

## Women Chemist Committee Event



~ **Dr. Josephine Johnson** ~  
Adjunct Professor, Stevenson University  
Founder and Owner, Cullaborate LLC

*" Fungicides and the neonicotinoid class of pesticides and their effects on bees"*

Wednesday, March 8th 6:00-8:30 pm  
Kevin J Manning Academic Center  
Rooms S-124 B/D and S-137  
Stevenson University  
Owings Mill North Campus  
11200 Gundry Lane  
Owings Mills, MD 21117



Volume 74, Number 6, February, 2017

**2017 Section Officers:**

*Chair 2017* – Stephanie J. Watson, N.I.S.T., [stephanie.watson@nist.gov](mailto:stephanie.watson@nist.gov)

*Vice-chair (chair 2018)* – Beatrice Salazar, [beatricesalazar1@gmail.com](mailto:beatricesalazar1@gmail.com)

*Chair-elect (chair 2019)* – Dana Ferraris, McDaniel College, [dferraris@mcdaniel.edu](mailto:dferraris@mcdaniel.edu)

*Immediate-Past Chair (chair 2015)* – Paul Smith, University of Maryland, Baltimore County, [pjsmith@umbc.edu](mailto:pjsmith@umbc.edu)

*Secretary* – Louise Hellwig, Morgan State University, [louise.hellwig@morgan.edu](mailto:louise.hellwig@morgan.edu)

*Treasurer* – Angela Sherman, Notre Dame of Maryland University, [asherman@ndm.edu](mailto:asherman@ndm.edu)

**Councilors:**

2014–2016 Merle I. Eiss, Retired, [meiss32@aol.com](mailto:meiss32@aol.com)

2014–2016 Paul Smith, University of Maryland, Baltimore County, [pjsmith@umbc.edu](mailto:pjsmith@umbc.edu)

2015–2017 Stephanie J. Watson, N.I.S.T., [stephanie.watson@nist.gov](mailto:stephanie.watson@nist.gov)

2015–2017 Dana Ferraris, McDaniel College, [dferraris@mcdaniel.edu](mailto:dferraris@mcdaniel.edu)

2015–2017 Jan Kolakowski, US Army Edgewood Chemical Biological Center, [jan.e.kolakowski.civ@mail.mil](mailto:jan.e.kolakowski.civ@mail.mil)

**Alternate Councilors:**

2017-2019 Charles Chen, Johns Hopkins University, [Chenchar22@gmail.com](mailto:Chenchar22@gmail.com)

2017-2019 Kelly M. Elkins, Towson University, [kmelkins@towson.edu](mailto:kmelkins@towson.edu)

2017–2019 Sandra Young, RDECOM, [sandra.k.young26.civ@mail.mil](mailto:sandra.k.young26.civ@mail.mil)

2017–2019 Pumtiwitt McCarthy, Morgan State University, [Pumtiwitt.McCarthy@morgan.edu](mailto:Pumtiwitt.McCarthy@morgan.edu)

2017–2019 Charles M. Zapf, retired, [smzsail@verizon.net](mailto:smzsail@verizon.net)

**2017 Members-at-large:**

George Farrant, Retired, [gfarrant@yahoo.com](mailto:gfarrant@yahoo.com)

Sara Narayan, Stevenson University, [snarayan@stevenson.edu](mailto:snarayan@stevenson.edu)

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Sandra Young, RDECOM, [sandra.k.young26.civ@mail.mil](mailto:sandra.k.young26.civ@mail.mil)

**Award Committee Chairs:**

*Student Awards* – George Farrant, Retired, [gfarrant@yahoo.com](mailto:gfarrant@yahoo.com)

*Remsen Award* – Dana Ferraris, McDaniel College, [dferraris@mcdaniel.edu](mailto:dferraris@mcdaniel.edu)

*Braude Award* – Louise Hellwig, Morgan State University, [louise.hellwig@morgan.edu](mailto:louise.hellwig@morgan.edu)

