THE MIDLAND CHEMIST

A publication of the Midland Section of the American Chemical Society

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Contents

Chair Column – The Calendar

Mark Jones, Chair, Midland Section ACS

The calendar used to be something that hung on the wall. This time of year, I would be turning the calendar to the last page, recognizing the need for a new calendar. I was partial to the fake motivational poster calendars when I had an actual office with actual walls capable of hanging an actual calendar. Posters such as a picture of a meeting room accompanied by "Meetings: None of us is as dumb as all of us" matched my sense of humor. They were a standing Christmas present for many years, something the kids knew I needed, something consumed in use capable of being purchased again and again.

That changed.

In part, it changed because offices changed. Four walls and a door became a luxury enjoyed by fewer and fewer folks. The main culprit is not open offices, it is digitization. Calendars are now electronic, devoid of pictures or cartoons. They are no longer discrete, replaced yearly. They are continuous. My calendar doesn't change as the new year changes, it just keeps rolling along adding bits and bytes. The satisfaction of hanging a new calendar and removing the old is gone.

I regret not having a physical calendar for 2020. I regret not having something I can ball up and throw away. Tossing 2020 in the garbage would feel good. We are about to turn the metaphorical page and my tenure as Local Section Chair will end.

The ACS Midland Local Section navigated 2020 reasonably well. I knew Amanda Palumbo and the banner year the section enjoyed in 2019 would be a tough act to follow. The Central Regional Meeting held in Midland in 2019 was a roaring success. 2020 did not offer anything similar. We made small strides in reaching out and recognizing the importance of the great chemistry happening in Midland. Our normally robust outreach programs were impacted by the pandemic, limiting our ability to be out in the community. In spite of restrictions, we did manage programs. We will be celebrating those programs, those successes, on December 9 in a joint volunteer appreciation and ChemLuminary event. We have 19 finalists in this year's ChemLuminaries, showing great resilience in a tough year.

Optimism about the new year, about getting the troubles of 2020 behind us, is high. Volunteer opportunities abound and we welcome anyone wishing to get involved. I wish Robbyn Prange well as she becomes Chair of the Local Section. I look forward to working with her in 2021. I am certain I will be easier to follow than Amanda was.

Midland Section Board of Directors Elections

Michelle Cummings, Chair, Nominations and Elections Committee

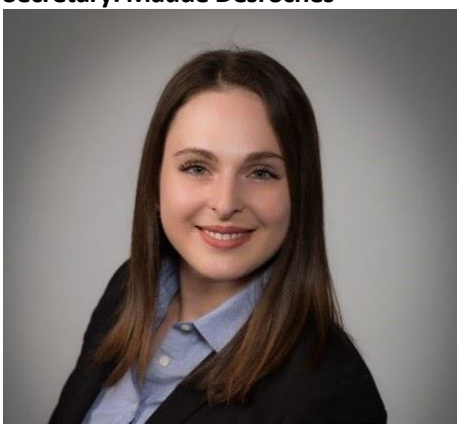
The Midland Section elections opened Monday, October 12, 2020 and closed Monday, November 2, 2020. Approximately 16% of the membership chose to participate in voting. Thank you to all the nominees and all the Midland Section members!

Congratulations to our candidates that have been elected for 2021. You can find biographical information on our elected officers in the 2020 October issue of *The Midland Chemist*.

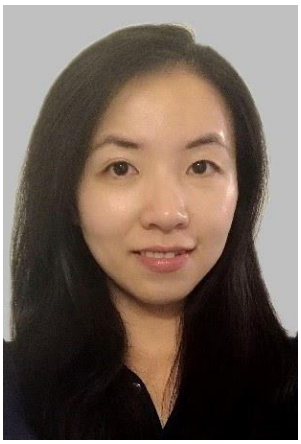
Chair-Elect: Joel P. McDonald

Treasurer: Lauren McCullough

Secretary: Maude Desroches



Nominations and Elections Chair: Shuting Feng



Councilor: Dale LeCaptain

Alternate Councilor: Wendy Flory

Director 3 year: Amanda Palumbo

Director 3 year: Michelle Rivard

Director 3 year: Regina Malczewski

Director 1 year: Michael Coote

Scholarships Available from Fund #399!

Gina Malczewski, Outreach, Midland Section ACS

Midland ACS is once again offering two scholarships of $1500 each to students who apply to fund #399 at the Midland Area Community Foundation. Officially, the fund is intended to "Provide financial support to college students seeking academic degrees in the chemical sciences at colleges and universities in the state of Michigan. The section's area is Midland, Bay, Saginaw, Gratiot and Isabella Counties as of this writing, but may be expanded. Eligible students will be those majoring in a chemical science who are entering the sophomore, junior or senior level of study and are a high school graduate from the section's geographical area. The requirements for receiving a scholarship will be based on academic achievement and potential for contributions to the chemical sciences."

Applications are now being accepted through February 15, 2021. Applicants will need transcripts and recommendation letters, as well as an essay about their reasons for studying in a chemical field and thoughts about future plans. The link to apply is https://www.midlandfoundation.org/scholarships/

Yes, you CAN contribute to the scholarship fund! To do so, please go to https://www.midlandfoundation.org/fund/midland-section-american-chemical-society-endowed-scholarship-fund-399/

Considerations/recommendations for applicants: more lengthy academic records are easier to assess, so upper classmen may have an advantage. Recommendation letters should be strong and positive! Examples of "Chemical Sciences" are chemistry, biochemistry and chemical engineering. It is advisable to "get personal" in your essay and describe your career/life goals.

If you have questions (about applications or donations), please contact Gina Malczewski at reginamalczewski@gmail.com or Heather Crowl at the Midland Area Community Foundation.

