



Newsletter for Senior Chemists

MARCH 2019

A NEW SENIOR CHEMISTS CHAIR, GLASSBLOWING, PHOTOGRAPHY, CHEMICAL ANGELS & CROSSWORD WINNERS - SPRING IS HERE!

A Special Welcome from the New Senior Chemists Committee Chair



Dr. Arlene Garrison holds the position of Vice President of University Partnerships at Oak Ridge Associated Universities (ORAU). Dr. Garrison previously served as Program Director at the National Science Foundation and as Associate Vice President for Research at the University of Tennessee. She's a member of the American Chemical Society, where she was named a Fellow in 2014, is an Alternate Councilor for the

ACS East Tennessee Section, immediate past-chair of the ACS Business Development and Management Division, and the new chair of the ACS Senior Chemists Committee. She received her doctorate in analytical chemistry and a bachelor's degree in electrical engineering from the University of Tennessee. She serves on numerous non-profit boards. In recognition of her volunteer work in science outreach to pre-college students, Garrison was one of the 10,000 Olympic Torch Bearers as the torch moved to the 1996 Olympic Games in Atlanta.

Welcome to the Spring 2019 issue of the Senior Chemists Newsletter. You are in for a treat, as always! Please let us know what articles you enjoy. If you have ideas for articles, please reach out to me or our editor, Lynn Hartshorn at seniorchemists@acs.org. Feel free to forward this newsletter, and encourage your colleagues who are ACS members over age 50 to open and read the newsletter. Our "open rate" is exceptional.

It is my privilege to serve as Chair of this excellent group of volunteers, and I want to catch you up on all the activities

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The Senior Chemists Committee Mini-Grant Program 2019 Application Deadline-May 31

By Roger Bartholomew
Member of the SCC and Chair of the SCC Local
Section Mini-Grant Subcommittee



You may not be familiar with the SCC Mini-Grant Program, because the annual announcement is only sent to local section officers. These Mini-Grants are awarded to local sections that wish to sponsor an event or activity that will increase the

they have been doing and what's being planned for the ACS 2019 Spring National Meeting in Orlando, FL.

The Senior Chemists Committee (SCC) held a strategic planning retreat on August 22-23, 2018. **SCC's updated Vision is to "Improve lives using the knowledge and experience of senior chemists" and its new Mission is to "Address community needs and ambitions by utilizing senior chemists' knowledge and experience."** SCC will continue its goal to (1) increase the number of senior chemist groups in Local Sections, and has added two new goals: (2) develop avenues to expand communications and promotions to enhance awareness of senior chemist activities, and (3) engage with community groups that benefit from senior chemists' expertise.

The Newsletter for Senior Chemists received its highest level of viewership (11,854) for its November 2018 issue – A Special 100th Anniversary, a Gold Medal Win, Life After Retirement, and a Chain Reaction for Peace.

We've seen an increase in Local Section senior chemists groups over the past two years as a result of the SCC Mini-Grant Program. We will continue the program this year, and SCC members will be asked to visit their Local Sections to share ways to engage more senior chemists at the local and regional levels. Programming is being planned for many of the regional meetings. If you would like someone to visit your local section, please let me know.

SCC has planned a number of events for the Orlando meeting. SCC is co-sponsoring a symposium on Monday, April 1 with the Small Chemical Businesses Division titled, **"Senior Chemists Career Stories: Chemistry for New Frontiers," that will take place at the Hilton Orlando, Orlando V room from 8:00-10:05 a.m.**

After a successful pilot in Boston, SCC is partnering again with the Younger Chemists Committee to host an ice cream social event, **"Networking with Chemistry Professionals" also on Monday, April 1 from 3:00-4:30 p.m. at the Orange County Convention Center, West Hall F2 room.** All undergraduates and younger chemists are invited to attend. If you would like to participate as one of our chemistry professionals, please send an email to seniorchemists@acs.org. We welcome your participation!



SCC welcomes Dr. Peter Hancock as the keynote speaker for the Senior Chemists Breakfast that will be held during the Orlando meeting on Tuesday, April 2 from 7:30-9:30 a.m. at the Hilton Orlando Hotel, Orlando III. Dr. Hancock is Provost Distinguished Research Professor in the Department of Psychology and the Institute for Simulation and Training at the University of Central Florida (UCF). His talk will focus on "Sleights of Mind: Mysteries and

engagement of senior members and encourage innovative activities. It is anticipated that by encouraging such programs, local sections will form senior chemists' committees, thereby maintaining active senior chemists in their programming. At the present time, there are 66 local sections that have reported such committees. In a recent SCC Strategic Planning meeting, one of the goals was to continue to increase the number of senior chemists groups within local sections.

