100th Anniversary of the Delaware ACS Section

For information on section activities visit our web site at:

www.delawareacs.org
Busy November

Al Denio

Much to do –
You can start the month on November 3rd at our National Chemistry Week Celebration. Then you get to vote on November 6th, and then wait for millions of campaign signs to come down (luckily our development does not permit lawn signs). The World Series will be over but lots of football will keep you distracted. Then there is deer hunting season and Thanksgiving. Before you know it, you will be busy with the Christmas season preparations. I hope that you survive the month!

The Perkin Medal –
This impressive award went to Barbara Minor on September 25. There is a nice article in C&E News on September 24, which describes her background as a chemical engineer from Bucknell University who joined DuPont in 1981. In 2014 she was named a Corporate Fellow by the company to recognize her work on developing new refrigerant compounds that did not damage the ozone layer or contribute to global warming.

After the Dow DuPont merger, Minor made the transition to Chemours. She has 23 published papers and over 160 U.S. patents so far. When she started at Bucknell, she was a biology major. Luckily she converted to chemical engineering where her efforts have helped provide safer refrigerant compounds to keep us cool, as the world gets warmer.

Cannabidiol (CBD) is now a legal (in the U.S.) compound derived from marijuana. It is important in pain relief and has been very helpful to one of my friends.

Now Coca-Cola is thinking about using it as an ingredient in “functional wellness beverages.” Not to be outdone, several breweries are also showing interest. I consider beer as a “wellness beverage” even without CBD!

Hurricane Florence –
The Carolinas have suffered greatly from this storm. The recovery will take many months. It is estimated that only about 3% of homeowners had flood insurance since flooding of this magnitude is unheard of.

The September 15 issue of the N.Y. Times had maps showing pig farms, coal ash ponds, Superfund sites and chemical sites. The potential for damage is scary indeed.

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2018 Year in Review

The weather has finally turned cool as 2018 is quickly winding down. I would like to take this opportunity to reflect on the 100th year of the Delaware Local Section. Overall, the Section had a good year in 2018 even though it has been a year of change.

Before the 2018 year in review, I would like to acknowledge Sheree Gold and Julie Brady. I would like to thank Sheree Gold, editor of the Del-Chem Bulletin, for her effort in producing the Del-Chem Bulletin for the past 20 years. This is her last issue as editor. I would like to thank Julie Brady, Delaware Section, Secretary. She has been Secretary since 2012. She will be stepping down at the end of the year.

The Section has diversified the meeting format and increased the number of events. The different formats are meant to appeal to our members who have different schedules and preferences. Dr. Piril Ertem, Chair 2018, focused on joint meetings, networking, recognition meetings, and community outreach.

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Disclaimer: The views and opinions expressed in the columns are those of the contributors and do not necessarily reflect those of the Delaware Local Section.
Joint Meeting of Delaware Valley SAS and Delaware ACS ChemVets Group

Topic:  Raman Imaging and Multivariate Curve Resolution of Meteors, Meteor Impacts and Art

Date:  Wednesday, November 28, 2018

Speaker:  Prof. Karl Booksh, University of Delaware

Location:  Delaware Biotech Institute; 1 Innovation Lane, Newark, DE; Room 102DBI

Time:  Buffet dinner at 6:00; Presentation at 7:00; $20 for dinner; students free

Dr. Karl S. Booksh

Biography:
Dr. Karl S. Booksh is a Professor in the Department of Chemistry at the University of Delaware. He holds a B.S. in Chemistry from the University of Alaska (1990) and a Ph.D. in Analytical Chemistry from the University of Washington (1994). His honors include a National Science Foundation CAREER Award (1997-2001) and a Camille and Henry Dreyfus Award (1996)