Thomas H. Lane, Industry Matters Newsletter

Editor's note: This article is reprinted from the December 3, 2020 issue of *Industry Matters Newsletter*, an online publication of the American Chemical Society; ACS Industry Matters_Tom Lane_December 3, 2020

Thomas H. Lane, Retired, Dow Corning Corporation, Past President, American Chemical Society

Thomas H. Lane, Retired, Dow Corning Corporation, Past President, American Chemical Society

Tom received his undergraduate education in chemistry at Purdue University, a master's degree from Central Michigan University, and his PhD in physical organic chemistry from the OU in England. Both Purdue and CMU have recognized Tom with their Distinguished Alumni Award for his contributions to science, education, and his community. Tom also received The OU's highest recognition, Doctor of the University, which was presented at a special ceremony in Versailles, France.

He worked at the Dow Corning Corporation for 35 years where he achieved the highest scientific rank within the Corporation for his technical and leadership contributions. In addition, he has held academic positions in both the US and the UK. He is a Fellow of the Royal Society of Chemistry, an American Chemical Society Fellow, a Sequoyah Fellow of the American Indian Science and Engineering Society and a member in a number of other professional organizations. He has authored more than 200 scholarly reports, publications, patents, and book chapters. He has been invited and delivered more than 500 lectures around the world.

Tom was the elected president of the American Chemical Society (2009), and later joined the staff of Delta College as Chief Academic Officer and Vice President of Instruction and Learning Services. In retirement, Tom continues to focus his energies on education and student success.

For fun, Tom enjoys photography.

In its April/May 2008 issue, The *Southwest Retort* (Dallas-Ft. Worth Local Section), published an interview in which you said the following, "The U.S. position in science and engineering as compared to the rest of the world is woefully average and losing ground." How would you assess the situation today – more than 12 years later?

I fear the short answer to your question is, little has changed. For context, this question was first answered in a dynamic interview after a discussion of measuring attitudes around science and the importance of putting a public face on our discipline. Specifically, we talked about a then recent study called ROSE (Relevance of Science Education), which studied the attitudes of 15-year-old girls and boys toward science.

The conclusions were startling. Although the U.S. did not participate in the ROSE study, we do participate in the international TIMSS assessments and our position was woefully average. The 2020 National Science Board Science & Engineering Indicators report, "The State of U.S. Science & Engineering", recently concluded that based-on average TIMSS, mathematics and science scores of eighth graders continue to rank in the middle of advanced economies. Further, the data suggest that

there has been little to no change in these assessment scores for more than a decade. These data remain a call to action, and I hope that the Society will renew its collective efforts to put a human face on our discipline.

What was the most memorable trip you took during your three-year term as a member of the ACS Presidential succession?

My three years in the ACS Presidential succession were the best years of my life! Every trip was memorable, and not because of the location, but because of the people I had the privilege to interact with. I especially enjoyed talking with chemistry students. Their energy, curiosity, and commitment to our discipline had assured me that our future was in good hands. Interestingly, enough time has passed since serving in the succession that many of the students that I had interacted with have graduated and some have students of their own. To my surprise and pleasure, I am being invited by some of those next generation students to answer their questions and to share why I am proud to be a chemist, improving people's lives through the transforming power of chemistry!

All that said, one student-based interaction does stand out. After the spring 2009 national meeting, I received a very angry email from a chemistry professor at a small college in Missouri. The department sent three undergraduates to the meeting to present their work: two posters and one platform presentation. Unfortunately, they were scheduled for late afternoon of the last day of the meeting. No one showed up for the presentations. I replied immediately with my apologies and a reminder that we all have given a paper, or two, to the projectionist and symposium chair. I then offered to visit the college to receive their presentations. The offer was instantly accepted, and we agreed that they would present to me, and I would return the favor and present to them.

I cannot tell you how surprised I was when I entered the lecture hall: it was full! These three students had an audience that numbered in the hundreds. Everyone was there, including the college's administration, faculty, and family who showed up to lend their support. It was incredible, and all three students did an outstanding job presenting and defending their work. I returned the favor and then spent the rest of the day talking with small groups of students about my experiences and working in the discipline. This is one of my favorite memories.

How have your parents influenced your leadership style?

Dwight D. Eisenhower once said, "Leadership is the art of getting someone else to do something you want done because they want to do it." I could not agree more; leading with inspiration over rigid directions will always yield better outcomes. In my opinion, leading with inspiration requires the mastery of the seven C's (competency, communication, collaboration, courage, commitment, creativity, and competition).

My parent's leadership style was more directive than inspirational, but the skills they taught me allowed me to find and develop my own leadership style. I may need to offer a little background. I am one of seven children, six boys and a girl (I was number five), who grew up poor. Neither of my parents completed high school, and both had to work to make ends meet. I learned so much from them about the skill sets required to be a productive contributor to society. I learned how to be courageous, committed, and how to develop competence from my father. He taught me how to work hard and never give up. My mother taught me the importance of effective communication, collaboration and creativity. She taught me about the importance of people and how to care about everyone.

I learned about being competitive mostly from the dinner table! Mastery of these skills have served as the bedrock for my leadership style (coaching/affiliative), which has proved effective during my professional career.

While in high school, you met an "incredible teacher/mentor" named Kneeland Nesius--your chemistry teacher. Is that the model for getting more teens interested in the sciences? And if so, what can be done to make such interactions more intentional and less serendipitous? Or are there better ways to generate this interest?

I love teachers! They have one of the most important jobs on the planet, educating our children for our collective future. Imagine, if you will, that second only to the nourishment of our bodies is the nourishment of our minds! Just as important as maintaining a healthy body is developing and nourishing an active mind. Teachers are the creative chefs charged with this difficult task.

By finding new and creative ways to develop healthy habits and a taste for learning, we can nourish these young minds for a lifetime. Chemistry and the other science-rich subject areas are critical to a balanced intellectual palate. Our children cannot be expected to compete in our global society on just "burgers and fries." We must find new ways to serve up the STEM disciplines in ways that encourage our children and our communities to experiment -- to try just one bite. Who knows? Some might go

back for seconds! Teachers must be significant contributors to the solution for education in the U.S. Therefore, we need to listen to their views and perspectives.