As mentioned above, the announcement of the Mini-Grant program is sent to local section officers. In the past it was announced in the spring following the National Meeting with a deadline of July for applications. To allow an opportunity for more sections to apply, the announcement was made earlier in 2019, with a deadline for May 31, 2019.

The Mini-Grant details:

1. Grants award of up to a maximum of \$500 are available for a local section that desires to host an event that benefits local section senior member involvement.
2. A grant application must be submitted by the date stated in the application form (May 31, 2019). Grant funds are limited and will be awarded on criteria developed by the SCC Mini-Grant subcommittee.
3. It is requested that a summary report be submitted within 30 days of the conclusion of the event. In the absence of such a report the section will be ineligible to apply for future grants.

In past years, grants have been made for events such as: special recognition luncheons and dinners for 50-, 60- and 70- year members, seniors mentoring activities for undergraduates, joint events with younger chemists, or events to help local students (e.g., science fairs, STEM projects). Social or educational activities such as tours of local science museums, or local industries (labs, wineries, breweries), or to ball games have also been approved. Please feel free to come up with other ideas to ensure senior chemists in your section remain involved.

An example of a section that was awarded a Mini-Grant in 2017 was the Central Texas Section. The Central Texas Centennial Celebration included a poster session, banquet and presentations by senior chemists, guests from ACS Governance, and the CEO of Gordon Conferences. Section history and the influence of notable chemists were featured. A lively poster session highlighted research, chemistry history, student organizations, and section activities. Students

Myths of Cognitive Deception." This is a ticketed event. If you would like to attend, please register via the ACS meeting registration link.

Once again, we will have our **"Senior Chemists" booth at the ACS Exposition in the Orlando Convention Center (#1031)**. Please come over to visit us during the Welcome Reception on Sunday, March 31 at 6:00 p.m. and receive information on how you can get involved, share any thoughts you may have with us, and enjoy a tasty treat. You may also visit the booth Monday-Tuesday (April 1-2) from 8:00 a.m. to 5:00 p.m.

The SCC is excited to celebrate the **International Year of the Periodic Table**. For 2019, we will be including articles with an international focus, such as the one in this issue about the Peace Corps.

Thanks for reading and for your input!

"COME GET THE SCOOP!"

NETWORKING WITH CHEMISTRY PROFESSIONALS

**Sponsored by the American Chemical Society
Senior Chemists & Younger Chemists Committees
ACS 2019 National Meeting in Orlando, FL**



Professionals in industry, academia, government, small businesses, and non-profit, please join us. Enjoy your favorite scoop of ice cream and share your expertise and experiences with undergraduates and younger chemists!

If you would like to participate, please send an email to seniorchemists@acs.org.

**Monday, April 1, 2019
Orange County Convention Center
West Hall F2
3:00-4:30 p.m.**

We hope to see you in Orlando!

from Texas State University Journalism produced a professional quality film. Their Mini-Grant partially funded this event which was awarded a SCC Chemluminary Award for "Most Innovative Activity in a Local Section for Senior Chemists."

In 2017, SCC awarded Mini-Grants to 18 sections, while in 2018 support was given to 21 sections (not all were fully funded because of budget limitations). As mentioned above, each application is evaluated by the Local Sections Mini-Grant subcommittee. Priority is given to applications from sections that have not had a grant in the past year.

Because the notice about the Mini-Grants is primarily sent to local section officers, it might not be disseminated to all senior chemists in the section who wish to find a way to stay involved. I, therefore, challenge the reader to consider ways to stay involved. Talk to your fellow senior chemists that you are still in contact with, and think of an event that could be supported by an SCC Mini-Grant. Finally, get in touch with your section's chair, or the chair of a Senior Chemists group that might exist in your section, and seek their support in making your suggestion come to life. Good luck!

For additional information, please send an email to seniorchemists@acs.org.

CONGRATULATIONS!!! Lydia Hines and John Kenna SCC Crossword Winners

Thanks to everyone who read the November 2018 issue and played the "Senior Chemists & ACS" crossword puzzle. Lydia Hines (Kalamazoo Section) and John Kenna (Philadelphia Section) both had all the winning answers and will receive a special gift prize from the Senior Chemists Committee. When you read the newsletter and see the games,
PLAY AND WIN!