The overarching theme of his research group is the development of in situ chemical sensors for environmental, biomedical, and industrial process monitoring. His research is predicated on the belief that it is better to build small chemical sensors capable of reliable measurements in the field or in the process than to collect samples for future laboratory analysis. Booksh is focusing largely on fiber optic surface plasmon resonance, Raman, and fluorescence sensors. Chemometric analysis of collected data and multivariate sensor calibration are also major research directions. He is the author of over 80 peer-reviewed articles.
This year marks the 100th anniversary of the Delaware ACS Section. The Section is rich in tradition, heritage and members who have contributed to its mission. Most, if not all, accounts of the Section’s history can be found in articles published in the Del-Chem Bulletin that was first published by the Section in October 1944. Original copies of the Del-Chem Bulletin, from 1944-1998, are archived in the Special Collections Section at the University of Delaware, Morris Library. Copies of all publications are also located in the University library up to 2017. Starting in 2006 electronic copies of the Bulletin were published and are available at the Delaware Section’s web site [www.delawareacs.org](http://www.delawareacs.org). Table 1 shows the chronology of Delaware Section’s History. Figure 3 shows a photo of the original certificate issued to the Section in 1917 by National ACS.

Accounts of the original charter and organization as a local Section in the National ACS are documented in the first edition of the in an article (Delaware Section – Historical Highlights) written by R.F. Reese (former secretary of the Delaware Section) in 1944. He states that in 1917, the DuPont Experimental Station was considered as a nucleus of the chemical industry and a focal point for chemical knowledge and research about chemicals used and produced during the World War I era. The Bulletin was described as a “New Reaction” by then Chairman R. W. Cairns, a research chemist at Hercules. It replaced the “Catalyst” which before the fall of 1944 served as the publication for the Delaware, Philadelphia and South Jersey Sections. There were ties with the Philadelphia Section and South Jersey, since the Section embraced the territory of Delaware and Salem County in New Jersey during the early meetings, but they eventually became separate Sections when the New Jersey members petitioned for withdrawal in March of 1920. The meeting places of the Delaware Section were a catalogue of various inns and assembly halls in Wilmington. They started with the Nobis Hotel and continued with such names as the Rodney Square Inn, Trinity Parish House, Tower Hill School, the Y.M.C.A, the Hotel DuPont and others. The most unusual meeting place of all was on a ferry boat en route to a joint outing by the Delaware, New Jersey and Philadelphia Sections in Pennsgrove, NJ on the Wilmington Pennsgrove Ferry. The first officers of the Section were Lammot du Pont, Chairman; R.P. Calvert, Secretary; C.M. A. Stine and Firman Thompson, Councilors. The first record of a gathering was for the first anniversary meeting in December 1918. The membership started with 149 and increased to over 300 within a year. Membership

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100th Anniversary continued from page 5

gradually increased to well over 900 and the Section covered an area which might have been named “The Chemical Capital of the World”. The next 50 years of history of the Delaware Section were published in an article and special issue of the Del-Chem Bulletin in May 1967 written by Herman Skolnik (A Fifty Year History of the Delaware Section). Herman was chairman of the Delaware Section in 1962 and wrote this article for the 50th Anniversary Committee. He is also recognized by the Delaware Section by the Emma June Tillmanns-Skolnik Award given each year to recognize and encourage singular achievement in service to the Delaware Section that has contributed to the content of Section programs to administer function of the Section or to improve the public perception of the Section. This thirteen page article gives a complete historical account of all the Section’s meetings, events, member activities, accomplishments, awards and list of Section officers and committees starting from 1917 to 1967. On May 17, 1967 the 50th Anniversary Celebration was held at the DuPont Country Club. Interestingly, the invitation notes that it was the Annual Ladies Night followed by a reception, cocktails, banquet dinner, dance and music by an orchestra, all for $4.50 per person. In Herman’s final paragraph he reports “that the Section had grown tenfold in membership, that it was a Section of maturity whose members assumed important posts in the National ACS organization and in the ACS publications programs. He states that the Section was highly motivated in serving its members and a Section that plans to do even more the next 50 years”. This article mentions some of the outstanding members of our Section both in industry and academia that contributed to our community, taught students, and advanced our profession during this time. Names of professors such as Bill Mosher U of D, research scientists Wallace Carothers (DuPont) and, Robert Cairns (Hercules) were officers in our Section and were actively involved in the Section’s functions, events, symposia, public outreach and Regional and National meetings.