For more than three decades, I have been listening to teachers. The outcomes from these conversations have been extremely enlightening. Teachers are master educators who are passionate and committed to their profession. They are brilliant thinkers with the inside-track on what will really work in a classroom. These conversations have revealed that the solutions to our education woes are not about money. The answers revolve around five common needs -- needs that were universally voiced regardless of country, culture, or other demographics. The five things that teachers consistently asked for are:

- Networks – most teachers teach in isolation. Imagine, as a scientist, working in isolation without access to the knowledge and insights of colleagues!
- Content in context – although master educators, they are limited by their prior experience to place required content into a practical context. How can they teach students about the transforming power of chemistry when they don't know what a chemist (engineer, physicist, mathematician, or inventor) actually does?
- Support – from parents, fellow teachers, administration, community, business and industry. They long for support to try new ideas, to experiment, and to learn. They need friends and mentors to guide them through real examples of science in everyday life.
- Courage – to try new ideas, experiment, and learn. Some teachers feel they're under-prepared to teach certain subjects. Others simply need guidance to help them navigate. Some need courage to give science the priority it needs and deserves.
- Time – to teach, network, experiment, and learn. If content delivery is a process, then could we use our collective knowledge of process optimization to "create" time?

Building credible relationships with local schools and teachers is one step toward creating an environment ripe for change. The ACS's Science Coaches program and the creation of American Association of Chemistry Teachers are two important tools to address some of the needs of our teachers.

A word about my chemistry teacher, Kneeland Nesius. He believed enough in me to allow me to believe in myself. He always took time to answer my naive questions. He helped me with science projects and personally took me to the regional science fairs because my parents could not. He saw beyond my socio-economic context – beyond the aptitude tests and grades – and he saw someone worth believing in. Wouldn't it be grand if we all believed enough in someone to allow them to believe in themselves?

I once asked Mr. Nesius "Why"—Why did he take the time with me? What did he see in me? And – more important, what should I be looking for in others? His answer continues to teach me. He said he knew all I needed was the opportunity to be successful, so he did his best to provide experiences that might lead to those opportunities. You know, I wanted to make him proud in the 11th grade, and I still do…I invited Mr. Nesius, who is now a professor emeritus, to Washington, D.C. to participate in my installation as president-elect of the American Chemical Society. I am not sure which of us was more proud that night!

What non-technical skills were most responsible for your advancement at Dow? Any thoughts on how chemistry students and early-career chemists can accelerate developing critical non-technical skills?

For correctness, I worked at the former Dow Corning Corporation. Dow Corning was the oldest continuously operated joint venture in the history of business. In 2016 the Dow Chemical Company bought Corning's share in the corporation, and the Dow Corning Corporation has now been fully integrated into Dow.

To be brief, the 7 C's! However, I am sure that you are looking for a little more than that. So, I would like to talk about effective oral communication and in particular the power of storytelling. Through effective storytelling, you can engage, inspire, energize, and achieve your objective. If done well, you become an influencer in your organization, and leadership will seek you out because of your ability to deliver factual information in a way that engages your audience's imagination, which can help them see what could be.

Over the years I have been privileged to have worked with so many brilliant people. Unfortunately, few were skilled in storytelling. All of them could tell you what they did in gory technical detail, but few could help you imagine what could be because of the work. I was reminded of the power of storytelling at budget time. Every year, after presenting my proposals, I got everything I asked for. This is to a very large extent because of effective storytelling; engaging, inspiring, and energizing the audience of what could be, by supporting the work.

One of the greatest compliments I have ever received came from one of our CEO's, who said something like this, "Lane, not everyone likes what you say, but everyone wants to hear what you think." This is the power of storytelling, and I would encourage all students and early-career chemist to learn how to tell a story. It will be a differentiator in your career.

Talk about the metaphorical "one that got away". Is there a project that eluded you during your career at Dow? Why? And if you could return to it, what would you do differently?

During the last decade of my career, my research team was focused on determining if there were any productive biochemistry of silicon. One of the targets we started with was a simple single cell plant, the diatom. Diatoms are pervasive and make up a significant portion of the Earth's biomass. One of the interesting facts about diatoms is that they process nearly 7 billion metric tons of silicon, as silicic acid and small silicates, every year. They use these silicates to produce a porous but strong cell wall called frustules. These siliceous walls are beautiful - nanostructures assembled over microns! I recommend that you do a Google search for diatom images to get a sense of the diversity and complexity of these little guys.

Although we did unlock several of the diatom's secrets, I still feel that we were somehow outsmarted by a single cell plant! Not a good feeling. Since then, the diatom's genome has been sorted and mapped. This genetic information has made it possible to more fully understand some of the biopathways for silicon, not only in diatoms but in a number of other biosystems. Teasing secrets from nature was humbling, but what a great decade of research.

It can be a challenging time to be a mid-career chemist working in industry. Any advice for current-day, mid-career industry colleagues working at places like Dow, DuPont, BASF, P&G, and other large companies, who wish to continue to thrive and advance professionally?

This is the best time in history to be a chemist. We live in a rapidly changing and challenging time that will require innovative solutions to problems that have not yet even been identified. Opportunities abound for those who are willing to focus, refine, and learn the skills required to meet the change we are facing.

Our industry is changing, as it always has, and reorganizations within our industry have become a constant. I know that during my 35-year career, it seems that every 18 to 24 months we either structurally reorganized or changed our management philosophy. As a young chemist, these changes were nerve racking; but with time, I realized that these changes seldom changed what I did, just who I told. This realization allowed me to remain focused on my research and not sucked down into the politics of the day. That is not say that I was never taken out of my comfort zone; I was! However, I refined the skills that needed upgrading and committed to learn everything I needed to be successful.

ACS played a critical role on my career journey. Like most, I often felt I was ready for new challenges before my management did. The excuse most often given for not expanding my role was that I did not have the experience needed for the job. My local section gave me the opportunity to develop some of those important experiences: leading without authority, budgets, project management, and so many more.

