Street New York, NY

Webcast free for all ACS Members.

See details at **www.cmeacs.org** and flyer on page 22.

* * * Future Meeting * * *

Date: Thursday, June 2, 2016

Times: 11:00 AM - 2:00 PM Place: Penn Club 304 West 44 Street New York, NY

See flyer on page 23.



SIONAL RELATIONS COMMITTEE OF THE NEW YORK SECTION

To Human Resources Departments in Industry and Academia

The Employment and Professional Relations Committee maintains a roster of candidates who are ACS members seeking a position in job openings and would like qualified candidates to contact you, please send a brief job description and educational/ experience background required to hessytaft@hotmail.com.

Candidates from our roster who meet the requirements you describe will be asked to contact you.

ORGANIC TOPICAL GROUP – JOINT MEETING WITH THE NEW YORK ACADEMY OF SCI-ENCES CHEMICAL BIOLOGY DISCUSSION GROUP

Chemical Biology Discussion Group Year-End Symposium

Organizers: Christopher am Ende, PhD Pfizer

Scott Priestley, PhD Bristol-Myers Squibb

Sonya Dougal, PhD The New York Academy of Sciences

Caitlin McOmish, PhD The New York Academy of Sciences

Speakers: Philip Cole, MD, PhD Johns Hopkins University Medical School

Kenneth W Duncan, PhD Epizyme

The goal of the Academy's Chemical Biology Discussion Group meetings is to enhance interactions among local-area laboratories working in chemical biology and to feature forefront research in chemical biology to the wider community. The annual yearend meeting features distinguished keynote speakers Scott J. Miller of Yale University and Kenneth Duncan of Epizyme, followed by short talks by trainees selected from participating tristate-area institutions and a poster session.

Date: Wednesday, May 25, 2016

Time: 12:00 - 5:00 PM

- Place: The New York Academy of Sciences 7 World Trade Center 250 Greenwich Street – 40th Floor New York, NY
- Cost: This event is FREE for ACS and NYAS members. Please select the appropriate non-member Registration Category and use the Priority Code ACS.

For more information and to register for the event, go to: www.nyas.org/ChemBio2016.

To become a Member of the Academy, visit www.nyas.org/benefits

NEW YORK SECTION — MIDDLE ATLANTIC REGIONAL MEETING 2016

Theme: "Chemistry: Past, Present, and Future"

New York – A Chemistry State of Mind

Sponsored by: New York Section of the American Chemical Society

The 44th Middle Atlantic Regional Meeting (MARM 2016) of the American Chemical Society (ACS) will be hosted by the New York Section of the ACS and held at the College of Mount Saint Vincent in Riverdale New York from **Thursday**, **June 9 to Sunday**, **June 12**, **2016**. MARM 2016 coincides with the 125th Anniversary of the American Chemical Society – NY Section.

For information regarding MARM 2016, please visit: http://www.marmacs. org/2016

 Questions regarding the event should be directed to the MARM 2016 General Co-Chairs:

Pamela Kerrigan: pamela.kerrigan@ mountsaintvincent.edu

Daniel Amarante: daniel.amarante@ mountsaintvincent.edu

 Interested speakers or individuals seeking to become Session Chairs should contact the MARM 2016 Program Co-Chairs:

Paris Svoronos: PSvoronos@qcc.cuny.edu

Sujun Wei: SWei@qcc.cuny.edu

For a current list of sessions visit: http:// www.marmacs.org/2016/program.html

 Potential exhibitors and sponsors may contact the MARM 2016 Exhibits and Sponsorship Co-Chairs: Fitzgerald Bramwell: jerry@
 empirescience.com

Ping Furlan: furlanp@usmma.edu

Urszula Golebiewska: UGolebiewska@ qcc.cuny.edu

Dates: Thursday-Sunday, June 9-12, 2016

Place: College of Mount Saint Vincent Riverdale, NY

See Call for Volunteers (page 21), more extensive information on pages 13-15 and 24.