The next 50 years of our Section’s achievements, activities and accomplishments of its members are documented in monthly publications of the Del-Chem Bulletin too. As a 50 year member of the ACS and Delaware Section, as well as a self-appointed historian, I will try to report on where Herman left off in 1967 and highlight some of the activities and accomplishments of our members and Section up to the present.

In 1967 there were approximately 2900 members in the Section and the 50th Anniversary meeting was attended by 321 members. The executive committee meetings were held monthly at various venues in Wilmington and Newark. The University of Delaware Department of Chemistry and Biochemistry, and Chemical and Biomolecular Engineering Departments were actively involved in Section activities. University professors and instructors from other colleges in Delaware

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were members of Section technical committees, served as officers and gave lectures on their research in their respective chemical disciplines. It was reported that they even volunteered to teach about chemical warfare when needed. Both industry and academia were connected to research and development projects and graduate students worked on projects supported by grants from the government and industry. During this time the Del-Chem Bulletin was published 8 times a year (January-June, September, October, November/December), elections were held annually for officers with an awards recognition program and invited speakers for lectures and presentations at committee meetings and at public outreach functions. There were technical lectures and symposia and social functions. The Delaware Section also hosted Middle Atlantic Regional Meetings (MARM) during this time. Picnics were held at Hercules Farm, along with dances, Ladies Night Out, and golf outings at the DuPont Country Club. Early in the 1970’s, there was a resurgent interest in the chemical industry in safety and occupational health with the passage of the Occupational Safety and Health Act (OSHA) during President Nixon’s term. It was during this time that I joined DuPont’s Haskell Laboratory for Industrial Medicine and Toxicology and became an industrial hygienist. There was also an interest in conservation and recovery of natural resources, toxicology, the environment, and public health. In 1971, the Coastal Zone Act was passed in Delaware to preserve the Delaware River Waterway and Coastal habitats from pollution and encroachment. The Act was proposed by Governor Russ Peterson, a former DuPont chemist and member of the Delaware Section, who was committed to protecting the environment. These were exciting times for Delaware Section members involved with new technologies, advances in analytical instrumentation, and discovery of new products such as Kevlar by Stephanie Kwolek in 1965 and Tyvek by Jim White in 1967. Steve Dal Nogare developed gas chromatography in 1965 and Jack Kirkland and Lloyd Synder were recognized for their work on modern liquid chromatography for analyzing samples and separating mixtures. These were just a few of DuPont chemists and Section members that I remember receiving awards, teaching courses and being recognized for their contributions to the chemical profession. In 1976, during the 100th Anniversary celebration of the National ACS, our Section awarded the first Carother’s Award given to major contributors to industrial chemistry. Also, in 1976, a survey of approximately 2,700 members of the Delaware Section revealed that the median age was in the low 50’s with about 10% being 65 and over. Consequently, the Section appointed Herman Skolnik to establish how it could give these members a greater sense of inclusion in the ACS. On the premise that retirement does not make one a lesser chemist or less interested in chemistry, a meeting of retired chemists was held on May 19, 1975, to explore the feasibility of forming a retired chemists group. Attendees welcomed the opportunity to be included in the Section and to form the ChemVets. The first formal meeting, was continued on page 8
held on January 20, 1977 and the second on April 14, 1977. Two meetings were also held in 1978. Thereafter, a minimum of four meetings per year were scheduled, with attendance averaging about eighty. In 1981, the Section asked the Chem-Vets to organize and run a symposium on retirement as a regular Section meeting on January 23rd. Three hundred members attended. The ChemVets were also invited to repeat the symposium at the University of Delaware for the Middle Atlantic ACS Regional Meeting. Since then, the ChemVets Steering Committee meets about six times a year to plan meetings and programs. Usually ChemVets have six speakers a year and meet for lunch at the DuPont Chestnut Run Laboratory site cafeteria followed by a presentation across the mall in building 713 auditorium. The presentations are free and open to the public. Members of ChemVets have remained active in ACS affairs, serving as councilors and alternate councilors of the Delaware Section as well as serving on numerous committees. The current Chair of the ChemVets is Bruce Frye.

