



American Chemical Society Susquehanna Valley Section

APRIL 2018 NEWSLETTER

The four hundred and forty fourth meeting of the Susquehanna Valley Section of the American Chemical Society will be held on Wednesday, April 11th, 2018 at the Center for Natural and Health Sciences Building, room 203, on the campus of Marywood University in Scranton, PA. The meeting will begin at 7:00 PM and will be preceded by a dinner Grande Pizza in Dunmore, PA. The speaker will be Dr. Deanne Dulik Garver of Marywood University.

“Organic Chemistry Down on the Farm”

Dr. Deanne Dulik Garver
Science Department
Marywood University
Scranton, PA

ABSTRACT:

Applications of medicinal chemistry in organic farming are numerous, as Mother Nature has provided many useful compounds that may be used to enhance the production of farm crops or to provide a medicinal benefit from products produced by organic farming. Our laboratory has been involved in the development of formulations of antimicrobial compounds found in essential oils (thyme and oregano) for the elimination of biofilms in organic hydroponic lettuce farms as well as the study of anti-inflammatory compounds found in the leaves of organic raspberry plants. Formation of biofilms are a natural consequence of hydroponic farming. These biofilms feed on the nutrients that are present in the flowing water system, thus reducing the size of the resulting crops. Methods to reduce biofilm are expensive and have safety concerns. Our lab has studied a formulation containing the natural antimicrobial compounds, carvacrol and thymol, found in oil of oregano and oil of thyme, to effectively reduce the level of biofilm in hydroponic farm systems. These compounds can be added to the nutrient water mixture to keep biofilm from growing without harm to the growing plant. In another organic farming study, our research group has been investigating the anti-inflammatory activity of compounds found in the leaf of the red raspberry plant, including ellagic acid and related ellagitannins, which have shown anecdotal relief of arthritis symptoms in patients following consumption of a brewed tea prepared from these leaves. We are currently in the process of quantifying the anti-inflammatory components of the leaves and brewed tea using extraction and liquid chromatography/mass spectrometry methods.

BIOGRAPHY OF DR. DULIK GARVER:

Deanne Dulik Garver earned a B.A. in Biology and Chemistry at Notre Dame University of Maryland and a Ph.D. in Medicinal Chemistry at the Medical College of Virginia/Virginia Commonwealth University. After a postdoctoral fellowship and Research Associate position in Pharmacology at the Johns Hopkins University School of Medicine, she joined the Department of Drug Metabolism and Pharmacokinetics at Smith, Kline and French Research Laboratories in suburban Philadelphia (now GlaxoSmithKline). She had positions of increasing responsibility, including Project Director in the Cardiopulmonary Division, over 11 years. She then assumed the role of Vice President of Development at Adolor Corporation in

Exton, PA and eventually VP of Research and Development, over the following 8 years. She has remained a pharmaceutical consultant over the past 14 years in the area of Preclinical Drug Development. She relocated to Scranton in 2009, and joined the faculty in the Science Department at Marywood University. She is currently an Associate Professor and teaches Organic Chemistry and Medicinal Chemistry courses as well as the Senior Science Capstone course. Her research interests include the medicinal properties of natural products and the development of novel formulations of antimicrobial and anti-inflammatory compounds found on organic farms. She co-owns and operates an organic practice raspberry and conifer tree farm in Wyoming County with her husband, Eric.

DINNER:

The meeting will be preceded by dinner at 5:30 PM at [Grande Pizza](#) at 300 S. Blakely St. in Dunmore, PA. (Note: Apple Maps incorrectly indicates 301 S. Blakely St.) Their telephone number is 570-207-2222. Dinner will be ordered from the menu and entrees average \$15 per person. If you are interested in attending the dinner, please RSVP to Dr. Deanne Dulik Garver by email (dgarver@maryu.marywood.edu) or phone 570-348-6211 x2564 by Tuesday, April 10, 2018.

DIRECTIONS TO GRANDE PIZZA:

Grande Pizza is at 300 S. Blakely St. in Dunmore, PA. From I-81 N. take exit 187/186 to Drinker St. Turn left onto E. Drinker Street. Stay on E Drinker Street for about 1 mile, and then turn left onto S. Blakely St. Grande Pizza is 3 blocks on your left at Green Ridge St. / Potter St.

DIRECTIONS FROM THE RESTAURANT TO THE UNIVERSITY:

The University entrance is near 1299 Seminary St, Scranton, PA 18509. Make a right onto S. Blakely St. Follow Blakely Street to traffic light at Drinker Street. Turn right onto Drinker Street which merges with Electric Street. Proceed to second traffic light. At this intersection, turn right onto North Washington Avenue, and proceed four blocks. At third stop sign on North Washington, turn right onto Seminary Street. Proceed up the hill to the Memorial Arch. Parking areas are located in the Visitor Lot behind the Center for Athletics and Wellness.