In addition to these opportunities to learn and serve, the Society has a tremendous suite of products and services for members who are just starting out or who are ready to make a change in their careers. I would direct those interested in help to www.acs.org/careers for additional information. This site provides information for both job seekers and employers. Job seekers will find career advice, updated salary information, access to continuing education resources, a place to post a resume, and ways to search the job bank. You can even listen to senior professionals talk about their careers and receive a few tips for success through the ACS Careers Industry Forum. The ACS Careers Blog is an interesting place to check out too.

However, one of the most important assets the Society has to offer a job seeker is ACS Network Chemistry Community Online. A great place to visit, especially the Profession and Career Development forums. The ACS Career Navigator is replete with valuable information too! The ACS Leadership Development Systems is a must for building and refining your management skills. It focuses on core leadership competencies and the curriculum includes both e-learning and in person courses.

You have said that you were the first one in your family to attend college. Given that, was your college graduation particularly memorable or celebratory?

No. I did attend my graduation, but my focus was not on celebrating but rather on getting ready for the next step of my journey. I married, moved to Midland, and started a 35-year career at Dow Corning. Sorry, I guess I saved the celebrations for becoming the President-Elect of the world's largest scientific society dedicated to a single discipline!

What have you learned about yourself during the pandemic?

Well, we introverts have learned that we have been training for a pandemic our whole life! Yes, I miss travel, our annual meetings, and my friends, but the lock down has given me the opportunity to sharpen some of my skills. I enjoy the time alone and being more mindful in all of my daily activities.

How did you and bow ties get to be such an item? When was the last time you wore a necktie?

You may recall, I grew up in a large family with very limited means. Every year during the holiday season my mother would make the needed holiday vest(s), after redistributing last year's apparel (hand-me-downs). When we all had a vest, my mother would examine the remaining fabric; and if there was enough material, she would make clip-on bow ties. I have pictures of me in bow ties from the age 2 and up until we could convince her that bow ties were no longer cool.

My mother died in December 2007 just before I was installed as President-Elect. I stopped wearing long ties when she passed; and now, in her memory, I only wear bow ties (but not clip-on). I use the short time it takes to tie my bow tie to remember her and all of the wonderful things that she did for us growing up.

Midland, Michigan has been home for a long time. It's not widely known for its balmy winters. What keeps you there?

Midland is my home. True, winters can be interesting, but Midland is a small town with many of the attributes of a big city. Our Center for the Arts is second to none, and its director has been very successful in bringing serious talent to Midland. We have been able to see performances by likes of Yo-Yo Ma and Sarah Chang for the price of a ticket that costs less than parking in the city. We even entertained Sarah Chang in our home during her stay in Midland. Did you know that her grandmother was a chemist?

We share a symphony conductor (Bohuslav Rattay) with El Paso, TX, and our theater performances are impressive. Being a company town does have its advantages. That said, in 2018 the **Business Insider** named Midland the most boring city in the state, and I am okay with that! If you love the four seasons, being outdoors, and don't mind a little snow, Midland is for you. Oh, and the airport is only 20 miles away, and I can be anywhere in just a couple of flights.

You are a serious photographer. Care to share an image with our audience and tell us why you selected this particular image?

I do like to pretend that I am a photographer, and that I am serious, which does not necessarily translate to being any good. 2020 has been an interesting year in my photographic journey. This May, two dams breached, causing massive flooding in Midland and surrounding areas. We lost our house, and I lost a

great deal of my equipment, darkroom, and nearly all of my negatives (physical and digital) over sixty years of work gone. So, the image I will share was taken with some new tools in a makeshift basement studio in the middle of this COVID-lockdown. I think the image sums up the year pretty well.

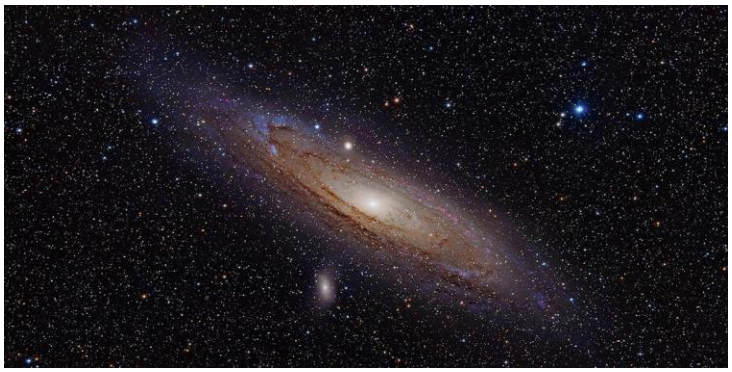
MSU St. Andrews Family Astronomy Night via Zoom, December 8
Clare Light, Project/Event Coordinator, MSU St. Andrews

MSU St. Andrews
MICHIGAN STATE UNIVERSITY

Family Astronomy Night

How the Universe Was Discovered in the Constellations of Fall

Tuesday, December 8 at 7:00 PM - Virtual Event via Zoom



Did you know that in just a few weeks, Jupiter and Saturn will appear closer together in the sky than at any time since the year 1623? Have you noticed that there are star clusters and even some galaxies in the sky right now that you can see with your unaided eye? Have you heard that the best meteor shower of the year is coming up this month? And what exactly is this "solstice" that happens on December 21? Most importantly, are you aware that many of the greatest discoveries in the history of astronomy—from the oldest-known variable star to the existence of galaxies beyond our own—were made in the constellations of fall? There is so much happening in the December sky; join us by Zoom to learn more!

Join us via Zoom
Tuesday, December 8 @ 7:00 PM

Join Link: https://msu.zoom.us/j/91004588472
Password: MSU

Families with school-age and older children (and adults!) are invited to join us virtually at MSU-Midland for a presentation focused on the constellations of fall. Specifically, we will focus on several very old constellations. (Yes, some constellations are older than others!) Our selected constellations are not only close together in the sky, making them easier to find, but are connected

to one another by an interesting set of mythological stories. And best of all, each of them has something special to offer: favorite double stars, Nobel-prize-winning discoveries, well-known star clusters, famous variable stars, and even a galaxy visible to the unaided eye. Just as important, we will also describe how astronomers have discovered some of these things, and how these fall objects changed our understanding of our universe forever.