In the 1980’s, changes began to take place in the chemical industry as new business opportunities were beginning to develop in biotechnology and pharmacology. Companies were considering diversifying their business units and some even spun off as separate companies like Gore. In 1980 joint ventures between DuPont and Merck Pharmaceutical Company formed (DuPont Merck Pharmaceutical) in order to compete and survive in the global marketplace. These changes impacted membership of our local Delaware Section, the Section programs and activities. The Section responded to these changes by inviting new members to participate in our program to encourage networking between chemical and biological sciences. This fostered better understanding and appreciation of biological life science contributions to chemistry in the biotechnology era that followed in the 1990’s.

In 1992 Herman Skolnik wrote his last article about the history of our Delaware Section (75-Year History of the Delaware Section) that was published in the Del-Chem Bulletin, Nov/Dec.1992. In that article he reported that even though our membership dropped in the 75th Anniversary of the Section to 2500 the national ACS still held our Section in high regard as an outstanding example for responding to change. He also acknowledged that he was recruited to write histories of the Section for many years, but was not named historian until 1981.

With the advent of the turn of the century in 2000, our Section began to see the evolution of a new frontier in chemistry, “green chemistry” and the need for sustainability and less dependency on our natural resources. In 2002 the DuPont Company celebrated its 200th Anniversary at Winterthur’s Museum and Gardens. There were concerns about new leadership and direction of the company. There also were concerns about climate change due to the depletion of ozone by
chlorofluorocarbons released to the environment and global warming caused by carbon dioxide emissions from burning fossil fuels. The Section once again responded to the challenges to its program by focusing on new and alternative approaches for members to contribute and participate in green chemistry ventures and activities to preserve our environment. One such activity was to participate in Earth Day and invite speakers to talk and present innovative solutions to improve products and reduce waste by recycling processes. The Section also responded to the economic crisis, when downsizing caused many of local Section members to lose their jobs. In 2016, the Section sponsored a career workshop for local chemists affected in the Section to help them write updated resumes, interview for jobs and employment opportunities. Also, in 2015, DuPont and Dow announced plans to form a joint business venture (DowDupont) and a spin off company Chemours was formed. Networking meetings were sponsored by the Section to encourage communication with other members in the Section and businesses seeking new employees. Recently, our Section learned that it was nominated to receive one of the ChemLuminary awards at the fall ACS meeting in Washington, DC, in 2017, for sponsoring this event. In the area of government affairs, John Gavenonis, a member of our Section, has been active in a program with state representatives in our legislature and continues to help them understand how to interpret data for people who make laws and regulations that may impact the chemical industry and future research. In February 2017, he and Dr. Malcolm D’Souza, from Wesley College in Dover, welcomed Senator Chris Coons to the campus to learn about how funds received from a National Science Foundation Grant provided support for minority students to succeed in Science, Technology, Engineering, and Mathematics (STEM) fields. In all, our Section has accomplished many things, has reached out to many places in our state, served the members of our Section and people in our community. That is what history is about, “people, places and things.” It’s really these people who have served our Section as officers, participated in our programs volunteered and devoted their time during these challenging economic times that have made it a success. Examples of some of the annual community activities and programs include National Chemistry Week Celebration with Mike Stemniski’s science show in November, the Awards recognition program in the Spring where high school teachers and students are honored with certificates, the Carother’s and Delaware Section Award is given as well as competitive chemistry exams in the Science Olympiad, which was organized by Marge Christoph for many years. Marge had previously received the first Delaware Service Award, the Emma June Tillmans-Skolnik award back in 1985. I should also mention the contributions of John Burmeister and Burnaby Munson, professors from the University of Delaware, who have been active in recruiting student affiliates to ACS and naming outstanding chemistry students for recognition each year. John Burmeister also provided a