*Maryland Chemist Award*–Angela Sherman, Notre Dame of Maryland University, [asherman@ndm.edu](mailto:asherman@ndm.edu)

**Committee Chairs:**

*Chemathon* – Charles M. Zapf, retired, [smzsail@verizon.net](mailto:smzsail@verizon.net)

*Elections* – Stephanie J. Watson, N.I.S.T., [stephanie.watson@nist.gov](mailto:stephanie.watson@nist.gov)

*Energy/Environmental Issues*– Richard Love [ralove100@gmail.com](mailto:ralove100@gmail.com)

*Finances* – Jan Kolakowski, US Army Edgewood Chemical Biological Center, [jan.e.kolakowski.civ@mail.mil](mailto:jan.e.kolakowski.civ@mail.mil)

*LSAC, USNCO, Earthy Day Events* - Beatrice Salazar, [beatricesalazar1@gmail.com](mailto:beatricesalazar1@gmail.com)

*Women Chemist Committee* – Kelly M. Elkins, Towson University, [kmelkins@towson.edu](mailto:kmelkins@towson.edu) Sara Narayan, Stevenson University,

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[contact-us@mdchem.org](mailto:contact-us@mdchem.org)

## Message From the Chair:

I want to re-introduce myself as the new chair for the section. I was chair 10 years ago- how time flies! I joined the ACS Maryland Section shortly after I moved to Baltimore for employment almost 20 years ago. I used the ACS Maryland Section to get to know people, to network, and to learn the scientific interests and issues of the area. I volunteered to chair the exhibition for the 2001 MARM meeting held at Towson University. In 2012, I co-chaired the MARM held at UMBC. I went from Section secretary, worked my way up to chair and then to councilor. Now I am back as chair. It has been surprising that our Section has had to 'recycle' prior chairs for the past three years. In my role as chair, I want to re-introduce members to the Section and hopefully get them excited to participate.

I have found the Maryland Section to be a strong and longstanding section. However, like most scientific society groups, the core set of volunteers is aging and approaching retirement. Because of this, it is very important that our Section begin to attract new, energetic chemists willing to serve as volunteers. Now is the time to learn from the older members so that we can continue the traditions of the Maryland Section. With more Section volunteers, the amount of work should be less per person; I know that we have increasingly busy lives. I would like to spend time this year to increase communication with all members, but especially with groups like this have seemed to fallen away from Section participation. One example is community colleges. They are increasingly vital to the role of education and job creation for the community and both the Section and these groups can benefit from more interaction. I have seen that the Maryland Section has a very strong Outreach Program; this is an important function for our community. There needs to be continued support of these programs and recognition of the hard work from volunteers by the section to maintain these programs. Finally, I would like to improve the interaction with Student Member groups. Not only are the young chemists the future of the Section, they are the key to new ways to communicate with all members, like using SnapChat, WhatsApp and other apps!

In summary, the following is an outline of my Goals for 2017:

### ***Increase Communication with Members***

- O Focus on community colleges: develop ways to improve interaction (and try with other local universities). To start, simply hold meetings on their campus
- O Continue to work with local industry via site visit programs
- O Rethink 50/60-Year Luncheon

### ***Improve Section Outreach***

- O Focus on middle schools and high schools: survey teachers (when to survey to get the best response?) -How can the Section assist them?
- O Develop a program for professional development. When is the best time for training sessions?

- O Continue a student outreach event—like the Baltimore City water plant trip

### ***Improve interaction with Student Member Groups***

- O Outstanding NCW event competition
- O Career event using modern technologies, e.g. Snap Chat, WhatsApp or develop a YouTube Video

I look forward to increased contact with all members!