WESTCHESTER CHEMICAL SOCIETY

On March 2, 2016 Soosairaj Therese, an Associate Professor in the Department of Chemistry & Chemical Technology at Bronx Community College, Bronx, NY spoke on the "Utility of Spinel Oxide Hosts for Magnesium-Ion Batteries". Although fairly ubiquitous today, lithium batteries have some associated problems including safety (fire) concerns and high cost (relative to nickel-cadmium batteries). Multivalent cations (such as Mg2+ or Al3+) are attractive because of their ability to hold more charge. Magnesium batteries are attractive because of lower costs and greater Spinels, often used as hosts, are safety. mixed metal oxides of the formula AB₂O₄, where the oxide ions form a cubic-closepacked structure, the A ions reside in 8a tetrahedral sites, the B ions reside in alternating octahedral sites designated as 16d sites, and the remaining empty octahedral are designated as 16c sites. sites

Magnesium can be reversibly inserted into manganese spinels. Dr. Therese has investigated the mechanism of magnesium extraction from MgMn₂O₄ and other Mg/Mnspinels, developing insights into their applicability as magnesium-ion battery cathodes. Various Mg/Mn spinels were prepared using a range of heating and cooling protocols. The products' XRD patterns indicated that the heating/cooling protocol can affect the degree of disorder in the spinels, in turn impacting their battery performance. There was interesting discussion with the audience during and after Dr. Therese's interesting and informative talk, given at the Westchester Community College in Valhalla, N.Y. Dr. Therese received her B.S., M.S., and an M.Phil., all in Chemistry from Madurai University in India, and a second B.S., in Education; from Annamalai University in India. She received her Ph.D. in Chemistry from the City University of New York. The photo below is of Dr. Therese and the WCS board of directors who attended the meeting.



Joan Laredo-Liddell, Jean Delfiner, Rolande Hodel, Paul Dillon, Soosairaj Therese and Anthony Durante.

> (Photo courtesy of Paul Dillon)

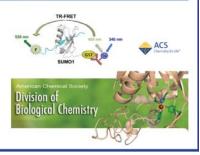


Middle Atlantic Regional Meeting 2016

American Chemical Society's New York Section, Inc. College of Mount Saint Vincent, Riverdale, NY | June 9-12, 2016 | marmacs.org

Chemical Biology Session

We cordially invite you to the Chemical Biology Session, which will take place on June 11, 2016. This Session, sponsored by the Division of Biological Chemistry of the American Chemical Society, will provide a forum for discussions of the most cutting edge research at the interface between chemistry and biology. The session features world-class researchers in the field including *Minkui Luo* (*MSKCC*), *Ming-Ming Zhou* (*Mount Sinai*) and *Jian Jing* (*Mount Sinai*). The topics will cover drug discovery targeting signaling pathways for discovery and development of novel therapeutics for cancer and other life -threatening diseases lacking a cure. Additional speakers will be selected from submitted abstracts. Please direct any questions to the Session Chair, *Dr. Yuan Chen* at ychen(2coh.org or *Dr. Ping Furdan* at <u>furlan</u>(2usmma.edu.



MIDDLE ATLANTIC REGIONAL MEETING 2016

New York—A Chemistry State of Mind

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College of Mount Saint Vincent, Riverdale, NY | June 9-12, 2016

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Meeting Program	Cover	Full Page	1/2 Page	1/4 Page	Logo	Appreciation
Website Logo/link	Yes	Yes	Yes	Yes	Yes	Appreciation
Email blasts	Logo	Logo	No	No	No	NA
Certificate	Diamond	Platinum	Gold	Silver	Bronze	Appreciation
Registration	4	2	2	1	1	NA

* Events include but are not limited to workshops, luncheons, social events, coffee breaks, and raffle. Full payment by April 15, 2016 to ensure full benefits.

Entity	Size	Cost* Included		Included
	(feet)	Early	Regular	
Commercial	8x10	\$800	\$1000	Power, 6-ft rectangular table, two chairs, two registrations, meeting attendee contact info, logo on website & program
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Unattended	8x10	\$275	\$350	6-ft rectangular table, meeting attendee contact info, logo on website & program
Unattended	Shared 8x10	\$175	\$225	1/2 6-ft rectangular table, meeting attendee contact info, logo on website & program

Categories*	Cost
Program ½ page with web logo/link	\$500
Program ¼ page with web logo/link	\$300
Program business card with web logo/link	\$125
web logo/link	\$45

* Full payment by April 15, 2016 to be included in the Program. Call for prices for other options



*Early Bird by March 1, 2016; full payment by April 15, 2016 to ensure full benefits; reduced price for combined registration with 2016 NERM is available (please call for information). Exhibits/Sponsorship

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Martha Hollomon

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ACS Meeting **Planning Partner Kimberly Savage** K Savage@acs.org

Frank Romano



American Chemical Society's New York Section, Inc. Middle Atlantic Regional Meeting 2016 http://marmacs.org/2016/

Dear Potential Exhibitor/Sponsor:

We invite your organization to take advantage of the many benefits of MARM 2016 as an Early Bird sponsor. There is the opportunity to connect with 30,000 chemists, biochemists and science educators in the Middle Atlantic Region (Washington DC to New York and of course all points in between). At MARM 2016, we anticipate 1,000 attendees from area industry, government labs, colleges and universities, public schools, and clinical labs. (Indeed, you are invited to review our program information at our website, http://www.marmacs.org/) MARM 2016 will run at the College of Mount Saint Vincent in Riverdale, NY on Thursday, June 9 through Sunday, June 12, 2016.