historic record and list of all the University of Delaware, chemistry professors and their participation in local Section activities through the years. Al Denio, another UD professor, has written monthly columns in the Del-Chem Bulletin about Section members, places and things that they have done. My list of names could go on and on, so I decided it might be best to recommend and suggest that we list all Section officers, Del-Chem Bulletin Editors, and outstanding Section leaders that have contributed to the program the past 50 years and recognize them for their accomplishments just as Herman Skolnik did in previous Anniversary issues of the Del-Chem Bulletin. This includes the three Noble Laureates from our Section, Daniel Nathans 1978 (UD grad), Charles Pedersen 1987 (DuPont) and Richard Heck 2010 (Hercules & UD). Also, the Section should be proud of our Section members who have been president of our National ACS - Robert Cairns (1968 Hercules), Paul S. Anderson (1997, DuPont Merck Pharmaceuticals), and Edel Wasserman (1999 DuPont). Thomas Connelly (2017 DuPont) currently serves as the ACS Executive Director and CEO. There are many other names and persons in our Section that I have failed to acknowledge particularly in the University of Delaware, Chemistry Department, and other colleges, but not forgotten for their service in the Section and educating students to be future chemists and serve in our Section. I encourage them to seize the opportunity to become a member of ACS and Delaware Section. Currently, the Section is ranked as a Medium to Large Section by National ACS. I have included a graph of the number of members vs years from 1917 – 2017 to show the rapid growth of the Section and decline in membership since 1967 (Figure 1). Finally, I want to give credit to Herman Skolnik for being the official Historian of our Section and preserving the 100 years of history of the Delaware Section. I am confident that the Section’s future is promising as long as its members continue to volunteer and devote their time to support the Section.

In closing, the history of the Delaware Section has seen many changes and faced many challenges due to economic, social and political events that have occurred the last 50 years. There has been a decrease in membership, lack of participation in Section activities, restructuring of local companies, general downsizing of chemists in industry and limited financial support from struggling businesses for graduate studies in research and development in academia. Diversity, chemical safety, and climate change are key topics and issues to be resolved in the workplace, academia and the environment. Both our Section and National ACS have responded by sponsoring network meetings, employment workshops on career development and various webinars and educational courses on websites. The biggest change has been to improve communication by utilizing the latest technology in scheduling meetings (Doodle), conference calls during lunch (Skype) and presenting on-line educational courses and outreach programs for all members to participate. While we might have lost face to face communication because of demanding work schedules, competition continued on page 11
to succeed and obligations to family, we have tried to increase awareness and the contribution of chemists to our society and global environment. The next 50 years will be challenging too, but I expect technological advances in information science and innovative conscientious chemists will lead the way to a successful future.

Norman W. Henry III, MS, CIH, FAIHA
Alternate Councilor, Delaware ACS 2018

Figure 1. Delaware ACS Section Membership 1917-2017

Local Section 1917–2017 District III L-300
Committee Organization:
Executive — Chair, Chair-Elect, Secretary, Treasurer, Directors, Councilors, Alternate Councilors
Standing — Awards, Chem Vets, Education, Nomination, Government Affairs, By-Laws