As always, we will show you how to find the planets and other cool things that are currently in the sky this month. Certainly, we will show you where to find the fall constellations and their special features. But also—have you been watching Jupiter and Saturn closing in on one another all year, and how that has sped up during fall? Have you noticed that Mars just passed its closest approach to Earth for the next 15 years—and that it has already decreased noticeably in brightness since then? Have you seen brilliant Venus lighting up the morning sky? We will help you see all of these things (and December's meteor shower) for yourself.

Finally, we will spend a few moments on the largest and perhaps the most famous radio telescopes in the world, and why it may be shut down forever.

Attention students! MSU St. Andrews participates in the Great Lakes Bay Region **STEM Passport** program. Attend a virtual Family Astronomy Night and log it as a STEM experience on your passport!

Photo credit: *https://commons.wikimedia.org/wiki/File:Andromeda_Galaxy_(with_h-alpha).jpg*

Michigan State University is committed to providing equal opportunity for participation in all programs, services, and activities. Accommodation for persons with disabilities may be requested by contacting (517) 432-4499 by Tuesday, December 1, 2020. Requests received after this date will be honored whenever possible.

MSU St. Andrews

See our Facebook page at: https://www.facebook.com/MSUStAndrews

Calling All Coaches

Gina Malczewski, Outreach, Midland Section ACS

First suggested by our own Tom Lane when he was National ACS president, the ACS Science Coaching program has been going strong for about 10 years now. Midland was part of the pilot. Several of us have been coaches the entire time, and enjoy the opportunity to interact with local educators.

The premise of the program is that teachers may benefit from a relationship with a professional scientist in several ways—personal support to build a "comfort level" with curriculum topics, assistance with chemical hazards (think old stock rooms), help with science fairs, or visits to classrooms. The teacher determines the form the "coaching" will take. Any area educator can participate, once they join AACT (the ACS American

Association of Chemistry Teachers, covering all K-12 teachers of science) for $50/yr. Membership allows the educator access to online resources added by teachers themselves, including activities with curriculum alignment, and associated worksheets. Coaching is a school year-long commitment, requiring at least six meetings between coach and teacher; it provides $500 of cash support or in kind science supplies for the participating teacher.

Due to privacy concerns, National ACS cannot notify us of all our local fellow coaches. If you are a coach, contact Gina Malczewski at reginamalczewski@gmail.com if you wish to pool resources, or get ideas from other coaches. One effort being considered area-wide in this time of COVID-19 is a virtual teacher workshop, so we would like to recruit as many educators as possible to participate (and you could help!).

If you are not currently a coach or a participating teacher and are interested in becoming one for the 2020-2021 school year, please feel free to contact Gina and/or visit these related websites:

https://teachchemistry.org/

https://www.acs.org/content/acs/en/education/outreach/science-coaches.html

Thanks to all our participants—for your enthusiasm, and for your patience—as we work through creative ways to help our education community during this unusually challenging time. Those of us who coach really enjoy these special connections!

Midland's Wendell Dilling Going into Michigan Senior Olympics Hall of Fame

Steve Keinath, Co-Editor, The Midland Chemist

Editor's note: The article appended below is reprinted, in part, from an article which was published in the Thursday, November 19, 2020 issue of the *Midland Daily News*. Dan Chalk (chalk@mdn.net) authored the original article for the *Midland Daily News*.

Many of you may know Wendell Dilling from the days of his 30-year career at the Dow Chemical Company (1962-1992) and/or from his follow-on 28-year affiliation, and counting, with the Chemistry Department at Central Michigan University (1992-present).

Some of us as Midland Section ACS members also know Wendell well from his longstanding commitment to and active contributions to the Midland local section. He has been a member of the ACS since 1959, and an active member of the Midland Section since 1962 where he has held multiple board and committee positions. Additionally, Wendell has been involved at the Regional, Divisional, and National ACS levels.

Notable ACS awards that have been bestowed upon Wendell over the years include the Midland Section ACS Award for Outstanding Achievement and Promotion of the Chemical Sciences, 1982; the Midland Section ACS Award for Outstanding Service to the ACS, 1992; ACS Fellow, Class of 2010; and the Midland Section ACS Science Education Volunteer Award, 2018.

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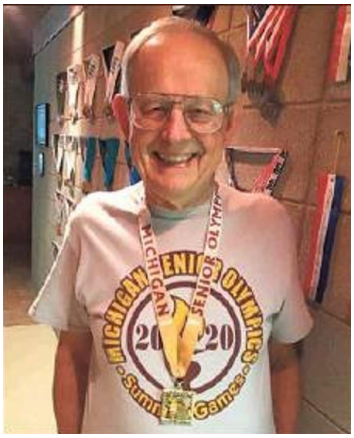
When Midland's Wendell Dilling decided to attend the Michigan Senior Olympics Summer Games as a spectator in Midland in 2001, he made an important observation – one that has led to almost two decades of remarkable success. "I saw an announcement in the paper that they were going to have the Summer Games in Midland. I thought it was a very high-level competition," Dilling said. "So, I went as a spectator in 2001. And as I was watching, I thought, 'Maybe I could do about as well as some of the people who are competing.'" It turned out, Dilling, who is now 84, was spot on about that. Dilling signed up for the Summer Games the following year, in 2002, and he has competed ever since then, winning a total of 155 medals so far.



Wendell Dilling (photo at left) wearing one of his 155 Michigan Senior Olympics medals. (Photo provided by Wendell Dilling)

Accomplishments like this don't go unnoticed, and Dilling was recently inducted into the Michigan Senior Olympics Hall of Fame. "I'm very honored to have been selected to be added to their list in the Senior Olympics Hall of Fame for Michigan," Dilling said. "I've known that they've had this Hall of Fame for quite a while, and I didn't think I would qualify for it."