Your investment in the MARM 2016 Exposition as an Early Bird sponsor will maximize your interaction with attendees: either decision makers or prospective workforce employees. Among the incentives offered to Early Bird sponsors are:

- a special discount on exhibition space;
- targeted break (networking) sessions with industrial or academic decision makers;
- access to approved data bases for students; access to approved data bases for decision makers.

Here are some additional aspects of our plan that will assure the success and economy of your sponsorship:

- Early bird sponsors can rent exhibit space with or without power at a ٠ significantly reduced rate.
- Exhibit spaces available for Early Bird sponsors will be located in high traffic areas and include:
- Standard power (120 V) is available along the walls.
- 8 x 10-ft space including a 6-ft rectangular table, two chairs, and a trashcan.
- No cost wireless internet access available throughout the College of Mount Saint Vincent.
- Complimentary registration fees.
- BBQ, Raffle Draw, and sponsored Coffee Breaks that target potential workforce employees, or decision makers will be set up in the exhibit areas.
- Complimentary hot link posting to your company on the MARM 2016 website. ٠

MARM conference registration will be set up in the exhibit areas. Exhibit areas are located near the technical sessions and with the poster sessions. Register before March 1, 2016 to take advantage of the Early Bird Rates, and register by April 15, 2016 to ensure full benefits. Exhibit space is limited and spots will be reserved on a first come basis. In addition to benefiting your organization, your participation will help make this the best MARM meeting ever!

If you have any questions, please feel free to contact us.

Sincerely,

Atscald B. Brannell

Gertweester Ping b. Finlan

Dr. Fitzgerald Bramwell 859 338-7591 jerry@empirescience.com

Dr. Urszula Golebiewska 631 252-2106 UGolebiewska@gee.cuny.edu

Dr. Ping Furlan 516 726-5783 furlanp@usmma.edu



2016 WILLIAM H. NICHOLS FELLOWSHIP AWARDEES

The New York Local Section of the American Chemical Society is excited to announce the second year of a summer research opportunity for undergraduates, the William H. Nichols Fellowship. The Nichols Fellowship is open to all college students majoring in chemistry (broadly defined) who perform research over the Summer before graduation at an institution in the NY Local Section geographic area. Each Nichols Fellow receives a stipend of \$5,000 to support them as they perform their research and is expected to present their findings at the 2017 Undergraduate Research Symposium. In addition, they will be honored at the 2017 William H. Nichols Award Banguet. The 2016 Nichols Fellowship Awardees are. as follows:

George Maio, Lehman College – The City University of New York

"Development of a Physiologically Stable DNA Aptamer Against Human Promyelocytic Leukemia (HL60) Cells" with Prof. Prabodhika Mallikaratchy

Genesis Renderos, St. Peter's University "Oxygen Evolution in Earth-Abundant Metal Catalyzed Water Oxidation" with Prof. Yosra Badiei

The New York Local Section wishes each of the William H. Nichols Fellows the best in their research endeavors as it looks forward to hosting this summer research program for many years to come.

North Jersey Meetings

http://www.njacs.org

NORTH JERSEY EXECUTIVE COMMITTEE MEETING

There will be no North Jersey Executive Committee Meeting in May or June. The next meeting will be a joint meeting with Project SEED on Friday, September 2, 2016 at Seton Hall.

BOOSV OOR RAVINGS

When you tell our advertisers that you saw their ads here they have more confidence in our newsletter's viability as an advertising medium. They advertise more. This supports our many activities.

CAREERS IN TRANSITION MEETINGS

Job Hunting??

Resume & LinkedIn writing and key word search rules are changing. To be found, come and utilize our latest insights. Our ACS trained Career Consultants offer assistance at Students2Science to help members with their job search on the second Monday of each month. Topics at this free workshop are:

- · Techniques to enhance resume effectiveness
- Interview practice along with responding to difficult questions
- · Networking to find hidden jobs
- · Planning a more effective job search

Date: Monday, May 9, 2016 New from now on is a second CIT meeting in East Windsor on the third Monday. Contact Bill for details.