The following articles are a part of our on-going series about the many and varied activities of (mostly, but not all) retired senior chemists. We are always glad to hear from senior chemists. Tell us about some of the activities you do or great places to visit. Please send your article, or a suggestion for an article, to the Senior Chemists Committee [INBOX ✉ seniorchemists@acs.org](mailto:seniorchemists@acs.org) (Editor)

Glassblowing in Retirement by David Reingold

David Rheingold earned a chemistry degree from Dartmouth, and did graduate work in organic chemistry at the University of Oregon. He then taught at undergraduate colleges for 34 years. A 47-year member of ACS, he is Treasurer of the Portland section. David served on the Council on Undergraduate Research (CUR), where he chaired the chemistry division, the finance committee, and in 2001, was CUR's Volunteer of the Year. David and his wife have retired to Portland, OR. In addition to glassblowing, his activities include golf, travel, and serving as President of the Renewable Energy Scholarship Foundation (www.resf-pnw.org). He can be contacted at reingold@juniata.edu.



During a 34-year career as a professor at Haverford, Middlebury, Lewis & Clark, and Juniata Colleges, I spent most years living within walking distance of school. I worked 60 to 80-hour weeks, returning after dinner and most weekend days. When I retired, I moved to Portland, OR, with no office or lab. I threw away my samples and data, and closed down my lab and that chapter of my life.

What's a person to do in a new city? Fortunately, I had learned to blow glass – not well, but well enough to repair the trap on the vacuum line when it broke. I had saved money for my department, and taught my students how to make simple repairs themselves. I thought I could leverage this in Portland.

Glassblowing is a lost art. Chemistry departments of any size used to have their own glassblowers to repair equipment, and to create custom-made glassware. Many chemists could do simple glassblowing, but used professionals for more complicated work. Perhaps now less than 10% of chemistry graduate schools have a resident glassblower.

These days, it is a rare chemist who can blow glass. Glassware is still expensive; chemists who can make minor repairs can save money for their employers. Other things being equal, this could make a difference on a job application.

My connections were with undergraduate colleges, so I began my search there, contacting those I knew in Portland. I asked for a small room to convert into a glass shop, but colleges declined. My wife panicked (I had threatened to build a shop in our garage if I could not find one). In desperation, I contacted the graduate chemistry department at Portland State University, asking for a small, unused room. Not only did they have an unused room— but one that used to be the glass shop. Underneath the clutter I found torches and other equipment, including a fair amount of glass stock.

Since the department did not know me, or whether their students would be interested in glassblowing, we agreed that I would have access to the shop to make it functional, and teach a section of glassblowing to see how it went, with no money changing hands. I was given a courtesy appointment in the department and a desk in a small room to call an office. I integrated myself into the department in other ways, attending some group meetings and going to their seminars.

As it turned out, the students loved blowing glass. One section turned into another, and another, and after a couple of years they found enough money to promote me to Adjunct Professor and pay me a nominal sum for my teaching. I am still paid less than 5% of my professor salary, but I get to teach four sections a year of glassblowing and have free access to the shop to play whenever I like. Life is good!

Photography as a Hobby by Herbert Golinkin

Herbert Golinkin did his undergraduate work in chemistry at Johns Hopkins University and graduate work in physical organic chemistry at the University of Alberta at Calgary. This was followed by a postdoctoral fellowship at the National Research Council of Canada. Much of his career was spent working for Amoco Chemical Corporation on polymers and lubricants, and materials at ITW Technological Center. He also taught at the University of Minnesota and at two local colleges in the Chicago area. He is now retired and one of his hobbies is photography, as described in the article below. He also enjoys woodworking and has dabbled in painting. He has been an ACS member for 58 years, and is a member of the Chicago Section.

We all have taken pictures with our cameras on vacations and other occasions. Today, we don't even need a camera since we all carry smart phones which take good quality pictures. In fact, we probably take more pictures with these devices than we make phone calls. But what do we do with these pictures?

A little more than a year ago, when on an outing with my synagogue's men's club, I was invited to join a photography club. This club meets twice a month from September through May. The purpose of the club is for the members to improve their techniques, and take images that you'd be proud to display on the walls of your home.



So, let's start at the beginning. Photography as art is the act of producing a picture with light, whereas a painter does so with pigments and oils. One main, but perhaps unrecognized difference among the practitioners, is that the painter adds to the image as he/she edits the picture, whereas the photographer tends to subtract from the image so as to focus the eye of the viewer on the intended story. With digital photography there are many software editing programs that allow the photographer to crop, remove unwanted details, soften or sharpen an image, and enhance or lighten the colors. In short, the original image can be made into a work of art.

The photography club consists of members of all levels of expertise from novices to professionals in which everyone has the opportunity to learn and to improve. The format of a meeting consists of talks on various aspects of shooting pictures, editing images, and equipment. In addition, several contests are held in which members' prints and digital images are judged based upon a set of criteria. In these competitions we do not compete with one other, but with the quality of previous images we each submitted in the effort to improve.