Dilling's neighbor and fellow Senior Olympian, Becky Wieland, nominated him for the Hall of Fame. "If it hadn't been for Becky Wieland, who nominated me, and the committee, who selected me, this couldn't have happened," Dilling said. "I feel very honored that they selected me. I'm very happy about it."

Wieland happens to live across the street from Dilling and his wife, but she got to know Dilling when he encouraged her to go out for Senior Olympics, which she started doing in 2009. "He talked me into doing this, and he did the same with other seniors in Midland over the years," Wieland said. "He encouraged everybody. He helped different athletes with techniques and would occasionally loan them a piece of his equipment if they wanted to try out something new. It was neat to see him achieve this honor," Wieland said. "We senior athletes in Midland are really proud of this honor that Wendell has achieved."

Michigan Senior Olympics plans to have a dinner and formal recognition of Dilling and his fellow 2020 Hall of Fame inductees next August.

Michigan Senior Olympics offers competitions for ages 50 and over. It was founded in 1979 and is a member of the National Senior Games Association. The organization's website says, "MSO is dispelling the myth of aging, as well as serving as the impetus for this age group to maintain a healthy body, mind, and spirit. The result is a healthier, more productive life for all while lowering the health care costs in the State of Michigan."

Dilling's list of achievements in the Michigan Senior Olympics is impressive, to say the least. In 19 competitions over 18 years, he has competed in track and field, road races, cycling, and canoeing. Dilling has earned 23 gold medals, 60 silver medals, and 72 bronze medals, along with two ribbons. He holds three MSO records: set in both the hammer throw and the triple jump in 2006, and in the 5,000-meter power walk in 2019. Dilling won at least one gold medal in 10 different track and field events between 2004 and 2019. He even returned to

competition in 2004 after undergoing heart bypass surgery in 2003 and won five track and field medals in one day, including gold in the pole vault.

Dilling has also represented Michigan in the National Senior Games in 2005, 2007, 2009, and 2013, earning five ribbons in total. In 2007 at the National Games, he competed in all 13 track and field events and won ribbons in the hammer throw and triple jump. Dilling has also been an advocate for the Michigan Senior Olympics for many years, encouraging other athletes in their pursuits.

Dilling said his passion for sports started when he played in an afternoon softball league at his elementary school in North Manchester, IN. He later played baseball in high school and threw the shot put, discus, and javelin while attending what is now called Manchester University in the same town.

Wendell Dilling (photo at right) has competed in the javelin event among many other events in the Michigan Senior Olympics. (Photo provided by Wendell Dilling)

After graduate school at Purdue University, Dilling began a 30-year career as a Ph.D. research chemist with Dow in Midland. He actually took a 14-year break from competitive sports at that time.

At around age 40, Dilling started to run 5K and 10K road races. He was also an avid cyclist. In the 1987 National 24-hour Challenge, Wendell and his daughter, Robin Susanne Vatalaro, won a first-place tie with 458 miles combined in the father/daughter category.

In 1996, Dilling completed the Cross-Country America by Bicycle Challenge, biking from the Pacific Ocean in California across 13 states and 3,957 miles to the Atlantic Ocean in Maine in a little over seven weeks.

He has given up cycling and running in recent years but continues to compete in walking events at the Senior Olympics. "In recent years, I would walk in the running events. Because there's few enough people entered in the races, I can still get a medal by walking," Dilling said.

Although Dilling says he is not "a big social guy," he has developed some camaraderie with other senior athletes around the state. Dilling has been in many competitions over the years with two athletes named Joe Gormly and Jerry White, and the three have been dubbed "The Three Amigos." They even have custom-made T-shirts bearing that name.

Dilling's wife, Marcia Dilling, who did a lot of distance cycling with him in the past, said his determination and persistence have been important factors in his athletic success. "He is very well-organized and sees things through to the end," Marcia observed. "If he starts something, he finishes it. He doesn't do anything halfway. He has a big desire to keep himself physically fit. He's had pretty good meals at home, and good nutrition helps," Marcia added lightheartedly.

Marcia has been a steadfast supporter of her husband's Senior Olympics pursuits, taking many pictures of Wendell in his competitions over the years. "I'm very proud of him for achieving this and I certainly think he deserves it," she said.

Midland Section ACS Receives 19 ChemLuminary Nominations for 2019 Programs

Amanda Palumbo, Past Chair, Midland Section ACS

The Midland Section of the American Chemical Society is honored to receive ***19 ChemLuminary nominations for 2019 programming,*** including Outstanding Section Performance in the Medium Size Category. See the full list of the 19 nominations below.

Last year was a busy, productive, and fulfilling year for the Midland Section, with the culmination of three important local section-sponsored programs including the 100th year anniversary of the ACS Midland Section, the "H2O Q" Citizen Science Experiment, and the 50th Central Regional Meeting. This recognition is a testament to the dedication of our members, volunteers, and board to partner with the community to ensure public participation in learning, celebrate chemistry in everyday life, and nurture the interest and promotion of the value of science.

Winners will be announced at the 22nd Annual ChemLuminary Awards ceremony on **Wednesday, December 9, 2020, at 4:00 PM (Eastern Time). The virtual ceremony is FREE and all are welcome to attend. Register online here.** The virtual ceremony will include a keynote address by Janet L. Bryant, recipient of the Award for Volunteer Service to the American Chemical Society, and the presentations of awards given by 23 committees of the Society will follow.

Thank you to everyone for your service and commitment to our community and the ACS!