Stephanie S. Watson  
Chair 2017

~ **Dr. Josephine Johnson** ~  
Adjunct Professor, Stevenson University  
Founder and Owner, Cullaborate LLC

*" Fungicides and the neonicotinoid class of pesticides and their effects on bees"*

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**Speaker Bio:** Dr. Josephine Johnson (Jody) began her chemistry career at Johns Hopkins in the Department of Cardiology. There she studied ischemia in heart tissue using nuclear magnetic resonance (NMR). She then pursued a masters degree in chemistry from UMBC. Her research focused on understanding the stereochemistry of a substrate in the active site of a Krebs Cycle enzyme. After finishing her degree, she worked at Kennedy Krieger for several years analyzing lead contamination in inner city children suffering from pica using drug chelation therapy. After a leave of absence from the lab, she returned to chemistry at Stevenson University where she filled multiple roles for ten years: chemistry instructor, chemistry lab manager, and safety officer. She began the doctoral program at the University of Maryland Medical School intending to focus on neurotoxins and human health. However, a twist of fate led her to realign her focus to study the effects of neurotoxins on honey bees. She studied under Dr. Jeff Pettis, a world recognized entomologist specializing in honey bee behavior who was located at the USDA lab in Beltsville, MD. Jody undertook four studies on imidacloprid, a neonicotinoid pesticide. These studies addressed imidacloprid 's water contamination, systemic movement in trees, contamination effects on larval bees, and synergistic effects with other classes of pesticides on foraging behavior of honey bees. Upon graduation, she worked for over a year at a contract research organization in North Carolina

performing pollinator studies for agrochemical companies. This work informed the EPA of toxicity issues on bees based on exposure to active ingredients. Returning to Baltimore, she started her own pollinator research company, Cullaborate LLC. Currently she teaches courses in physical science, chemistry, environmental science, pollinators, and sustainability at Stevenson University and Maryland Institute College of Art. She collaborates with Cylburn Arboretum on an urban gardening project, the USDA on an invasive mite issue, and the Almond Board of California on the effects of fungicides on foraging honey bees during almond bloom.

**Abstract:** Pollinator declines are happening worldwide. Although thousands of pollinators represented by bees, beetles, moths, butterflies, flies, lizards, and many small mammals are critical to the ecosystem service of pollination worldwide, honey bees get most of the attention because tens of thousands of honey bees live socially in a hive and the hives are transportable by truck. Basically, honey bee hives represent a tremendously numerous pollination force within boxes that can be moved to specific crops. Successful pollination of agricultural crops is integral to future food security as the human population expands exponentially. The declines in all pollinators has been attributed to complex and interconnected issues of overuse of pesticides, invasive species due to intercontinental traffic by humans, habitat loss and its cascade effect on wildlife nutrition, climate change, and human management practices. My topic is to present some of the evidence that pesticides are taking a toll on both solitary and social bees. Field and laboratory assay methods to determine pesticide chemistry and exposure route, disruption of bee biochemistry, altered bee behavior, and residual compounds that inadvertently get stored in the hives by the bees will be described.

Directions to the Owings Mill Campus can be found here:

<http://www.stevenson.edu/about/maps-directions/owings-mills-north-directions.html>

Price	\$20 members/nonmembers; \$10 undergraduate students. Payable at event.
6:00-6:30 pm	Registration/Networking ( Room S-124 B/D)
6:30-7:30 pm	Dinner ( Room S-124 B/D)
7:30-8:30 pm	Presentation by Dr. Johnson ( Room S-137)
RSVP	contact-us@mdchem.org



**CCBC**  
The Community College  
of Baltimore County  
Address: 800 S Rolling Rd,  
Catonsville, MD 21228 · (410) 455-4258



Maryland



# FEBRUARY 22, 2017

## ACS MARYLAND

### EXECUTIVE

### COMMITTEE MEETING

6:30 P.M. to 8:30 P.M. Suite 010, Mathematics and Science Hall, MASH

#### CCBC HOSTS ACS MARYLAND SECTION

The America Chemical Society Maryland Local Section will hold its first 2017 Executive Committee Meeting at CCBC and would like to reconnect with your campus faculty and students. The Maryland Section wishes to invite the CCBC Chemistry Faculty to this first quarterly organizational meeting. We will begin with a brief networking period for interested faculty and students from 6:30 pm to 7:00 pm. Our Executive Committee Meeting will then start at 7:00 pm. The Maryland Section would like to thank Dr. G. Farrant and Dr. Evon G. Ford for their work in organizing the first CCBC-ACS Maryland meeting.