- Times: Meeting 2:30 5:00 PM Place: Students 2 Science, Inc.
- 66 Deforest Avenue East Hanover, NJ
- Cost: No charge

Reservations: at www.njacs.org/careers.html

A job board and networking assistance is offered at most topical group meetings. Appointments with Bill can be arranged for personal assistance at (908) 875-9069 or **billsuits@earthlink.net**.

See **www.njacs.org** under the Career tab for Jobs hidden from sight and relevant blogs.



NJACS PARTNERS WITH STUDENTS2SCIENCE

Members are encouraged to volunteer at their East Hanover facility and explore their website at www.students2science.org to learn more about this innovative program.

S2S continues to expand their exciting laboratory experience the disadvantaged children. Many of our members continue to volunteer as mentors. At their 2 million dollar analytical lab, every 40 kids are assisted by 16 professional volunteer mentors. The experiments performed really make chemistry and science come alive using state of the art analytical equipment working with students starting in 6th grade up to HS seniors. Each day is optimized for grade level and curriculum. Now the program has further expanded with internet video and experiments performed in the classroom for 4th & 5th grades. Internet allows views of the lab in operation and relates to simpler experiments setups done in the classroom with their teacher and a partnering chemist.

North Jersey members who volunteered benefited in many ways. Those in transition expanded their network and received job finding assistance. Retired chemists met up with old friends and made many new friends. Those with jobs used the volunteer hours as part of the company outreach programs and team training. All feel great about making a difference in the lives of the youth who may have never met a scientist or considered a career in the sciences.

Please consider volunteering and discovering more about this innovative program. If you want to learn more, you can speak with Don Truss at (908) 334-8435.

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NORTH JERSEY 2016 AWARDS AND RECOGNITION DINNER

Join us as we honor our volunteers and honor students.

- Date: Tuesday, May 24, 2016
- Times: Social 4:30 PM Dinner and Presentation of Certificates and Awards 5:30 PM Place: Fairleigh Dickinson University
- College at Florham Lenfell Hall, the Mansion Madison, NJ
- Cost: \$35.00

Directions to campus and a campus map can be found at http://tinyurl.com/j6j9nsl.

Reservations: Please make your reservation at our website, www.njacs.org prior to Thursday, May 10, 2016.

Questions: Call (973) 822-2575 or e-mail chemphun@optonline.net

Congratulations and a special thank you are in order to the members of the North Jersey Section who have reached 50 and 60 years of service!

50 Year Members

Dr. Alan W. Bushell Dr. Brian William Bussey Mr. Walton Bernard Caldwell Dr. Vilas Madhavrav Chopdekar Dr. Conrad Cone

- Dr. John Leo Considine
- Dr. Richard Charles Effland
- Dr. Robert Wheeler Egan
- Dr. Eric Howard Erenrich
- Dr. Anthony J. Fanelli
- Dr. Bernice Ida Feuer
- Mr. Lawrence Andrew Filachek
- Dr. Joseph Howard Finley
- Dr. David Stanley Frank
- Mr. Theodore James Heiart, Jr.
- Dr. George F. Heinrich
- Dr. William C. Hope
- Dr. Rudolph John Jaeger
- Dr. Michael Jaffe
- Dr. R. Craig Kammerer
- Dr. Ramesh Maganlal Kanojia
- Mr. Stanley Joseph Kolis
- Dr. John Robert Krenos
- Dr. Tung Ching Lee
- Mr. Robert J. McDevitt
- Mr. David B. Merdler
- Dr. John James Merianos
- Dr. Ernest Ulrich Monse
- Mr. Agostino Vincent Perrotta
- Mr. Srinivasa Raghavendr Rao
- Dr. Ernest W. Robb
- Dr. John Rollino
- Dr. Nicholas M. Scarpa
- Mr. William Lewis Schreiber
- Dr. Frank David Starkey
- Dr. Shin Shyong Tseng
- Mr. Richard L. Vaughan
- Dr. Peter C. Wade
- Dr. Larry Ralph Wantland

60 Year Members

- Dr. David A. Andrews
- Ms. Dorothy I. Eska
- Dr. Robert Fredericks
- Mr. G. Eugene Gottlieb
- Dr. Dorit L. Noether
- Dr. Yutaka Okinaka
- Dr. Murray Robbins
- Dr. Frank Scotti
- Mr. Harry Silla
- Dr. Herbert Samuel Skovronek
- Mr. George E. Spaulding Jr.
- Mr. Martin H. Stein
- Dr. Richard F. Stockel
- Mr. Gerald Sugerman
- Mr. Max J. Wisotsky