The photography club I joined, Photogenesis Club, is one of 40 in the metropolitan Chicago area under the umbrella of the Chicago Area Camera Club Association (CACCA). Prints and digital images that are awarded honorable mention or award level in the club's competition are entered in the CACCA competitions held during its monthly meetings. The club's categories are small color (8.5 x 11 in), large color (13 x 19 in), and small black and white. These categories extend to the CACCA competitions, but others such as nature, landscape, and portrait are also present. Subjects range from a simple picture to something totally abstract. It's been observed that those including subjects of feathers (birds) or fur (animals) have the best chance of high marks.

So, what does it take to become a member of a camera club? In this area it requires finding where and when the club meets, showing up to a meeting or two, and, if your interest is piqued, paying the annual dues of \$15.00 (\$20.00 for the first year). If you have any interest in photography, whether taking pictures of your grandchildren for the family album, preparing photographic memories of vacations, or for any other reason, contact your local park district or library, or search online, and learn when and where your local camera club meets. You'll make new friends, learn a useful skill, and have a pleasant evening or afternoon keeping your mind active.

Retirement—in the Peace Corps? Gerald Murphy



A version of this article, written by Judy Wakefield, originally appeared in the "Andover Townsman" (MA) and is published here with the permission of its editor, Bill Kirk.

Gerald Murphy did his undergraduate work in Chemistry at UMass/Lowell and graduate work in Polymer Science at UMass/Lowell. Most of his career was spent at Raytheon in Andover (Mass), working in Analytical Chemistry in support of Materials Engineering. He has been an ACS member for 46 years and is a member of the Northeast section.

For two years, the Murphys put their own spin on defining retirement. Apparently, a growing number of retirees are doing just that by enrolling in national service programs - most notably the Peace Corps, according to its website. The programs may have been designed primarily for young people originally, but now some of those '60s-era youth are looking for another chance to give back or to have an adventure. "The Peace Corps was always something I wanted to do. I wanted to join at 20, I even filled out the paperwork," Mary Murphy said, "but I was too timid."

When their son, Joshua Patrick Murphy, served in the Peace Corps after his college graduation, Mary found herself rethinking about what she had put off some 40 years earlier. Gerry thought it was a good idea to join the Peace Corps, too. They joined on March 1, 2010 and were stationed in Morocco from March 3, 2010 to May 1, 2012. They lived in a village called Ait Diba. In Arabic, it means "place of the she wolf," Gerry said. There was lots of mud, donkeys, wandering goats, camels, a homemade-bread-based diet, and the Quran in the Murphy's new home. Morocco is 99 percent Muslim and the language is Arabic. A few educated village friends spoke English but overall, communication was tough because the Murphys do not speak Arabic.

But, a commitment is a commitment and the Murphys never gave up. They faithfully attended the language classes, politely sat on the floor for dinner and ate with their hands alongside their host family. They enjoyed being the much-respected older couple in the village. Eventually, they got their own house on a hill in the village, with running water and electricity. "I even grew my gray beard," said the now clean-shaven Gerry. "The people truly respect elders in that culture."

Gerry is a chemist who worked at Raytheon in Andover for 35 years, while Mary is a nurse who worked for 25 years in the psychiatric and Alzheimer's departments at the Veterans Administration in Bedford. They were involved with the village health clinic. Gerry helped develop a water-filtration program while Mary organized blood-pressure clinics and worked to improve the overall health consciousness of villagers with hand-washing and tooth-brushing awareness programs.

The Murphys also received a Peace Corps grant to buy 300 olive trees for the village. Residents can sell olive oil for much-needed cash so the trees' arrival was big news in the village. Gerry helped build a school while Mary relentlessly pursued a village woman whose young son had a cleft lip. Doctors from Operation Smile correct cleft lips and were due to visit a nearby village. That mom did bring her son for surgery and his lip was fixed. "That is something I will never forget...that mom was so grateful," Mary said. She said she learned a lot and helped many village residents learn about improving their health. She dropped 25 pounds, was a vegetarian for those two years in Morocco and has seen enough sheep, camels, and goats to last a lifetime.

Meanwhile, Gerry will never forget making bread every morning with flour, yeast, and salt. He'll always remember the new school in the village and the thrill of all those olive trees arriving. It's back to a more conventional retirement for these longtime High Plain Road residents. Gerry, 65, and Mary, 68, swim at the local YMCA and enjoy kayaking together. Sounds like a bit of well-deserved normalcy for this adventurous retired couple.

What Comes Next: When You Lose Your "Job for Life"

John Lowe, JL3Pharma LLC

Dr. John A Lowe III did his undergraduate work in Chemistry and History at Williams College and his graduate work in Organic Synthesis at UCLA. Most of his career was spent in the pharmaceutical industry, working for Pfizer. After he was laid off, together with many of his colleagues, he transitioned to consulting. The following describes this transition, and how it worked for him. John Lowe lives in Stonington, CT, and is a member of the MEDI section of ACS.