Maryland

*Stephanie Watson, Chair*

Email: [stephanie.watson@nist.gov](mailto:stephanie.watson@nist.gov)

#### A CALL TO CCBC COLLEGE STUDENTS

Ask your Chemistry professors to attend this meeting and voice your interests! Tell us what you think the Maryland Local Section can do for your and other community colleges. What kinds of programs are needed? Is there an active Chemistry Club on the Catonsville campus? We look forward to collaborating with you!

#### Contact your Chemistry professor or contact:

**Evon G. Ford, PhD** | Assistant Professor of Chemistry | CCBC | Essex Campus, MASH 510N | 7201 Rossville Blvd Baltimore, MD 21237 | [443-840-2675](tel:443-840-2675) | Fax: [443-840-2842](tel:443-840-2842) | [eford@ccbcmd.edu](mailto:eford@ccbcmd.edu) | *The incredible value of education.*

This flyer was made by [Beatrice Salazar](mailto:beatricesalazar1@gmail.com), Vice Chair, Maryland Section, ACS [beatricesalazar1@gmail.com](mailto:beatricesalazar1@gmail.com)



Become an ACS Maryland  
Section Member

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AWARDS

[Braude Award](#)

[Maryland Chemist Award](#)

[Remsen Award](#)

[Student Awards](#)

[Travel Awards](#)

[National Chemistry Week](#)

[Chemists Celebrate Earth Day](#)

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[Members Area](#)



Ask about upcoming events...

[www.maryland.sites.acs.org](http://www.maryland.sites.acs.org)

1<sup>st</sup> 2017 EXECUTIVE COMMITTEE MEETING

Agenda:  
6:30 P.M. - 7:00 P.M. Networking  
7:00 P.M. - 8:30 P.M. Meeting

LOCATION:  
Suite 010 of the lower level of  
the Mathematics and Science  
Hall (MASH) on the  
Catonsville campus.



## **2017 ACS Leadership Institute**

Louise Hellwig, Secretary, attended the annual ACS Leadership Institute held in Dallas, Texas, January 27th-January 29th, 2017. Several hundred participants from ACS local sections across the country were present. The conference held a variety of workshops related to increasing the success of local ACS sections. Titles included, "Planning Successful Activities", "Social Media Strategies for your Local Section", "Communicating with Your Members", "Coaching and Feedback", and "Engaging and Motivating Volunteers." This was a very educational and inspiring weekend; other section officers are encouraged to go in future years.

## **Congratulations to Travel Award Winners!**

The Maryland Section is pleased to award each of the following students \$500 to help defray expenses as they present posters at the national ACS meeting in San Francisco in April: Hollie Adejumo and Kiranmayi Mangalgi, (both from UMBC), Hannah Burdge, Paige Sudol, and James Mease (all three from Towson University), Kristen Upton and Matthew Meyers (both from McDaniel), Timothy Diethrich, Robert Sargsyan, and Reem Emad Zietoon (all three from Hood College), Tiara Hinton, Sabreea Parnell, Monet Stevenson, and Carisse Lansiquot (all four from Morgan State University). We hope the students find the meeting educational and enjoyable and that they make many valuable contacts in the world of chemistry.