Call for Applications

FREDDIE AND ADA BROWN AWARD

This Award recognizes and encourages high achieving middle- and high-school students, of African American and Native American heritage, to further develop their academic skills, with views on careers in the chemical sciences

Award Amounts

Middle School \$100.00 Check and \$50.00 gift certificate : High School \$200.00 Check and \$100.00 gift certificate

Who is Eligible

Middle School students enrolled in a science class : High School students who have completed a chemistry course

Grades

Middle School B Average or better in Science, B Average overall : High School B Average in Chemistry, B Average overall

Letter of Recommendation

Math or Science/Chemistry Teachers or Guidance Counselor

Statement

Middle School "Why I Like Science" : High School "Why I Like Chemistry"

Selection Criteria

Applicants must be African American (Black) or Native American (including Pacific Islander) or of mixed race.

Transcript

Official transcript required.

Financial Need

Not Required.

Applications available on the web: www.njacs.org/freddieadabrown



or from your school guidance office.

Return Application To

Freddie and Ada Brown Award, NJACS Section Office, 49 Pippen Way, Morristown, NJ 07960

Due Date

Completed Applications must be postmarked no later than March 31 Annually

Questions: Contact Jeannette Brown Jebrown@infionline.net or (908) 239-1515

Call for Nominations

COMMITTEE ON THE HISTORY OF THE NEW YORK SECTION

Over the past twenty-three years the New York Section has participated in the designation of seven National Historic Chemical Landmarks and four New York Section Historic Chemical Landmarks. A brief description of these National and local section landmarks may be found on the NY Section Home Page at **newyorkacs.org**, under the Committee on the History of the NY Section. These landmark programs recognize achievements in the chemical sciences and related areas, in order to enhance public appreciation for the contributions of the chemical sciences to modern life.

Please consider making a nomination for an historic chemical landmark. The Committee on the History of the NY Section will consider all nominations. In addition to a particular achievement, an historic library, building or association may be worthy of this distinction.

Please send your nomination, with supporting documentation, to the Chair of the Committee, Dr. John B. Sharkey, at johnbsharkey@me.com.

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THE WILLIAM H. NICHOLS MEDAL AWARD FOR 2017

The New York Section is accepting nominations for the William H. Nichols Medal Award for the year 2017. This distinguished award, established in 1902 by Dr. William H. Nichols, for the purpose of encouraging original research in chemistry, is the first award authorized by the American Chemical Society. The New York Section presents this award annually in recognition of an outstanding contribution in the field of chemistry. The award consists of a gold medal, a bronze replica and \$5000. The medals are presented at the William H. Nichols Meeting that involves the Distinguished Symposium, related to the medalist's field of expertise, and a Medal Award Dinner. The event is attended by members of the Nichols Family and officers of the American Chemical Society.

Investigators who have published a significant and original contribution in any field of chemistry during the five calendar years preceding the presentation meeting are eligible for consideration by the Nichols Medal Jury. The New York Section encourages nominations from academia, government and industry.

Each nomination requires a completed nomination form, biographical and professional data, and three supporting letters. The nomination process goes through the New York Section website where the nomination form and instructions appear at http://www.newyorkacs.org/meetings/ Nominations/Nichols.php

Nominations must be received by May 31, 2016. The Nichols Medal Award Jury will meet in June 2016 to select the Nichols Medalist for 2017.

Questions regarding the nomination procedure should be directed to the ACS, New York Section Office at **njesper1**@ **optonline.net**.

NEW YORK SECTION OUTSTANDING SERVICE AWARD FOR 2016

Many members of the New York Section provide their time, leadership talent, and knowledge to the New York Section. The tradition of excellence of the New York Section is attributable directly to the cumulative effect of these dedicated individuals. Each year the New York Section presents the Outstanding Service Award to a most deserving member of the section. The New York Section is now accepting nominations for this award.

A nomination letter with supporting data should be emailed to the 2016 OSA Committee Chair, Dr. Barbara Hillery at hilleryb@oldwestbury.edu. Nominations will be accepted until June 31, 2016.

The nominations will be reviewed by a committee consisting of the previous five winners of the award. The Outstanding Service Award for 2016 will be presented at the New York Section's Section-wide Conference in January 2017.