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<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1876</td>
<td>ACS Founded</td>
</tr>
<tr>
<td>1802</td>
<td>DuPont Company founded</td>
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<tr>
<td>1902</td>
<td>100th Anniversary of DuPont Company in US</td>
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<tr>
<td>1903</td>
<td>Experimental Station founded 16 employees</td>
</tr>
<tr>
<td>1904</td>
<td>DuPont Hotel and Headquarters Building in downtown Wilmington</td>
</tr>
<tr>
<td>1917</td>
<td>Delaware Section founded. (See photo of Original Certificate issued in 1917 by ACS provided by Martha Hollomon) Figure 3.</td>
</tr>
<tr>
<td>1918</td>
<td>First Anniversary December</td>
</tr>
<tr>
<td>1920</td>
<td>DuPont Country Club founded</td>
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<tr>
<td>1944</td>
<td>First Publication of Del-Chem Bulletin (Delaware Section Historical Highlights) R.F. Reese Secretary of Delaware Section 1944. Was 15th Local Section Publication.</td>
</tr>
<tr>
<td>1954</td>
<td>Haskell Laboratory moved to Stine-Haskell Research Center as Industrial Toxicology Lab</td>
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<tr>
<td>1967</td>
<td>50th Anniversary of Delaware Section (Fifty Year History of the Delaware Section) Herman Skolnik</td>
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<tr>
<td>1976</td>
<td>100th Anniversary of ACS</td>
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<tr>
<td>1977</td>
<td>Chem Vets held first two meetings</td>
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<tr>
<td>1981</td>
<td>Chem Vets ran Symposium at the University of Delaware on retirement</td>
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<tr>
<td>1984</td>
<td>40th Anniversary of Del-Chem Bulletin</td>
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<td>1994</td>
<td>50th Anniversary of Del-Chem Bulletin</td>
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<tr>
<td>2001</td>
<td>125th Anniversary of ACS</td>
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<tr>
<td>2002</td>
<td>200th Anniversary of DuPont Company</td>
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<tr>
<td>2006</td>
<td>Del-Chem Bulletin published electronically</td>
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<tr>
<td>2016</td>
<td>Dow and DuPont Companies announce joint business agreement (Dow Dupont) and a new spin off company Chemours was formed as a separate company.</td>
</tr>
<tr>
<td>2017</td>
<td>100th Anniversary of Delaware Section</td>
</tr>
</tbody>
</table>
Figure 2. Picture of 2017 Executive Committee Members:

Members from left to right: Martha Hollomon (councilor), Giang Vos (chair), Rakesh Nambiar (alternate councilor), Norman Henry (alternate councilor), Andrea Martin (director), Piril Ertem (chair-elect), Tiffany Hoerter (councilor), Julie Brady (secretary), Allison Moore (director), Kim Huynh-Ba (alternate councilor). Not present Peiwen Zheng (past chair), Alicia Briegel (treasurer), Biswajit Choudhury (director), John Gavenonis (councilor), Maggie Schooler (councilor), Nora Radu (alternate councilor).

Figure 3. Photo of Original Certificate Issued to Our Section by National ACS in 1917
Date: Wednesday, January 16
Time: Reception at 6:00 pm; Talk at 6:30 pm
Speaker: Sara Jane Ward, Assistant Professor of Pharmacology, Lewis Katz School of Medicine, Temple University
Topic: Cannabis as Medicine
Location: DuPont Country Club, Wedgwood Room, 1001 Rockland Road, Wilmington, DE 19803
Cost: $10 at the door for members and non-members, free for students
Hors d’oeuvres and cash bar will be available
Contact: RSVP to Rob Mishur at rjmishur@widener.edu or call/text 708-927-9780
National Chemistry Week

Membership surveys show that you want more articles in our newsletter. If you tell our advertisers that you saw their ad here, they will provide more financial support and this will allow us to add more articles.
National Chemistry Week

100th Anniversary of the Delaware local section of ACS

Periodic Table of the Elements
Al Denio continued from page 2

North Carolina is home to 9.7 million pigs that produce 10 billion gallons of manure per year. That manure is stored in earthen lagoons, many of which have now overflowed. We are talking about a major health crisis!