## **2017 Remsen Award to Robert Grubbs**

The Maryland Section of the American Chemical Society is pleased to announce that Robert H. Grubbs, Victor and Elizabeth Atkins Professor of Chemistry at Caltech, is the recipient of the 2017 Remsen Award. The Remsen Award was established in 1946 to commemorate the career of Ira Remsen, first Professor of Chemistry and second President of the Johns Hopkins University, as a chemist, educator, and administrator. The Remsen Award Lecturers are chemists of outstanding achievement, in keeping with Ira Remsen's long and devoted career as an exponent of the highest standards in teaching and research in chemistry. Per tradition, Dr. Grubbs will present the Remsen Lecture in October in Remsen Hall on the campus of Johns Hopkins University.

## **US National Chemistry Olympiad, USNCO**

All high school students and chemistry teachers in Maryland are invited to participate in the US National Chemistry Olympiad. The local exam will take place between March 1st and March 25th. The National exam will be Saturday April 22, 2017 at the Notre Dame of Maryland University. Please contact USNCO Coordinator, Beatrice Salazar ([beatricesalazar1@gmail.com](mailto:beatricesalazar1@gmail.com)) if you are interested in participating in this prestigious competition.

## **ACS Maryland Celebrates Earth Day**

High schools in the area have been invited to participate in the Earth Day annual celebration. For the second year in a row we will tour the first water filtration plant built in USA. The Montebello Water Filtration Plant-I is 102 years old and still in excellent condition providing clean drinking water to Baltimore

area residents and neighboring towns. For more information contact the coordinator of the event, Beatrice Salazar at [beatricesalazar1@gmail.com](mailto:beatricesalazar1@gmail.com)

## 2017 Maryland Section Event Schedule

Event	Date	Location
Women Chemist Committee Dinner Meeting	March 8 <sup>th</sup>	Stevenson University
ACS National Meeting	April 2-6 <sup>th</sup>	San Francisco, CA
Student Awards	April 9 <sup>th</sup>	Notre Dame of Maryland University
Earth Day Event: Tour of Montebello Water Filtration Plant	April 21 <sup>st</sup>	Baltimore, MD
Earth Day	April 22 <sup>nd</sup>	Everywhere
USNCO US National Chemistry Olympiad	April 22 <sup>nd</sup>	Notre Dame of Maryland University
50 Year Luncheon	May	TBD
ACS National Meeting	August 20-24 <sup>th</sup>	Washington, D.C.
Remsen Award	October	Johns Hopkins University
National Chemistry Week	October	Everywhere
Braude Award	November	TBD
Maryland Chemist Award	December	TBD

If you have any ideas or suggestions about new events, let us know: [contact-us@mdchem.org](mailto:contact-us@mdchem.org)

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### REMINDER: Receiving the Chesapeake Chemist

Hopefully, if you are reading the Chesapeake Chemist this month, you are receiving it via e-mail from us. We went to electronic-only mailings to our MD ACS membership in October 2006.

**Changing your e-mail address? Moving out of the MD ACS area?** E-mail changes can be updated either by:

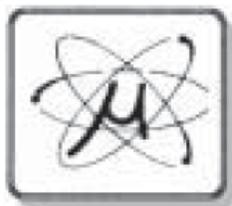
- E-mailing us at [contact-us@mdchem.org](mailto:contact-us@mdchem.org) – give us your member #, full name, and e-mail changes and we can ensure that your records are updated with National ACS.
- **Contacting the National ACS membership division: 800-333-9511 (US only)** or [service@acs.org](mailto:service@acs.org)

To ensure that you receive the Chesapeake Chemist, please add the MD ACS e-mail ([contact-us@mdchem.org](mailto:contact-us@mdchem.org)) to your accepted e-mail address list IF you have a spam filter.

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member #, full name, and e-mail address and we can ensure that your records are updated with National ACS.

The current edition and previous editions of the Chesapeake Chemist can ALWAYS be obtained via our website: <http://mdchem.org> – please see the Newsletter Archive link on the left-hand side of the website.



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