The Transition to a Consulting Business

The experience of losing my "job for life" and the transition to my own consulting business, are shared in the following paragraphs. I hope my insight will be useful to other chemists who have undergone, or who may undergo, similar events.

Despite warning signs about the lack of job security in the pharmaceutical industry beginning in the early 2000s, I was woefully unprepared to start life over after losing my job. The pharmaceutical industry had been my life for nearly 30 years. I had a great job and worked with great colleagues. Chemistry is such an important part of my life that it was difficult to face not having the challenge of designing and synthesizing new compounds, the excitement of a new discovery, and the hope that this discovery would someday help millions of patients.

After the first round of layoffs at my company, the possibility that I would be next began to sink in. In 2008, there were hints from management that I would be included in the next round. Fortunately, these warning signs gave me valuable time to prepare, and I concluded it would be best for me to transition to consulting. I began discussing this option with colleagues who had already retired and were consulting for the chemical and pharmaceutical industry. Their advice was even more valuable than I had anticipated.

The advice included detailing the process of setting up an LLC (Limited Liability Company) for my new consulting business and some of the legal and financial considerations (e.g., keeping my business and personal income separate). They noted the importance of my network of colleagues as potential clients for my new consulting business. This lesson was driven home when a colleague in my network asked if I would be available as a consultant in case I was laid off; the colleague followed up on that promise six months later when I was finally let go.



Even so, getting my business started was slow. Once I had set up my LLC and organized my records for running a business, I was concerned about having enough to keep busy and sustain my consulting for the long run. Fortunately, a few months after getting started, a new client arrived that alleviated that concern. While the first client had me serve on a scientific advisory board that met every few months, the second client asked me to design their entire medicinal chemistry program. This required careful monitoring of all the biological testing data as it became available and all the synthetic challenges faced by the chemistry contract research organization (CRO[AL1]). I was able to spend as much time as I needed to analyze the program direction and design new compounds to push the program forward, much like I had done in my previous career. I finally had the opportunity to recapture the reward of seeing my ideas driving a research program.

Creating a Sustainable Consulting Business

I had initiated my consulting business, but now I needed to make it sustainable. Benefits began to occur that I had not expected. The first was a request from a colleague in my network for a chemistry due diligence evaluation of a licensing opportunity from a small company's drug discovery program. I have done many of these over the succeeding years, and doing this has allowed me to see cutting edge developments in drug discovery and meet the scientists involved in the work.

Through a connection in my network, I had a chance to work with an academic start-up company, offering a view into the world of academic research as it emerges into drug discovery. This then led to an opportunity to review grant applications for a major research foundation, another chance to see academic research interfacing the drug discovery world. Consulting for a company in an area of cutting-edge biology gave me another perspective on this process.

Another bonus of my new business that I had not anticipated was the expansion of my network of colleagues. Meeting new scientists and seeing new projects was an enormous benefit in offering new opportunities. The challenges of new projects in areas I had not worked in before was a great tonic to avoid the risk of my expertise growing stale. With the various opportunities that continue to come along, these challenges have relieved my concerns about the sustainability of my business and my ability to stay engaged in my chosen profession. So, while there is no longer a "job for life", there are many opportunities to play a role in the drug discovery process aimed at improving the health and welfare of society.

Looking for an Opportunity to Help Early Stage Chemical Businesses – Grow and Create Jobs for Chemists by Dr. Sidney White



Dr. Sidney White did his undergraduate work at Louisiana State University and his graduate work at Texas Christian University, where he obtained a PhD in Inorganic Chemistry. Sid worked for seven years in the specialty chemical division of Cincinnati Milacron and more than 30 years in the medical device company Essilor International, the world leader in eyewear. After retirement Sid volunteered in the ACS at the local and national levels. In 2012, Sid co-founded the Chemical Angel Network, the only Nation-wide angel investing network for early stage chemical businesses.

Angel investing is the critical source of startup company funding between friends, family and fools, and Venture Capital. An example of an angel investing network is the Chemical Angel Network (CAN), the only Nation-wide angel investing network for early stage chemical businesses (i.e., businesses with a significant chemistry component). The Chemical Angel Network offers chemists, chemical engineers and other chemical professionals a unique opportunity to participate in the growth of companies in the chemical and chemistry enabled industries. In addition to possibly significant financial upside opportunities, the Chemical Angel Network encompasses several unique elements. As well as financial capital, the network draws upon the members' special experiences and knowledge base to provide comprehensive due diligence, mentoring, contacts, and general technical expertise. Startups can apply to the Chemical Angel Network at NO COST.

