

Newsletter for Senior Chemists

November 2020



The year 2020 continues to present challenges. I am excited to see the ways that senior chemists have adapted and have a significant impact in the American Chemical Society and beyond.

Senior Chemists Committee events associated with the virtual Fall National Meeting were very well-attended. SCC had an exciting presence at the virtual expo. Committee associate Robert Yokley prepared a video tour of an antique chemistry set that was a strong attraction for attendees. You can view the video at https://vimeo.com/443086247 or click the image below and reminisce about the good old days.

The traditional SCC breakfast was modified for a virtual audience. With many time zones attending, the breakfast became a Coffee Social with the theme "ACS in a Challenging Year of Social Change." This session was extremely popular with almost 400 attendees including many international ACS members. The video recording of the event is available at https://bcove.video/2FXAhH5.

Under Milt Levenberg's leadership, the SCC collaborated with the Younger Chemists Committee (YCC) to host an excellent networking session for undergraduate students and others seeking knowledge about chemistry careers. While we could not provide the usual ice cream for attendees, 25 participants were selected to receive ice cream gift cards. This session also attracted a large number of international students.

It has been exciting to note the significant attendance at all our events by international senior chemists and particularly students. We will need to think about ways to continue to provide event access to those who are not able to attend in person, reaching persons who are unable to travel due to disabilities or family commitments, as well as chemists around the world. Future events are no doubt going to include hybrid models with local and remote participation.

The Newsletter team, with Lynn Hartshorn as Editor, has gathered another set of great articles for this issue. One of our strategic goals is increasing engagement with community groups to encourage chemistry careers. The article about the chemistry merit badge and the Boy Scouts of America (BSA) National Jamboree is a great example for individuals. Local sections will be interested in learning about how the Illinois local sections have an annual presence at the Illinois State Fair, taking chemical information to a broad community.

Since the most recent issue, I regret that we have lost two contributors. R. Stephen Berry, a University of Chicago scientist who spent his life making groundbreaking contributions across the fields of chemistry and energy policy, died on July 26, 2020. His article "A Very Interdisciplinary Course" was published in the SCC Summer 2020 Newsletter. J. Ernest Simpson, a dedicated and thoughtful member of SCC, whose article "Vocation and Avocation" also appeared in the Summer 2020 SCC Newsletter, died on September 19, 2020. He had spent 40 years at Cal Poly Pomona and was known for his presentations on the Chemistry of Wine.

SCC continues activities that support the recommendations that were proposed during the "Senior Chemist Action Agenda to Address Systemic Racism" webinar. The report is now available by request to **seniorchemists@acs.org**. Look for continued work on this challenge by the SCC. This issue of the newsletter provides an interesting article about one viewer's reaction to the webinar.

Thanks to you for reading the Fall SCC Newsletter. Stay safe!

Arlene Garrison - Chair, Senior Chemists Committee

The Senior Chemists Virtual Booth at the ACS Fall 2020 Expo



From August 17-20, more than 6,000 attendees for the ACS Fall Virtual National Meeting had an opportunity to visit the Society's first Virtual Expo to meet and interact with exhibitors, make connections, and discover new technological developments in our industry. The virtual expo consisted of On-Demand Oral Technical Presentations, Posters On-Demand, and interactive booths that included the Senior Chemists Booth. The SCC subcommittee members who led this new initiative were Lol Barton, Jane Thomas, and Robert Yokley. The Senior Chemists Booth featured a special video prepared by Robert Yokley. Do you remember the Gilbert Chemistry Experiment Labs for Kids? Click the image above, check out the video, and take a walk down memory lane. Enjoy!

And the Winners are...!!!!

Close to 100 chemistry professionals, undergraduates, graduates, and younger professionals came together for a networking session on Sunday, August 30. This Ice Cream Networking Event is cosponsored by the Committees on Senior Chemists and Younger Chemists and is held during each national meeting to give students and experienced chemistry professionals an opportunity to talk about career choices and experiences. It was held virtually for the first time and featured guest panelists: Stephanie K. Ramos, STEM Leaders Program Coordinator for Oregon State University; Katie Heroux, a Fellow Program Manager at the Savannah River National Laboratory; and William F. Carroll, Jr., former ACS President and Board Chair, Founder of Carroll Applied Science, LLC, and Adjunct Professor of Chemistry at Indiana University. As stated, the first 25 registrants and participants of the event received a special frozen treat from Cold Stone Creamery. Congratulations to Mayank Bahuguna, Amber Camarena, Cord Carter, Mina Chanakira, William Chang, Ulyana Cubeta, Giacomo DiMauro, Holly Flores, Avianna Gay, Kayla Hauer, Joseph Houck, Jaclyn Kellon, Alexander Kim, Liz Larocque, Duvaughn Mahabee, Catherine Miles, Karli Mokshefski, Jeweliana Moore, Zaida Morales-Martinez, George Papoutsidakis, Natasha Perry, Eric Peterson, Jiaheng Ruan, Despina Strong, and Bill Welker.