Then there is the Duke Energy coal ash disaster. They shut down a power plant near Wilmington, N.C. when a dam failed and allowed the flooding of a major coal ash storage area. This will release lead, arsenic and other heavy metals into the water.

It is only a matter of time until Delaware takes a direct hit from a major storm.

The lowest state in the U.S. will be mostly under water. Our many Superfund sites will be submerged. Our poultry industry will suffer and poultry manure will be released. Our coastal tourist business will be wiped out. If we live long enough Val and I may own beachfront property in Newark! Like it or not, climate change is here and will get worse.

*Have a great month!*
CHAIR’S COLUMN continued from page 3

ACS Delaware/DE ChemVets/ SAS
January – Dr. Pat N. Confalone – “Reflection of Nine Years on the ACS Board”
April – Dr. Peter Griffiths – “50 Years of GC/FT-IR”
May – Dr. George P. Lahm – “Building an Innovative Culture: Discovery of Modern Crop Protection Chemicals”
September – Dr. Robert Margolskee – “How the Chemical Senses Shape Health & Nutrition”
Ullyot Public Affairs Lecture with Science History Institute and Philadelphia Section of the American Chemical Society – Dr. Jennifer A. Doudna – “CRISPR Biology & Biotechnology: The Future of Genome Editing”
November – Dr. Karl Booksh – “Raman Hyper-Spectral Imaging Applied to Mineral Identification in Meteorites, Meteorite Impacts, and Art”

Networking
February – BBC Tavern & Grill, Happy Hour
May – Santa Fe Mexican Grill, Happy Hour with University of Delaware Women in Chemistry

Recognition
Delaware Section Award – Dr. Xinqiao Jia, University of DE
Carothers Award – Dr. Dennis Liotta, Emory University 50-, 60-, 70- year Members listed in the October 2018 Del-Chem Bulletin

100th Anniversary Celebration of the Delaware Section of the American Chemical Society – numerous issues of the Del-Chem Bulletin were on display including the 50th and 75th anniversary celebrations of the Delaware Section. Also on display were numerous ChemLuminary Awards received, and some historical items from DuPont. Please visit the University of Delaware’s Brown Laboratory lobby in the near future to see the display of these items.

Community Outreach
National Chemistry Week (NCW) Open House at The Independence School. Many volunteers spent a lot of time. The Open House had almost 200 kids plus adults and 50+ volunteers. The Section is particularly grateful to Michael Stemniski, ACS Fellow, who once again performed an outstanding demonstration of chemical feats and wonder. Some notable features of his show are orange juice clock, elephant toothpaste, methanol cannons, oscillating clock reactions, flame test, ammonia fountain, fire cyclone, and fire jug. In addition this year, the Section received a NISE grant, thanks to the efforts of Maggie Schooler. We received nine different hands-on activity kits which are designed for classroom setting or other smaller groups.

In conclusion, I would like to thank all the people that have contributed their time and energy to the various activities and programs in 2018. I would also like to thank all of all for your participation and support of the Delaware Section. I am confident that the Section will continue to do well under the leadership of Robert Mishur in 2019.

Martha Hollomon
Interim Chair
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- http://membership.acs.org/D/Del/#Jobs
- http://pubs.acs.org/chemjobs/

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Calendar of Events

November 28  Joint Meeting of Delaware Valley SAS and Delaware ACS
               ChemVets Group, Professor Karl Booksh, University of
               Delaware, “Raman Imaging and Multivariate Curve
               Resolution of Meteors, Meteor Impacts and Art,” Delaware
               Biotech Institute

January 16  Delaware Section Meeting, Sara Jane Ward, Assistant Professor
            of Pharmacology, Lewis Katz School of Medicine, Temple
            University, “Cannabis as Medicine,” DuPont Country Club