DIRECTIONS TO MARYWOOD UNIVERSITY:

The University entrance is near 1299 Seminary St, Scranton, PA 18509. From U.S. Interstate 81, Exit 188 (old exit 55), follow directional signs at the end of the exit ramp toward Dunmore. (If you are traveling north on 81, make a left at the light at the O'Neill Highway, which becomes Blakely Street.) Follow Blakely Street to traffic light at Drinker Street. Turn right onto Drinker Street which merges with Electric Street. Proceed to second traffic light. At this intersection, turn right onto North Washington Avenue, and proceed four blocks. At third stop sign on North Washington, turn right onto Seminary Street. Proceed up the hill to the Memorial Arch. Parking areas are located in the Visitor Lot behind the Center for Athletics and Wellness.



- 1 Memorial Arch
- 11 Center for Natural and Health Sciences Building
- P Visitor Parking

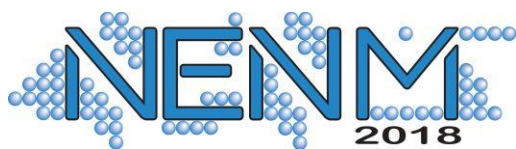
See directions at their website as well: http://www.marywood.edu/virtual_tour/directions.html

SECTION NEWS:

2018 SUSQUEHANNA VALLEY SECTION CHEMISTRY HIGH SCHOOL EXAM:

The annual exams, hosted by the Susquehanna Valley Section of the ACS, will be held Saturday, April 14. Students from across the section are nominated by their teachers to take this exam. Students with high scores in our different districts receive a David H. Frederick Memorial Award in High School Chemistry at our Awards Banquet on Wednesday, May 2 at the Pine Barn Inn in Danville, PA. See the [website](#) for details.

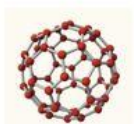
NERM 2018:



In 2018, the Northeast Region of the ACS is offering a focused, specialized regional meeting on “Nanomaterials: Applications and Environmental Impacts”. A call for abstracts has been issued. NENM 2018 is scheduled for June 1-3, 2018 and is being hosted by the Northern New York Section of the American Chemical Society. It will be held at Crowne Plaza Hotel & Resort, Lake Placid. Register by April 20th for early bird rates. See their [website](#) for more details.

NANO-MARM 2018:

Iron past



Unlimited Future

NanoMARM will be a one-day regional meeting on Sunday, 3 June 2018. It will be held in the Iacocca Center on the Lehigh University campus and will include the MARM Chemagination competition and the MARM awards banquet. The plenary speaker will be Dr. Jennifer M. Rampling of Princeton University speaking on “George Ripley and the Image of English Alchemy See the [website](#) for more details.

NATIONAL ACS NEWS:

NATIONAL MEETINGS:

The 2018 fall national meeting will be held in Boston, Massachusetts from August 19-23. Registration for opens in May.



Mark your calendars for the 5th USA Science & Engineering Festival Expo on April 7-8, 2018. Explore 3,000 hands-on exhibits from the world's leading scientific and engineering societies, universities, government agencies, high-tech corporations and STEM organizations. The two-day Expo is perfect for children, teens, and families who want to inspire their curious minds. See the website at <https://usasciencefestival.org/> for more details.

SERVICE ON ACS NATIONAL COMMITTEES:

There are many national committees of the ACS that welcome non-councilors. If you are interested in being considered for a committee appointment at the national level, you are encouraged to create a listing in the ACS Yellowbook and fill out a committee preference form.

If you are not already in the Yellowbook system, you can request access from Cheryl Vockins (c_vockins@acs.org)

The online committee preference form to select and inform our office of your committee interests will be open from March 26-June 8, 2018, and is located at <https://www.yellowbook.acs.org>.

If you would like to be considered for an appointment, the Committee on Committees now requires that you provide specific details/rationale (500 character limit) about your qualifications/expertise for that appointment so be sure and fill out that text box.

Although not all can be appointed to committees, you can be sure that you will get thorough consideration for an assignment.

Please contact Cheryl Vockins (c_vockins@acs.org), if you have any questions.

ACS LEGISLATIVE ACTION NETWORK:

Legislation that may impact the chemical enterprise comes before Congress on a regular basis, and the ACS is committed to keeping its members informed and encouraging them to weigh in on high-priority issues. To see the position of the ACS on many legislative issues visit the ACS LAN website: <https://www.acs.org/content/acs/en/policy.html>

To find out how to become more active in ACS advocacy activities, see the website: <https://www.acs.org/content/acs/en/policy/memberadvocacy/advocacy-tools.html>

To join ACS' grassroots legislative advocacy network, ACT4CHEMISTRY, which will allow you to stay up to date on policy issues and contact legislators on behalf of chemistry and chemists, go to their [website](#), follow the [Act4Chemistry Twitter account](#), or email advocacy@acs.org.

JOIN THE ACS:

If you know of anyone who would benefit from being a member of the American Chemical Society, please direct them to the membership website:

<https://www.acs.org/content/acs/en/membership-and-networks/acs/join.html>

Susquehanna Valley Section Web Page: <http://departments.kings.edu/SusquehannaValleyACS>

Please send any comments about the monthly newsletter to Ron Supkowski, Section Secretary
King's College 131 N River St Wilkes-Barre PA 18711 ronaldsupkowski@kings.edu