The 22nd Annual ChemLuminary Awards ceremony will be held virtually on Wednesday, December 9, at 4:00 p.m., Eastern Time. The ceremony will include a keynote address by Janet L. Bryant, recipient of the 2020 Award for Volunteer Service to the American Chemical Society, and the presentations of awards given by 23 committees of the Society will follow. The Senior Chemists Committee will present awards to two Local Sections. Please register to attend the event at https://cvent.me/gZw40n and cheer on our winners!

Resilience, Relief, and Recreation During COVID-19

I Didn't Sign Up for This!

by Valerie Kuck, Member of the Senior Chemists Committee

This year started off well. The Christmas decorations were tucked away. My thank you notes written. It was time to prepare for the visit of a long-time friend. Foolishly, I thought all was right with the world. Then there was news that there had been an unexplained cluster of deaths in Washington. A few weeks later, there was an announcement that the mayor of San Francisco had instituted a stay at home order. My son, who lives outside of San Francisco, was strongly encouraged to work from home. I had no idea how my life and that of many others was going to be significantly changed.

During the fall in the 1950's, I remember quite well the spread of the polio virus in the northeast and midwestern states. I lived in Milwaukee, Wisconsin, and in response to the spread of the virus, the start of K-12 schools was delayed a few weeks. I liked school so I was disappointed not to be back with my classmates. What impacted me more was that I was forbidden to go outside of my house and yard. To enforce compliance with the new ordinance, it was publicized that any child caught outside of their property would have their father placed in jail for that night. I do not know if they ever applied the penalty, but this ruling had the desired impact. Slowly, I learned several of the neighborhood children who came down with polio were paralyzed. I remember being scared!

I had no idea that I would be in a similar situation again in my lifetime. My daughter, who is a doctor, strongly advised me to cancel just about all my activities (if you have adult children, I think you know how they can forcefully express their opinions). It was okay to keep my doctor appointments, but that should be it! No more visits by her family for Sunday dinners. The housekeeper was stopped and no more professional haircuts. I was leading a solitary life. After a few weeks, I longed to be able to walk down a grocery aisle, select items, and exchange smiles with the other shoppers. As the death toll continued to climb, I realized my house had become my kingdom. My home was my only safe place.

Quickly, I drew up a list of chores that I had been saving for a rainy day (which is very infrequent in San Diego). With vengeance I tackled the closets, then the dresser drawers, followed by the garage. My garden needed love, so off I went with clippers in hand. I reached out to old friends who also were confined to their homes. We shared our new lifestyles. During those days, I was a human dynamo! Over time, my enthusiasm has dwindled, and I pine for the old days. I frequently wonder when we all will we go back to a "new normal." It will be great to push my grocery cart down the aisle again.



Bring Your Hobby with You

by Joann Bonner, retired homemaker, West Lafayette, IN

Six years ago, at age 73, I moved into a retirement home. One that my husband and I had looked into but he passed away before we could move. During downsizing to move, I gave away most of my household furnishings and personal possessions, but there was one item I definitely needed to keep, my sewing machine.

During 52 years of marriage, I had made clothes for my husband, daughter, sons, parents, and other relatives. I made everything from shirts and pants to bridesmaid dresses. One year, I made beach towels for all the kids in my extended family. In the 1970's, material was cheaper than ready made. As time passed, I made American Doll wardrobes and did some quilting. So of course, I brought my portable sewing machine with me to my new home.

In spring 2015, a call was put out by the retirement community for anyone interested in sewing. Since I had time on my hands, I went to see what was going on. I found out that our retirement home has a bazaar every year in the fall and they needed homemade items to sell to the public. The proceeds from this bazaar are used to help support residents in the community who need assistance paying their fees, usually in the last years of their life. When Westminster accepts you and you move in, they promise that you can live there for the rest of your life.