For more information about the award along with a list of former award recipients, please visit the ACS New York Section's website at http://www.newyorkacs.org/awards_ nyacs.php

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METRO WOMEN CHEMISTS

The Metro Women Chemists Committee is now accepting nominations for the **7th Annual Gift of Mentoring Award**. Please share your stories with us if you have benefited from mentorship or you have had positive influence over other people's lives or careers. Please write your stories with no more than 300 words and send them to Sarah Carberry at **sbolton@ramapo.edu**. **Deadline: April 15, 2016**.



Ellis Island

Grants Available

ACS SENIOR CHEMISTS

Dear Local Section Officers,

The ACS Senior Chemists Committee (SCC) is pleased to offer a limited number of grants to local sections that wish to sponsor an event or activity that will increase the engagement of senior members and encourage innovative activities that will benefit the local community, schools, or legislative government.

Grant Details:

- A limited number of grants (up to \$500) are available to local sections that wish to host an event/activity that meets the above criteria;
- Local sections must submit a grant application by July 15, 2016. Grant funds are limited and will be awarded on a firstcome, first-served basis;
- A summary report must be submitted within 30 days of the conclusion of the event/activity.

For more information, please email **silvercircle@acs.org**. Thank you.



ACS LEADERSHIP DEVELOPMENT SYSTEM® GRANTS AVAILABLE TO LOCAL SECTIONS

The Committee on Local Section Activities (LSAC) is pleased to offer a limited number of grants to local sections that wish to host ACS Leadership Development System ® courses in 2016-2017. This partnership between the ACS Leadership Advisory Board (LAB) and LSAC will allow your local section to provide a tangible member benefit to your local section members at no charge.

Grant Details:

A limited number of grants (up to \$3,000) are available to local sections that wish to host an ACS Leadership Development System® course in the fall of 2016 through 2017.

Upon grant approval, eligible local sections will be awarded \$1,800 to cover the registration fees (\$150pp) for the first 12 participants who register for the course;

Additional grant monies up to \$1,200 will be awarded to local sections who wish to offer additional scholarships.

Local sections may choose to host any of the following courses:

Engaging Colleagues in Dialogue

Engaging and Motivating Volunteers

Fostering Innovation

Coaching and Feedback

Collaborating Across Boundaries

Leading Without Authority

Developing Communication Strategies

Strategic Planning*

*Local Sections may choose to sponsor a 1.5 day Strategic Planning Retreat for the Executive Committee and up to 7 other members. Please note that the \$3000 will not cover the entire cost of the Retreat but it will help to offset the \$4500 fee which covers the costs and facilitator fees associated with the Retreat. In addition, the local section should budget for meals, snacks and any meeting room expenses that may be incurred.

Local sections must submit a grant application **by July 15, 2016**. Grant funds are limited and will be awarded on a first-come, first-served basis. Dates to host a leadership course are subject to facilitator availability.

All courses are facilitated by an ACS member who has been trained and certified to teach the course. As each facilitator is a volunteer, flexibility is requested in accommodating your proposed workshop date. ACS will provide all course materials, and a computer and projector if needed. Local sections are responsible for reserving a meeting room (with a screen and flipcharts), providing a light snack for attendees, and assisting with course promotion on their website, mailings and meeting announcements. ACS is available to provide limited support in promoting the course to your members.

ACS Leadership Development System (B) courses provide participants with an opportunity to learn essential skills that will strengthen their competitive edge in today's global economy. For more information about these courses and course scholarships, please visit www.acs.org/leaderdevelopment or contact leaders@acs.org.

Call for Volunteers

OPPORTUNITY FOR ACS MEMBERS TO AID STUDENTS 2 SCIENCE IN A HYBRID VIRTUAL LAB PROGRAM

Can you spare a few hours of your time? Do you like working with students and would you like the opportunity to share your science knowledge in a classroom? Students 2 Science is seeking volunteers to aid in our Virtual Lab program. We have a series of elementary, middle, and high school experiments that we will be running in various schools across New Jersey. Members are especially needed to help with the North Jersey section's IPG funded project to bring hands-on science to South Jersey. We need professionals to help in the classroom with the students. It's great fun, a wonderful way to give back, and only requires a few hours of your time. Opportunities begin in November. For information. more Fran contact Nelson. frannelson@ students2science.org and visit our website at Students2Science.org



MARM 2016

The New York Section will be hosting MARM 2016, **June 9-12, 2016** at the College of Mount Saint Vincent, Riverdale, NY 10471. The section will be celebrating its 125th Anniversary during its event. The theme is Chemistry: Past, Present, and Future. The General Chairs for this meeting are Dr. Pamela Kerrigan and Dr. Daniel Amarante from the College of Mount Saint Vincent's Division of Natural Sciences. To volunteer in planning and/or for further information, please contact them at the following emails:

Pamela.kerrigan@mountsaintvincent.edu or

Daniel.amarante@mountsaintvincent.edu

Press Release

RICE SCIENTISTS SYNTHESIZE ANTI-CANCER AGENT TRIOXACARCIN

Molecules bind to the DNA of targeted cells and prevent them from replicating

HOUSTON – (March 10, 2016) – A team led by Rice University synthetic organic chemist K.C. Nicolaou has developed a new process for the synthesis of a series of potent anticancer agents originally found in bacteria.