There are several benefits for being a member of the Chemical Angel Network:

- Opportunity to invest in chemical businesses with potential for a high return on investment capital
- Ability to make investment decisions with input from the network's members and shared due diligence
- Expertise of network members to help portfolio companies succeed
- Option to review private equity deals anonymously
- Free membership to the Angel Capital Association
- CAN Accredited Investor membership is still free

The Chemical Angel Network has presented a session at the last 12 ACS National Meetings where early stage chemical businesses could present their companies to investors. The sessions also included training on Intellectual Property, Due Diligence, Incubator Support, Corporate Venture Fund Manager's presentations, updates from Portfolio Companies, etc.

For more information on the Chemical Angel Network, please visit our website www.chemicalangels.com or contact Sid White at sid.white@chemicalangels.com. We invite you join this effort by applying at NO COST using the link on the Members webpage on our website. Note that currently, we have 34 chemists and five chemical engineers investing. Although other angel networks or funds are normally regional and not chemical sector focused, they can also offer opportunities.

A TALE OF TWO STUDENTS by Al Denio

Al Denio did his BS and MS degrees at what is now University of Massachusetts-Lowell. After a year at Dupont, he moved to the University of New Hampshire where he completed his PhD in Physical Chemistry in 1962. He returned to Dupont in Wilmington, DE for two more years before joining the faculty at what is now the University of Wisconsin (UW)-Eau Claire. He has been a Visiting Professor at UW-Madison, UW-Milwaukee, and the University of Delaware. He moved to Delaware in 1998 where he became active in the Delaware Section, serving two terms as a Councilor. He was a founding member of the Senior Chemists Committee and is a 60-year member of ACS. He considers beer to be an Ideal Solution.

I left my job as a Research Chemist at Dupont in Wilmington, DE in August 1964 and moved to Eau Claire, Wisconsin where I became an Assistant Professor at what is now the University of Wisconsin-Eau Claire. As I ponder my academic career, I recall many fine students who pursued careers in chemistry, medicine, dentistry, pharmacy, plus other fields. It was a joy to help in their education.

George was starting his junior year as a chemistry major. He lived two blocks away, an easy walk to campus. I soon learned that this friendly, quiet student was one of our best.

During my first year, I prepared and submitted a modest research proposal for funding. This included money for a student assistant for 1965-66. When the proposal was funded, I was fortunate to hire George for his senior year. It was impressive to see him function in the lab with minimum supervision.

He took the Graduate Record Exam and did well. He applied to four grad schools – Harvard, MIT, Cal Tech, and the University of California (UC)-Berkeley. I proposed that he also apply to the University of Wisconsin as a backup option. George ignored my advice; he seemed to want to escape the Midwest.

All four of his preferred grad schools made him an offer. He asked me which I would recommend. I assured him that all four were excellent. The next day he announced Cal Tech as his choice. Very good I said, but why? He had enjoyed watching a TV show called "The Man from U.N.C.L.E." and they had filmed some scenes in labs at Cal Tech.

George graduated in June 1966 with both chemistry and math majors. He barely missed graduating with a GPA of 4.0. Apparently, he earned an A- in a required physical education course; perhaps he did not run fast enough? As a parting gift to my wife and I, George taught us both to water ski on a nearby lake one afternoon. It was clear that teaching was one of his many talents.

Before leaving Eau Claire for Pasadena, George's mother insisted that he remove the chemistry lab and large collection of rocks and minerals from their basement. It seems that he was fascinated by these pieces of the earth's crust that he had collected since childhood. Most of his collection was donated to the Geology Department. When George reached Pasadena, the air pollution was so bad that it seriously bothered his eyes. Luckily that problem has been solved.

A young Assistant Professor had just arrived at Cal Tech and was looking for bright students for his new research group. Harry Gray convinced George to sign on, a move that served both well. He completed his PhD in Inorganic Chemistry in 1971 and never left. George became a Professor of Mineralogy in the Division of Geological and Planetary Sciences. In 2004, he won the Feynman Prize for Teaching Excellence. He now has a mineral named after him and is recognized as a world authority of gemstones. I knew my former student would do well in science. He continues to amaze me!

About the time George headed west, a new student arrived from the tiny town of Lake Tomahawk in northern Wisconsin. Rich arrived on campus in September of 1966. He enjoyed the bright lights of this campus town of about 25,000.