They had patterns to make stuffed animals that looked interesting, so for the first time in my life I started making dogs, cats, lambs, ponies, frogs, giraffes, elephants, and foxes. It takes about eight hours to complete an animal. You need to select the fabric, cut it out, make the eyes and sew them on, then sew it all together. Turn it right side out and stuff it, sew up the hole and sew on the eyelashes, and you have the stuffed animal.

My sewing machine now sits on a TV tray in my bedroom and is in use constantly. I have time to spare now that I don't have to cook or clean for myself, so I have volunteered to make the animals every year since then. I have been asking everyone I see for material. A lot of people have saved fabric for years and I take everything they offer. Another source of material is fabric samples from fabric stores and upholstery stores. I have not had to buy any fabric for the last six years. And because the material comes from many places, I have a great variety of patterns and colors.

I now create "THE ZOO" every year for our Bazaar, making 60 plus animals. YOU ARE NEVER TOO OLD TO TRY SOMETHING DIFFERENT.

Joann lived her whole life in Lafayette, IN where her husband was a banker. After his death in 2014, she moved to the Westminster Village Retirement Community where she currently resides in an independent living apartment near Anna Wilson, an associate member of the Senior Chemists Committee, who referred this article.



Senior Chemists' Actions to Address Systemic Racism Webinar

by Valerie G. Hollingsworth

In one of our frequent telephone visits this summer, my sister (Adriane G. Ludwick) was excitedly telling me about a webinar the ACS Senior Chemists Committee was planning in the wake of the George Floyd tragedy. The ensuing reaction across the country inspired their looking inward as individuals, as professionals, and as part of the ACS. My sister welcomed me to register for this webinar...and I did!

There were three chemists and a non-scientist who participated on the panel. I have a B.A. in French and my professional work has largely been in Volunteer Management. Adriane encouraged me to participate in the webinar because the discussion would impact all.

The webinar was enlightening on many levels. Certainly, the action to discuss and share the often invisible topic of systemic racism is a step in itself. I noted that three of the speakers were women with advanced degrees. Color aside, they additionally experienced a negative bias simply because they were women. People who exercise this type of bias are often barely aware of it and may well not realize they are doing anything wrong.

Each of the four panel members, in different ways, made significant impressions on me. Dabney Dixon made many good points about her experiences, but in particular her discussion of mentoring resonated in me. She urged greater effort through the ACS to offer support for STEM programs. She was well aware of the good work done through Project SEED, but doing more could pave the way for a more diverse group of future young scientists.

Isaiah Warner spoke of having early and frequent discussions with his sons on how to respond to a police stop. He knew this could happen to them simply because they were young black men. The level of stress that this underlying knowledge would bring to a young person was enlightening to me.

Lucenia Dunn spoke about growing up in the deep South as a black person. It surprised me to learn that she really did not have much contact with white people until she entered graduate school, but that did not take away from her early indoctrination of "how to act". It was just something you knew you had to keep in the back of your mind. Despite these obstacles, Lucenia had an extraordinary career and kept an open and welcoming mind. She ended her segment saying, "Whoever you are, come and sit down at my dinner table and we'll talk".

In listening to Denise Barnes, I wondered what specifically helped her to overcome systemic racism? As the ACS moves forward with a heightened awareness of places within the organization where this may come to play, each of these panel members offered excellent starting points: mentoring; childhood indoctrination; openness; and reflection. To me, the webinar offered an excellent beginning for the ACS and for all of us. I am grateful to have been a participant.

SCC is currently working on initiatives that will be introduced in 2021. If you have any further thoughts on ways to address systemic racism in the chemical enterprise, please share them with us at seniorchemists@acs.org.

Living Defensively by Ken Fivizzani Originally published in ACS Industry Matters, July 30, 2020

Our health and safety can be threatened anytime by unforeseen circumstances beyond our control. What can we do to protect ourselves, our co-workers, and those whom we love? What could possibly happen that could result in injury or death? What can I do to protect others as well as myself from that injury?

With appropriate education, professional scientists can evaluate potential hazards in a laboratory environment. Is personal protective equipment (PPE) needed? Is anyone working with hazardous materials or carrying out a potentially dangerous experiment? Are there any unusual odors or sounds? Are the hoods working properly? What is going on in the lab next door, on the floor below, or in the building next door? In our workplaces, regular fire drills test our emergency evacuation skills. Knowing alternative routes of exit has saved many individuals caught in building fires.