The Nicolaou lab finds ways to replicate rare, naturally occurring compounds in larger amounts so they can be studied by biologists and clinicians as potential new medications. It also seeks to fine-tune the molecular structures of these compounds through analog design and synthesis to improve their disease-fighting properties and lessen their side effects.

Such is the case with their synthesis of trioxacarcins, reported this month in the *Journal of the American Chemical Society*.

"Not only does this synthesis render these valuable molecules readily available for biological investigation, but it also allows the previously unknown full structural elucidation of one of them," Nicolaou said. "The newly developed synthetic technologies will allow us to construct variations for biological evaluation as part of a program to optimize their pharmacological profiles."

At present, there are no drugs based on trioxacarcins, which damage DNA through a novel mechanism, Nicolaou said.

Trioxacarcins were discovered in the fermentation broth of the bacterial strain Streptomyces bottropensis. They disrupt the replication of cancer cells by binding and chemically modifying their genetic material.

"These molecules are endowed with powerful anti-tumor properties," Nicolaou said. "They are not as potent as shishijimicin, which we also synthesized recently, but they are more powerful than taxol, the widely used anti-cancer drug. Our objective is to make it more powerful through fine-tuning its structure."

He said his lab is working with a biotechnology partner to pair these cytotoxic compounds (called payloads) to cancer cell-targeting antibodies through chemical linkers. The process produces so-called antibodydrug conjugates as drugs to treat cancer patients. "It's one of the latest frontiers in personalized targeting chemotherapies," said Nicolaou, who earlier this year won the prestigious Wolf Prize in Chemistry.

Co-authors are Rice postdoctoral research associates Quan Cai, Shugao Zhu and Bo Qin and former visiting student Hongbao Sun.

The Cancer Prevention and Research Institute of Texas, the Welch Foundation and Rice University supported the research.



2016 LATIN AMERICAN OUTLOOK

Luncheon/Webcast . May 5, 2016 . Penn Club

Free Webcast for ACS National Members – Register at www.cmeacs.org

Abstract

The persistent pricing decline in commodities took Latin America, once the darling of investors, to stock market index lows last year. Even the Padific Alliance driven by trade dynamics, business friendliness and storage reserves (in Chile and Peru) was impacted. Brazil and Argentina went through a tumultuous economic backdrop and scandals that discomfited political and business leaders allike. However, a number of Latin American stock markets have showed explosive growth in 2016. Are the economic environment and political reforms compelling enough to bring back the enthusiasm for this region? May 5, or Cinco de Mayo, is your opportunity to hear the insights of experts about the challenges and opportunities in this exciting region.



Lincoln

Federico Mennella, Managing Director & Global Head of Lincoln's International Global Chemical practice, has more than 25 years of experience. Previously, Federico was a managing director at Peter J. Solomon Company. Before that, he was co-head of PMorgan Chase's Global Consumer Products M&A business, in addition to leading Chase's Global Chemical and Industrial M&A advisory activities. He has worked at Deutsche Bank, Lazard, McKinsey, Oppenheimer and Arthur Andersen. Federico holds an MBA from Harvard Business School and a BA cum laude from Yale University. He Is a CFA and a member of the New York Society of Security Analysts.



Renzo Merino, Analyst, Moody's Sovereign Risk Group. He follows the sovereign and supranational credits of countries in Latin America as well as the Inter-American Development Bank, the Inter-American Investment Corporation. He has covered sovereigns in the United States, Canada, Australia, Hong Kong, South Africa, Brazil, Peru, and Venezuela. Merino helped develop the Rating Methodology for development banks and entitles. He was a Country Risk Analyst for Latin America at Business Monitor International (BMI). He holds an MA in Economics from NYU and a BA in Economics from UPenn. He did post- baccalaureate studies at Columbia University.