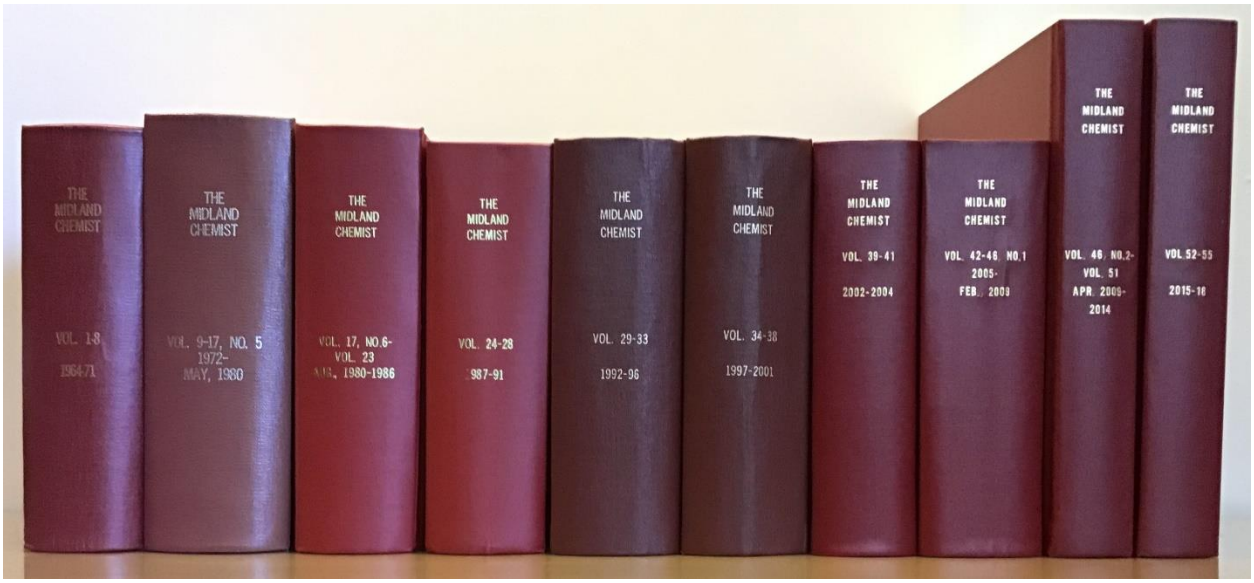
To learn more about the ChemLuminary Awards and to register to attend the 22nd Annual ChemLuminary Awards virtual ceremony, please visit https://www.acs.org/content/acs/en/funding-and-awards/awards/community/chemluminary.html.

- **Outstanding Performance by a Local Section (Medium Size)**

- **Chemists with Disabilities Inclusion Award** – *"Creation of a Tactile 3D Printed Periodic Table in Braille & ASL"*
- **Outstanding Community Involvement in CCEW** – *"Chemists Celebrate Earth Week Programming"*
- **Outstanding Local Section Industry Event** – *"2019 Central Regional Meeting – Celebratory Chemical Heritage Symposium"*
- **Outstanding Local Section Programming Related to the Promotion of Ethics in Chemistry** – *"Centennial Museum Exhibit – Display on Unintended Consequences"*
- **Outstanding Continuing Public Relations Program of a Local Section** – *"Public Relations for Midland Section"*
- **Best Event or Activity Organized by, or Benefiting, the Applied Chemical Technology Professional Community** – *"2019 Central Regional Meeting – Mid-Michigan Technologist Group Programming and Events"*
- **Outstanding Leadership Development Program** – *"Women Chemists Committee, Skills Beyond the Bench"*
- **Best Activity or Program Stimulating Member Involvement** – *"H2O Q – Citizen Science Water Quality Experiment"*
- **Local Section Partnership Award/Marinda Li Wu Award** – *"Public Museum Exhibition: Science Paints Our World, Chemistry and Arts"*
- **Most Innovative New Activity or Program** – *"H2O Q – Citizen Science Water Quality Experiment"*
- **MAC Industry Engagement & Outreach** – "*2019 Central Regional Meeting – Technologists in Industry Symposium"*
- **Best Continuing Senior Chemists Activity within a Local Section** – "*Midland ACS Centennial Museum Exhibit, 'A Century of Science and Service'"*
- **Best New Senior Chemists Activity within a Local Section** – *"Silver Circle Midland Section Centennial Celebration"*
- **Fostering Interactions between Local Sections and Student Chapters** – *"Events and Partnerships with Women Chemists Committee, CERM 2019, Mid-Michigan Technologist Group, CMU/Midland Section Joint Meeting"*
- **Outstanding U.S. National Chemistry Olympiad** – *"Midland Local Section Chemistry Olympiad"*
- **Best Overall WCC Local Section** – "*Midland Section Women Chemists Committee*"
- **Outstanding Local Section YCC** – "*Midland Section Younger Chemists Committee Revival in Diversity and Partnerships"*
- **Outstanding or Creative Local Section Younger Chemists Committee Event** – "*Younger Chemists Committee and Silver Circle – Experience Exchange Luncheon and Panel Discussion at Central Regional Meeting"*

In Past Issues of *The Midland Chemist*

Wendell L. Dilling, Director and Historian, Midland Section ACS



From these volumes . . .

50 Years Ago, *The Midland Chemist* **1970**, *7*, No. 9, 3.
In *The Chairman Speaks* by G. E. Hartzell, Chairman, Midland Section: "The Midland Section's stand on discrimination appeared to be a first in the American Chemical Society and achieved wide acclaim. Our activity in the area of aid to disadvantaged got off the ground with some real thrust and leadership. We still have a long way to go on this extremely difficult problem, but I feel that significant progress was made this year."

40 Years Ago, *The Midland Chemist* **1981**, *18*, No. 1, 2.
In *Councilor Young Contender For Top ACS Post*: "David C. Young has been selected by the ACS Committee on Nominations and Elections as one of four candidates for the position of ACS president. At the upcoming national meeting in Atlanta, the Council will, in turn choose the two finalists for the fall election by the general membership. Only two other Midland Section members, Howard Nutting and E.C. Britton, have ever been so honored. Of these, only Britton served as president (1952). If elected, Young would become president-elect in 1982 and president in 1983."