Police officers, insurance agents, and safety professionals encourage those who drive motorized vehicles to learn how to drive defensively. Be aware of the surroundings. Observe and adjust to road conditions. Watch the movement of other drivers, especially erratic behavior. If another driver is following too closely, pull over and let him pass. Safe automobile travel depends not only on our driving safely but also the actions of other drivers, bicyclists, and pedestrians. Motivate colleagues to wear seat belts, put children in child safety seats, and keep cars in good driving condition by reminding them that the other driver can be the cause of accidents.

Expand this concept of living defensively. As scientists, we learn how to make observations; we should use this skill to protect our personal health and safety. What is happening around us? Are there any unsafe conditions or people acting in an unsafe manner? Do we find ourselves in situations that could result in tragic consequences? Always ask comprehensive "what if . . ." questions.

Crowds may threaten our safety. How quickly can you get out of a crowded room or building in case of fire or other hazard? There have been fires in overcrowded nightclubs where patrons could not escape. Crowded porches have collapsed during summer parties. Beaches filled with people have resulted in extensive transmission of a coronavirus. In these fatal cases, witnesses often sensed the dangerous situation. Would the excitement and fun of an event cause us to disregard our instinctual warning of risk?

READ MORE



Phil Garenstroom, Arlene Garrison, Peter Dorhout, Matt Lasater, and Rein Kirss

The National Jamboree – Scouting and Chemistry Outdoors by Peter Dorhout, ACS Past-President and Arlene Garrison, SCC Chair

Calling all Scouts and Scouters who love chemistry! The National Scout Jamboree is looking for a few good chemistry volunteers. You should know that chemistry, and STEM, activities have long been part of National Jamborees, and 2017 was no exception. From all over the United States, and in some cases, the world, boys and girls, men and women, converged on a beautiful encampment in the mountains of southern West Virginia for 10 days.

It wasn't too rustic, but tent living with fresh air, card games, and occasional bouts of snoring created an environment rich for learning and fellowship. The Jamboree also creates a unique place for teaching skills in activity areas, or enclaves, where young people learn about topics and advance through merit badges. Scouts could easily transition from engineering, forensic, robotics, chemistry, and other related activities in the STEM Quest enclave.

We were part of an exciting team of volunteer chemists, most of whom you may recognize in the team photo, who led Scouts through four one-hour sessions each day, earning each Scout most of the requirements for a Chemistry Merit Badge. Demos added excitement to the STEM Quest area, and the liquid nitrogen "explosions" in barrels of water were very popular.

Each volunteer paid their own travel and expenses, donated up to two weeks of their time, lived in tents, hiked to their encampment each day (or took the staff shuttle), and enjoyed daily fellowship and created life-long friendships. Helping to enlighten the next generation of scientists who share a love of the outdoors, leadership, and chemistry. This supports the ACS Core Value of developing and sharing a passion for chemistry.

The Scout Chemistry merit badge, instituted in 1912 and updated many times since, has a specific set of requirements. These can be readily taught by volunteers in their local areas, in any setting, and every Scout Council is looking for merit badge instructors. For the Jamboree, we taught those requirements outdoors under a large tent.

We managed with limited electricity and no running water, so conservation and green chemistry were themes throughout. No attention was spared on safety: our labs included an eye wash station, fire extinguishers, safety shields, and we provided safety glasses for all participants. If you can be safe in the woods, you can be safe in your labs at school or work.

In true Scouting fashion, the organizers solicited donations from ACS local sections, ACS technical divisions, and individuals, which were used to construct the "labs" and purchase supplies. In addition, several major pieces of instrumentation were loaned for use in this open-air environment to bring reality to the laboratory/classroom experience.

The Jamboree is normally held every four years and is a highlight for Scouts and volunteers. Unfortunately, the 2021 Jamboree has been postponed due to COVID-19. Information on the rescheduled event will be available on https://jamboree.scouting.org/, and registration for volunteer slots is normally 18 months prior to the event. **CALLING ALL CHEMISTS** – I hope to see you there!