Event Schedule

Location: Penn Club 30 W 44th Street, NYC

Event Times: (ET) 11:15 am - 12:00 noon Registration-Network 12 noon-1 pm Luncheon 1 - Zpm Talk-Webcast Luncheon Fees \$200 for non-members \$90 for members \$90 for members Check for Early-birld savings Webcast : \$30. Free webcast recording for ACS members

CME Board

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> Karin Bartels Directors

Neil Burns Chris Cerimele David J. Deutsch Brian Orkin Paul Pospisil

Student Volunteers Paloma Beraldo Anne Powers Anahlt Stepanyan Debra Rooker Xiao Zhong

www.cmeacs.org



NNI 2.0 - THE FUTURE OF USA NANOTECHNOLOGY

Luncheon/Webcast • June 2, 2016 • Penn Club

Free Webcast for ACS National Members – Register at www.cmeacs.org

Abstract

The National Nanotechnology Initiative (NNI) envisions a future in which the ability to control matter at the nanoscale leads to a revolution in industry that benefits society. Since 2000, Federal agencies participating in the NNI have Invested over 20,000,000,000 dollars in various aspects of nanotechnology.

Nanotechnology is enabling revolutionary innovations for the future of electronics, computation, communications, and sensing. New nanoparticlebased composites and additives offer dramatic improvements in properties such as strength-to-weight ratios, manufacturing complexity, lubrication, and catalytic efficiency. Also, advances in nanoparticle-based, targeted therapies help to treat diseases like cancer.

But much remains to be done when it comes to transitioning advances in R&D to commercial applications. June 2 is your opportunity to share insights into industry's future prospects in order to refine the upcoming NNI 2.0 plan.



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Speaker: Michael A. Meador, PhD, is Director of the National Nanotechnology Coordination Office (NNCO). He promotes the NNI goals of fostering outting-edge nanotechnology R&D; advancing testing, characterization and fabrication; facilitating commercialization of nanotechnology-based products and promoting responsible development. He is on detail from the NASA Glenn Research Center where, since 1983 he has been involved in materials R&D including serving as the Chief of the Polymers Branch (1988 to 2011). From 2011 to 2014, he led a NASA-industry-university project to mature high payoff nanotechnologies for use in NASA missions under the Space Technology Mission Directorate's Game Changing Development Program. Meador received the NASA Equal Opportunity Employment Medal and the NASA Exceptional Service Medal for nanotechnology R&D. Dr. Meador is a Fellow of ACS, and Adjunct Faculty Member at Clemson University. He received a BA in Chemistry from Ithaca College and a PhD in Organic Chemistry from Michigan State University



Event Schedule

Location: Penn Club 30 W 44th Street, NYC Event Times: (ET) 11:15 am - 12:20 noon Registration and Networking 12 noon - 1 pm Luncheon 12 noor - 1 pm Luncheon 12 nor - 2 pm Talk - Webcast Luncheon Fees \$120 for non-members S90 for members Check for Early-bird savings Webcast : \$30. Free webcast recording for ACS members

CME Board

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Paloma Beraldo Anne Powers Anahit Stepanyan Debra Rooker Xiao Zhong



www.cmeacs.org



44th Middle Atlantic Regional Meeting at
COLLEGE OF
MOUNT SAINT VINCENT
Riverside, New York

MARM 2016

is pleased to announce the symposium,

Microwave Chemistry: Bridging Synthetic Research and Instructional Innovation

Friday 10 June 2016

featuring a keynote address by

C. Oliver Kappe

Professor of Chemistry, University of Graz Key Researcher, Research Center Pharmaceutical Engineering (RCPE)

Schedule

- 9:00 Opening remarks
- 9:10 Microwave reactors as tools in organic chemistry lab courses (C.O. Kappe)
- 10:00 Necessity is the mother of invention: Development of a green undergraduate laboratory experiment demonstrating the E1 reaction utilizing a microwave reactor and resin based acid catalyst (R.G. Aslanian)
- 10:30 Using microwave assist to stimulate a multiple component experiment to connect labs across the chemistry curriculum (A.S. Koch)
- 11:00 Intermission
- 11:15 Microwave-assisted esterification: A discovery-based microscale laboratory experiment (S.M. King)
- 11:45 Investigations of Factors Controlling Structures of Metal-Organic Frameworks Using Microwave Assisted Synthesis (M.P. Masingale)
- 12:15 MIBLabs: A student-centered sophomore organic curriculum featuring microwave chemistry (S.S. Murphree)



Register for the conference and plan on attending the symposium!



the organizers gratefully acknowledge the financial support of Anton Paar

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