30 Years Ago, *The Midland Chemist* **1990**, *27*, No. 7, 3.
In *Chairman's Column* by Bill Pike, Chairman, ACS Midland Section: "Congratulations to Dow Corning Corporation and its employees on the new research facilities which opened in early October! A feature article on the facilities and the open house appear in the next issue. In this issue, an article on Alma College's new science facilities appears. Our area is definitely seeing a growth and upgrading of facilities for science teaching and research."

20 Years Ago, *The Midland Chemist* **2000**, *37*, No. 8, 13.
In *Matching Gift Received for Outreach* by Wendell L. Dilling: "We are extremely pleased to announce that the Midland Section recently received a matching gift of $14,860 from the national ACS for our outreach programs National Chemistry Week, Project SEED, and National Chemistry Olympiad. This gift matched a portion of the contributions we received from The Dow Chemical Company Foundation and from Dow Corning Corporation this year for these programs. We wish to express our great appreciation to these two benefactors for their generosity to the Midland Section. We are also grateful to the national ACS Board of Directors for making this matching gift to the Midland Section possible."

10 Years Ago, *The Midland Chemist* **2010**, *47*, No. 6, 4.
In *2010 FSM & Sci-Fest Highlights* by Scott D. Rettelle, Editor: "Saturday, November 6th, marked the annual Fall Scientific Meeting (FSM) and Sci-Fest which was located in Mt. Pleasant, Michigan. The site was the main hallway of the Engineering Technology building on the campus of Central Michigan University.
This year's theme, Making Stuff: The Science of Materials encompassed the National Chemistry week theme: Behind the Scenes with Chemistry.
Usually held as separate events, this year's combined effort presented a unique opportunity for those who wanted to learn about what's going on in the scientific community, while also allowing an opportunity to expose children to the wonderful world of science.
The FSM, which is the premier meeting for, and is sponsored by, the Midland Section of the ACS, was held on the second floor. Over fifty research posters were presented by CMU and MSU students alike, along with representation from the MidMichigan Technician's Group (MMTG) and the Midland Local Section. Talks on new developments in nanomaterials, biomaterials, and a workshop were scheduled as well."

Upcoming Dates, Events, and Other Updates

- December 7 (7:00 – 8:00 PM) – Midland Section ACS Board meeting, MCFTA Board Room (in person), or via a WebEx conference call connection at Midland Section WebEx Board Meeting December 2020, phone number: 989-633-1166.
- December 8 (7:00 – 8:30 PM) – MSU St. Andrews Family Astronomy Night. Free virtual event via Zoom. Watch for more event details and Zoom information coming soon. For more information, please see https://standrews.msu.edu/event/family-astronomy-night-tuesday-december-8-at-7-pm-virtual-event/.
- December 9 (4:00 PM to ??) – 22nd Annual ChemLuminary Awards virtual ceremony. This virtual ceremony is free and all are welcome to attend. However, pre-registration is required ahead of time at https://www.acs.org/content/acs/en/funding-and-awards/awards/community/chemluminary.html.
- December 9 (4:00 PM to ??) – 2020 Volunteer Appreciation event / 22nd Annual ChemLuminary Awards virtual ceremony watch party. Save the date; more details to follow. For more information, please contact Amanda Palumbo at amanda.palumbo@dow.com.
- January 4 (tentative date) (7:00 – 8:00 PM) – Midland Section ACS Board meeting, MCFTA Board Room (anticipated location, in person), or via a WebEx conference call connection (TBD), phone number: 989-633-1166.
- February 1 (tentative date) (7:00 – 8:00 PM) – Midland Section ACS Board meeting, MCFTA Board Room (anticipated location, in person), or via a WebEx conference call connection (TBD), phone number: 989-633-1166.

- March 1 (tentative date) (7:00 – 8:00 PM) – Midland Section ACS Board meeting, MCFTA Board Room (anticipated location, in person), or via a WebEx conference call connection (TBD), phone number: 989-633-1166.
- March 21-25, 2021 – **Live event cancelled** – Spring 2021 National ACS Meeting & Exposition, San Antonio, TX and Online. Virtual-only event rescheduled for April 5-16, 2021. Meeting theme – *Macromolecular Chemistry: The Second Century*. For more information and scheduling updates, please see https://www.acs.org/content/acs/en/meetings/national-meeting/about/future-meetings.html.
- April 5 (tentative date) (7:00 – 8:00 PM) – Midland Section ACS Board meeting, MCFTA Board Room (anticipated location, in person), or via a WebEx conference call connection (TBD), phone number: 989-633-1166.
- April 5-16, 2021 (Save the Date) – Spring 2021 National ACS Meeting & Exposition, Virtual event. Meeting theme – *Macromolecular Chemistry: The Second Century*. For more information, please see https://www.acs.org/content/acs/en/meetings/national-meeting/about/future-meetings.html.
- May 3 (tentative date) (7:00 – 8:00 PM) – Midland Section ACS Board meeting, MCFTA Board Room (anticipated location, in person), or via a WebEx conference call connection (TBD), phone number: 989-633-1166.
- May/June 2021 (Dates TBD) – 2020 ACS Central Regional Meeting, Columbus, OH. Note: CERM 2020 was postponed and will potentially take place in May or June 2021. The dates are still to be determined. For more information, please see https://cerm2020.org/?sc=200226_mtg_em_regional_CERM_od.
- June 6-9, 2021 (Save the Date) – 2021 ACS Great Lakes Regional Meeting (GLRM), Minneapolis, MN. For more information, please see https://www.acs.org/content/acs/en/meetings/regional/great-lakes.html.
- June 7 (tentative date) (7:00 – 8:00 PM) – Midland Section ACS Board meeting, MCFTA Board Room (anticipated location, in person), or via a WebEx conference call connection (TBD), phone number: 989-633-1166.
- August 22-26, 2021 (Save the Date) – Fall 2021 National ACS Meeting & Exposition, Atlanta, GA and Online. Meeting theme – *Resilience of Chemistry*. For more information, please see https://www.acs.org/content/acs/en/meetings/national-meeting/about/future-meetings.html.

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