Give a Valuable Gift: Share Your Life, Career Experience, and Expertise by the ACS Education Division

During these uncertain times, graduate students and postdocs in the chemical sciences have many questions about how to proceed towards their career and life plans. The mission of the ACS Student and Postdoctoral Scholars Office (SPO) is to provide high-quality career and professional development resources for undergraduate students, graduate students, and postdoctoral scholars in the chemical sciences that enable a well-rounded, inclusive, and satisfied global workforce. Foundational to the office's mission is the core value of Diversity, Inclusiveness, and Respect (DIR). An ACS program that speaks to this mission and foundational values, and brings together individuals of different backgrounds and levels of expertise is **the Graduate & Postdoctoral Chemist Magazine**. To help prepare the next generation of chemical scientists, we are making a special call to members of the senior chemists committee who would be willing to provide mentor support to graduate students and postdocs by being involved with two new initiatives:

Contribute an article to the GPChemist.acs.org about Diversity, Inclusiveness, and Respect — With more than 20,000 subscribers the Graduate & Postdoctoral Chemist magazine focuses on personal and professional development advice for students and postdocs. As a new initiative of the magazine we are focusing on DIR as it relates to the personal stories of chemical scientists. This opportunity is for anyone that loves to write and those that are willing to share their personal DIR related story of struggle of identity, transition, and growth. An honorarium is provided for authors as well as feedback and support from a group of experienced editorial staff. Articles can be anywhere between 1,500-2,000 words and should be focused on life and career advice geared towards inspiring the graduate student and postdoc audience.

Participate in a new pilot career workshop "Designing Your Career Narrative" — This brand-new workshop will cover constructing a personalized plan for one's next life transition (e.g., new career, volunteer opportunity, retirement etc.) based on examining the reoccurring themes of one's life and interests. This is an opportunity for individuals who would like to grow in self-awareness as a mentor as well as for those that would like to explore how to plan for their next

awareness as a mentor as well as for those that would like to explore how to plan for their next life transition. Volunteers would contribute by participating in the pilot workshop and providing a constructive assessment towards shaping it into a valuable career resource for students through mid-career chemists.

Please sign-up to volunteer **here** or contact **GradEd@acs.org** with any questions. We look forward to working with you. Please contact us also if you have another idea of how you would like to contribute to supporting graduate student and postdoc in the chemical sciences in their personal and professional development journey.



Illinois State Fair attendees enjoying the bubble blowing activity and hands-on demonstrations at the Science Tent. Volunteers Hind Abi-akar, Frank Salter, and Richard Boice leading demonstrations.

The ACS at the Illinois State Fair by Milton Levenberg, Member of the Senior Chemists Committee

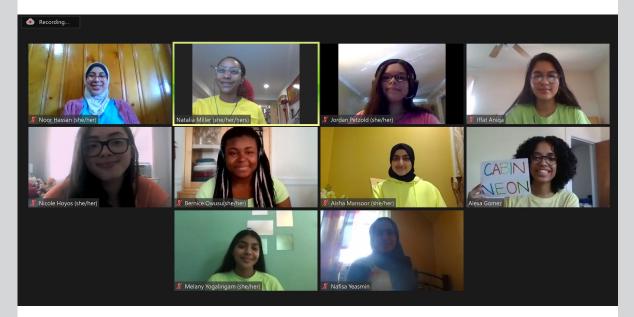
When I was Chair of the Chicago Local Section (LS) of the ACS in 2004, Fran Kravitz (one of our most active members) told me about taking her 10-year old son to the Illinois State Fair. She noted it would be a great venue for an ACS tent. Upon further discussion we decided that because it was the Illinois State Fair, all Illinois Local Sections should be invited to participate. Therefore, I contacted the other 11 Illinois sections and found many that were enthusiastic. We asked Cherlyn Bradley to serve as co-chair with Fran and a meeting was arranged with other LS representatives in Normal, IL.

We were now well on our way with a large, enthusiastic, and talented group. Of course, success is limited without a source of funds. We contacted our employers (Illinois companies), our sections, and our circle of friends for contributions and managed to generate a nest egg large enough to accommodate a budget sufficient for the first year. We next contacted the Fair authorities for permission to host a tent. We mutually decided, as an educational effort, we properly belonged in the "Conservation World", an area managed by the Illinois DNR that represented about 12% of the total area of the Fair.