He decided to study chemistry – when he had the time. He tried out for the football team but the coach suggested he return after gaining 100 pounds. As a fun loving student, he soon joined a rock band to use his musical talent. At one point he changed to an English major because he had a crush on one. He eventually returned to chemistry. Rich enrolled in my Physical Chemistry course during his junior year. He was not my most diligent student. He slept through my lecture on the Carnot Cycle, perhaps dreaming of his “Harley.” He survived the course, and then enrolled in the second semester. At this point, he seemed even more distracted and withdrew at mid-semester. In September 1969, I left for a year as a Visiting Professor at the University of Wisconsin-Madison. Meanwhile, Rich re-enrolled in the second semester of Physical Chemistry with Professor St. Louis. He also applied to the Chemistry Department at UW-Madison for graduate work in Chemistry.

During the spring semester of 1970, the late Professor Ed Larsen came to my office to explain that my former student Rich did not have a high enough GPA to meet their minimum standard. I explained that Rich was very bright, but was distracted by his variety of interests. At the time he was a bartender working until 1:00 a.m.

In late May of that year, Professor Larsen returned to explain that one of their Teaching Assistants had become quite ill and had to cancel his appointment. Suddenly they needed to find a replacement. I assured him that Rich was worth the risk and proposed that they take him in for the fall semester on a probationary basis. Rich soon turned out to be a fine Teaching Assistant. He joined the Research Group of Professor Claude Woods, a Physical Chemist well known in the field of spectroscopy. I am convinced that Professor Woods deserves credit for getting Rich to focus on chemistry.

After finishing his doctorate, Rich did a Post-doc in Colorado at the National Bureau of Standards. He moved to UC-Berkeley in 1979 where he quickly earned tenure and was promoted to Professor. He soon gained respect in the field of spectroscopy and did impressive work on the structure of water clusters. Rich is the Class of 1932 Endowed Professor and has received more than 70 honors and awards from ten different countries. He is coauthor of more than 400 publications. His great success continues to impress me.

One could easily predict great success for George. However, Rich is an example of a “Late Bloomer.” I was not sure if he would continue in chemistry or follow his musical talents. Luckily chemistry won. George is Professor George R. Rossman while Rich is Professor Richard J. Saykally, both amazing people.

The Continuing Education Programs for Seniors

Many seniors enjoy continuing their education after retirement, and one way to do this is to take classes at local universities and colleges that offer classes for seniors and retirees, usually at low cost, or even free of charge. These are often no-credit classes, and many topics are offered, depending on the institution. If you are interested, contact your local college or university and ask about classes. There may be opportunities for teaching classes, as well as learning.

The Osher Foundation has helped to fund more than 100 Osher Lifelong Learning Institutes (OLLI) in regions across the United States. Consult their website www.osherfoundation.org for more details and to see if there is one near you.

In previous newsletters we have published an article about the OLLI at Duke University, where

College of DuPage, Glen Ellyn, IL

This is a community college which has a full calendar of non-credit continuing education classes known as Adult Enrichment & Lifelong Learning. These are designed for the 50 and over crowd. A reduced senior rate applies for participants 55 and older. There also is a Plus 50 program for people looking to return to school or advance in their career. Some examples are:

- Sakura Tales: Stories from the Land of the Rising Sun. 1.5 hrs \$29/\$19
- History of Santa Claus 1.5 hrs \$29/\$19
- El Greco’s Assumption of the Virgin. 4 hrs, \$55
- Popular Songwriting. Two 3 hr sessions, \$99
- Learn to Play the Ukelele. 3 hrs, \$135
- Drawing for Beginners. Six 2 hr sessions, \$185

The college is also looking for people who wish to teach a class in the Lifelong Learning program.

seniors can both take classes, and also teach classes. The website is

<https://learnmore.duke.edu/olli>

In the November 2018 SCC Newsletter, an article by Dwaine Eubanks highlighted the continuing education program at Clemson University, called the Clemson University Emeritus College. The web site is www.clemson.edu/emeruscollege

Obviously if seniors are going to attend classes (unless they are on-line) the program needs to be local. We therefore decided to look at more of these kinds of programs in various regions. This series will be continued in future Newsletters, and if you know of such a program in your area, please write a few notes about it, give its web site, and send the information to seniorchemists@acs.org

In this issue, we are briefly discussing programs in three regions. Websites are given so you can get more information.

[Continuing Education Programs in the Chicago area](#)

(Collected by Herb Golinkin, SCC)

There are many colleges/universities in the Chicago area, and quite a few in the vicinity of Naperville where I live. Here is some information on three of these institutions that offer some continuing education classes. In general, these are not exclusive to seniors.

Midwestern University, Downers Grove, IL
This offers a Mini Medical School for anyone. This is a four-session program held on Monday evenings. Tuition is \$25.00, and parking is free. The 2018 program included "Forensic Anthropology and Archaeology", "Physical Therapy: Device Use and the Impact on Posture; Vestibular Dysfunction", and two TBA's.