We rented a tent and gathered tables, fans, and other materials to populate our exhibit. We created an on-line volunteer registration system and set up computers for teacher registrations, surveys, and science quizzes. Frank Salter from the Mark Twain Section, a master at creating amusing and educational demonstrations, produced hours of fun and entertainment. Young guests could play with the overflow of science toys at our "hands-on" tables. We displayed ACS and AAAS literature on lab safety, Project Seed, "Celebrating Chemistry", etc. "Hooray for Chemistry!" bags and rulers and stick-and-cardboard fans, imprinted with our URL, were distributed in abundance. Hand fans are very popular in central Illinois in August.

For the last 16 years, the ACS tent has become a popular mainstay at the Fair often attracting 10,000-20,000 visitors over the ten days of the Fair. Children drag their parents into our tent every year and every year we tweak and refine our offerings to keep them fresh. In 2019, a giant Soma-cube puzzle was featured in front of our tent. Our focus has become communicating with people of all ages and backgrounds to show them that science can be fun and exciting. Groups of students from various Illinois universities and colleges have become welcome volunteers.

Unfortunately, the Fair will not be held this year because of the COVID-19 pandemic. When it reopens, we welcome you to join us and experience the reward of sharing your passion for science with the children of today. Some will become the scientists of tomorrow. Visit our website at: http://acsillinoisstatefair.org to learn more about the ACS tent at the Illinois State Fair and enjoy the many photos posted from previous years.



The Virtual Summer Camp with 300 students participating and organized into 31 "cabins" named after elements of the periodic table.

ACS Project SEED Virtual Summer Camp Benefitted Students in the Face of the Pandemic by Susan Ainsworth, ACS Office of Philanthropy

As soon as high schooler Bernice Owusu completed the ACS Project SEED program last summer, she could hardly wait to apply again for 2020. "Unforgettable and life changing" is how she described that experience, which involved studying the morphology and optics of soot particles in the lab of New Jersey Institute of Technology Associate Professor of Chemistry and Environmental Science Alexei Khalizov.

So, she was initially disappointed when she discovered that it would be impossible for her to return to the lab this summer due to COVID-19. But when she learned that ACS had found a way to continue to offer the program in the face of the pandemic, she eagerly applied.

In lieu of the traditional program--which provides paid, laboratory research experiences and mentoring to economically disadvantaged high school students—ACS hosted a four-week "virtual summer camp." The program aimed to help students understand and communicate chemistry research, while building critical lab safety, professional development and college-readiness skills. Participants received a small stipend and a Chromebook to engage in webinars, virtual panels and writing and research assignments—all led by paid graduate and undergraduate student

and writing and research assignments—all led by paid graduate and undergraduate student mentors as well as ACS volunteers.

The virtual program yielded its own powerful benefits. "Students were exposed to many different scientific fields through inspiring presentations delivered by a diverse group of scientists who looked like them, came from similar socioeconomic backgrounds and overcame challenges to establish successful careers," says Princeton University chemical and biological engineering undergrad Natalia Miller, who served as Bernice's "cabin leader" and mentor. "These presentations gave me a clearer vision of my future and solidified my decision to pursue a career in science," says Bernice, who aspires to earn a PhD in biochemistry.

In the wake of school closures and social distancing measures, Bernice and other SEED participants cherished their virtual interactions with the 300 scientifically curious students from across the US and Puerto Rico who took part in this summer's program. For many, these connections will provide the foundation for building their professional networks.

"My second summer in the Project SEED program—like my first--is an experience that I will always treasure," Bernice says. "Coming from a low-income family and having this big dream of becoming a scientist is kind of scary sometimes. But Project SEED helps you to see that it's possible. Interacting with other scientists -- whether virtually or in person -- gives you that assurance that you can do it. Project SEED helps you to uncover your hidden potential and develop skills that are not just essential for a career in science, but for everything you face for your entire life."

Donate to ACS Project SEED today at www.donate.acs.org/seed! Your gift will support tomorrow's innovators who may address the next major global challenge facing all of us. For information about maximizing the impact of your charitable giving, visit www.acs.org/legacy or contact Mary Bet Dobson, CAP®, at m_dobson@acs.org or 202-872-4094. She can also add you to the mailing list for the Building Chemistry's Future newsletter, which provides free financial and estate planning insights.

Finding Joy and Celebrating the Journey!





Inside Edition was at the 2019 Senior Games in Albuquerque, New Mexico where Meyer became a Triple Medal Winner. Click the image of Meyer to view the video and SEE HIM RUN!!!!

Senior Games and Four Gold Medals

by Gerry Meyer, Member of the Senior Chemists Committee

The "Senior Olympics" are operated by the National Senior Games Association (NSGA.com). In fact, the National Olympics forbid the use of the word "Olympics" except in the case of the Special Olympics, so officially the program for seniors is called the Senior Games. Eligibility for senior status is the same as with the ACS, age 50. For the Senior Games, one's age is his/her birthday in the year of a particular Games. So, for the 2021 Games one is eligible to compete if their 50th birthday is in 2021.

The Senior Games program consists of State Games and a National Game. The former are held every year at a time and place set by the State Senior Games Committee. To learn about these, one can go to the NSGA website for all the necessary information. To participate in the National Games which are held biennially on the odd year, one must qualify at the State level. The top three winners in any event at the State Games are eligible to compete. One may compete in any State Game; however, the first three home state winners are certified.

The Games' program mimics that of the National Olympics and includes track and field, swimming and diving, bicycling, triathlon, golf, tennis, archery, the high jump, discus, pole vault, the triple jump, and a myriad of other single person sports. Then there are team sports which include basketball, pickle ball, relays, shuttlecock, and volleyball. The State Games usually take three days, and the National about a week. Competitors are in five-year age grouping. The initial group is 50-54, and the second 55-59, and so forth. One competes against individuals within five years of his/her age. There are separate events for men and women. Attendance at the State Games varies; the National Games will have 16,000 to 18,000 competitors.

In my case, I have run casually (very casually) for many years and over several decades I've tried to get out every morning. In Wyoming, this meant some really cold outings. I would usually run around the municipal golf course, in the fields, down lanes, anything to avoid concrete. By varying the route, I could accommodate my schedule for the day. An early meeting meant a short, half-hour run. When trying to get into shape for a State or National Games, which I have been doing for more than 30 years, I ran at the University of Wyoming Field House which has measured courses. In the beginning, I did the road races, 5K and 10K, and actually won a 5K race at the National Games in 2010. My most recent National Games appearance was in Albuquerque, NM (my hometown) last year. By then, I wasn't running road races, but dashes. Since my birthday is in 1919, I was placed in the 100 and over age group. I ran the 50M, 100M, 200M, and 400 M races. With exception to the first race, was the only one in my age group. So for the last three races I ran with the youngsters (95-99), but since the races are timed I didn't have to beat runners in the lower age group - I was awarded four gold medals. This was a great reward for those years of getting up each morning and running. And of course, a further reward is that I have managed to hang around in pretty good health for more than 100 years. I celebrated my 101 birthday this year on November 2.

Happy 101 Birthday to our senior chemist Olympian!!!!

Edmond Gerald Meyer is emeritus professor of chemistry and former Dean of the College of Arts and Sciences at the University of Wyoming. He is a past president of the American Institute of Chemists and an active member of the American Chemical Society for 80 years, and served on the ACS National Council for 27 years. He's a recipient of the 2006 Award for Volunteer Service to the American Chemical Society, the 2008 Chemical Pioneer Award, and the American Institute of Chemists Gold Medal in 2018. He was named a Fellow of the American Chemical Society in 2010.



The Grand Canyon – Up Close by Raymond Anderson, Senior Chemists Member and Newsletter Co-Editor

Like many young families, we made an excursion to the Grand Canyon (GC) when our children were young. I never saw the Grand Canyon when I was a child, but I was inspired to do so by Ferde Grofe's Grand Canyon Suite. We started with a trip to the rim to see the sunrise but arrived an hour early because I wasn't aware of a time zone change. We stopped at many view sites and made a few short hikes, but this only increased my desire to see the Grand Canyon in more depth.

A white-water float trip down the Colorado River had long been something I wanted to do. Ordinarily you have to make reservations at least a year in advance. After my retirement and during the economic collapse in 2009 when many canceled their trips, my oldest daughter and I took a 10-day commercial trip. We had to bring only our personal needs. They provided everything else: food, cooking, cleanup, tents (if wanted), sleeping bags, and transportation back to the starting point. There were 16 people, including three guides on our two-section raft. The trip began slightly below Glen Canyon Dam and ended after 187 miles on the water at the takeout point below the Bar Ten Ranch. We exited the canyon floor by helicopter.