[Benedictine University](#), Lisle, IL

This institution offers some arts and liberal arts classes to the general population of community retirees for a small fee. It does not include any science courses.

A Continuing Education Program in Portland (information collected by Warren Ford, SCC)

[Portland State University](#), PSU, has a program for any Oregon resident age 65 and older. Senior residents are able to audit a class without paying tuition as long as the instructor agrees and space is available.

The Senior Adult Learning Center (SALC) offers access to most of PSU's 5,000 classes to Oregon residents who are 65 and older. Whether auditors are interested in History, Jazz, Literature, Geography, Physical Education classes, or many other subjects, there is something for everyone. After joining SALC, seniors can audit classes without paying tuition if the instructor agrees and space is available.

Continuing Education Programs in Minneapolis/St Paul (Collected by Lynn Hartshorn, SCC)

The University of Minnesota

<https://ccaps.umn.edu>

Many regular classes are offered to seniors (if space is available). Seniors can audit classes at no cost, but pay \$10 per credit. This applies to all the University of Minnesota Campuses.

[The University of St Thomas Selim Center](#)

Continuing education programs for seniors are offered. Examples of classes include:
Psychology for Sustainability Latin America: A Comprehensive Overview from Strangers to Neighbors: A History of the Hmong Social Movements, Past, Present and Future
Troublesome Texts: When the Bible is a Problem
When Republicans were Progressive

Most classes last about 6 weeks and cost \$90.

These are some examples of classes open to seniors. If you are interested, check on your local college or university website and find out if seniors can take classes. Let us know what you find out!

72-Year ACS Member, Laurens Anderson Supported Project SEED

By Geraldine Vent, Manager, Major and Planned Gifts, ACS Development

Laurens "Andy" Anderson, 98, emeritus professor of biochemistry at the University of Wisconsin, Madison, was a strong, longtime supporter of ACS Project SEED. An ACS member for 72 years, Anderson passed away in November 2018 at the age of 98.

He drew parallels between the Project SEED program—which provides economically disadvantaged high school students the opportunity to explore science alongside a dedicated mentor—and his own early experiences that sparked his passion for chemistry. Anderson went on to carve out a 40-year career as a world-renowned carbohydrate chemistry expert.

Anderson's curiosity for chemistry began back in 1930. When as a 10 year old, he read labels on cans of sodium hydroxide (lye) used for soap making at the local general store in Recluse, Wyoming. After being sent to live with his aunt and uncle in South Dakota to further his education, he received mentoring from a science teacher that fueled his interest in the central science. Graduating from high school at age 15, Anderson earned a teaching certificate, taught at a country school, and saved enough money to enroll at the University of Wyoming.

In 1942, Anderson earned his BS in chemistry and a commission as 2nd lieutenant in the U.S. Army. After training in the U.S. Army Air Corps, he flew a B-24 Liberator out of Italy during World War II. Following an honorable discharge in 1945, he married his wife, Doris, and earned his PhD in biochemistry at the University of Wisconsin-Madison in 1951.

Anderson synthesized carbohydrate molecules with unique properties that would become part of what he later called his "green box collection." These compounds are now valuable resources for researchers at the University of Wisconsin's Carbone Cancer Center's Drug Development Core. Anderson was awarded the prestigious ACS Hudson Award for Carbohydrate Chemistry in 1984.

Please consider making a donation TODAY to Project SEED, which provides support to students who can become the next generation of researchers and innovators in our profession. To donate, go to www.acs.org/seed. To include Project SEED in your will, please contact Mary Bet Dobson at (202) 872-6210 or PlannedGifts@acs.org.



Senior Chemists Career Stories CHEMISTRY FOR NEW FRONTIERS

Sponsored by the Small Chemical Businesses Division
& the Senior Chemists Committee
ACS 2019 National Meeting in Orlando, FL



MONDAY, APRIL 1, 2019
Hilton Orlando Hotel, Orlando V
8:00 – 10:05 A.M.



EDITOR'S NOTE

by Lynn Hartshorn

*We hope you have enjoyed reading this Newsletter. We welcome your comments and suggestions. **As always, we need articles from our readers!** The Newsletter would not be possible without the help of our readers. We publish a wide variety of articles: examples include chemistry, senior activities and retirement, trips to unusual destinations and interesting museums, the history of science, volunteer activities, etc. If you have an idea but are not sure if it would be a suitable article, send an email with your suggestion to:*

SeniorChemists@acs.org.

*The maximum length is 500 words, but shorter articles are welcome. **Please submit your articles and ideas to the email address above, in the form of a Doc or DocX.** Photos and images are very welcome, please submit them in JPEG or PDF formats.*

Thanks, and we look forward to hearing from you. Pg. 11

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