There were hikes along the way to archaeological, scenic, historical sites, points where smaller rivers joined the Colorado and water falls where you could rinse off in very cold water. At each stop or hike the guides provided knowledge and stories on geology, history, archaeology, tales of early exploration and information on the local flora and fauna. They were trained in Outdoor Emergency Care and, importantly, very skillful at maneuvering over and through many unnamed rapids and over 20 named rapids (according to my t-shirt).*

The evenings were particularly enjoyable; gourmet food with wine (bring your own) and there was always dessert (even Bananas Foster half way through the trip). The group was very congenial and became very close during the trip. Afterward, we shared a few e-mails and pictures, but these friendships died off. The memories live on.

A few years later, my brother-in-law, his grandson, and I hiked to the bottom, spent a night at Phantom Ranch, and hiked back up the next day. I should have done it when I was at least 10 years younger. I thought I was in pretty good shape, but learned otherwise; 107 degree heat was a significant factor. Then my wife and I visited the North Rim, which is more remote and not visited nearly as much as the South Rim. The scenery is great although not nearly as extensive, but we saw much more wildlife. I strongly recommend any or all of these adventures if you have the opportunity.

*For a humorous description of a Colorado float trip see YouTube, Jeanne Robertson, "Don't go rafting without a Baptist in the boat".

Life Before OSHA

by Allen A. Denio, Member of the Delaware Local Section

On December 29, 1970, President Richard M. Nixon signed the *Occupational Safety and Health Act (OSHA)*, thus establishing the Occupational Safety and Health Administration within the Department of Labor. The purpose of OSHA was to improve the health and safety of men and women in every workplace in the United States including, as described below, the textile mills of Lowell, Massachusetts, and the laboratories of academia. The scope of the legislation was extremely broad, but it took time to build the organization and establish adequate safety standards. Nevertheless, life for working men and women – and life for chemists – became much safer after 1970.

I grew up in Lowell, MA, graduated from high school in 1952, and spent the next four summers working in the local textile mills. Lowell and its textile industry developed over the years at the confluence of the Merrimack and Concord Rivers – sources of water for power and processing, and convenient for waste disposal.

Working conditions before OSHA were primitive and unsafe. Looms, spinning machines and other equipment on the factory floors were driven by four-inch-wide leather belts connected to large ceiling-mounted motors. There were no protective guards and a ruptured belt had potentially serious consequences. Humidity levels on the factory floors were extremely high in order to minimize static electricity problems, air temperatures were high due to the heat given off by the machinery, and the air contained high levels of cotton fibers. Because of dehydration issues, employers provided free salt tablets to workers. At the end of a shift, I would comb my hair to remove clouds of lint, but the stuff in my lungs is still there.

In September 1952, I enrolled at the Lowell Technological Institute as a textile chemistry major. This was a rigorous program led by a demanding faculty, and lab safety was not a priority. In the Qualitative Analysis Lab, for example, a hydrogen sulfide generator was set up in a rudimentary hood to supply gas for four hours. No one was concerned about "hood face velocity", and student headaches were widespread.

After two summers spent in the Textile Fibers Department at Dupont in 1962, I joined the Chemistry Department at the University of Wisconsin- Eau Claire, where I became Chair of the Safety Committee. I pushed immediately for eye protection in the labs and proposed that organic solvents in the stockroom be stored in stainless steel, rather than in 2.5 liter glass containers. My proposal went nowhere because of the costs involved. Eventually, however, the university

developed a plan for the disposal of all waste solvents on a monthly basis. Fortunately, we never had a serious lab accident in the Chemistry Department.

I later joined the ACS Division of Chemical Health and Safety, which has been over the years a great source of information and updates. Life for chemists after 1970 gradually became so much safer for all!



IN MEMORY OF OUR LOVED ONES

Chemical & Engineering News would like to honor chemists lost to the coronavirus in an upcoming special issue focused on the COVID-19 pandemic. If you would like us to include a friend, colleague, or loved one in our memorial, you can tell us about them here: https://bit.ly/chemistslosttocovid.

EDITOR'S NOTE

As the Editor of this Newsletter, I have a wonderful opportunity to work with authors. I welcome articles from anyone who reads this Newsletter, and is interested in writing an article for it, or even has an idea about a possible article. Please contact me at **Seniorchemists@acs.org**, or at **Ighartshorn@stthomas.edu**.

Lynn G Hartshorn, SCC Newsletter Editor

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