

THE MIDLAND CHEMIST

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Chair Column

Erin Vogel, Chair, Midland Section ACS

Hello, readers. In case you missed the first two issues of the *Midland Chemist* this year, I am using my Chair Column space to allow others to share their WHY by highlighting the passion and experience of those in our field. If you missed the first two issues, I recommend going back and catching up to hear from me and James Walker, an R&D leader at Dow.

This month, I reached out to someone who plays a very important role in our community, Dr. Lindsay Zeeb. Lindsay is a Breast Imaging Diagnostic Radiologist, the Medical Director at the Center for Women's Health at MyMichigan Health in Midland, and the Vice Chief of Staff at MyMichigan Health Midland. Lindsay graduated with a Bachelor of Science degree from Grand Valley State University and earned her medical degree at Wayne State University School of Medicine. Following her degrees, she completed her residency at the University of Vermont and a fellowship at the University of Michigan. From here, I turn it over to Lindsay.



Dr. Lindsay Zeeb

My job is to identify breast cancer in screening and diagnostic mammogram images. I also use other modalities such as breast ultrasound or MRI to try and figure that out. If there is an area of suspicion, I perform image guided breast biopsies or a sampling of the tissue using a needle. I also consult with breast surgeons, oncologists, and radiation oncologists to develop an individual plan for each breast cancer patient so that he or she has the best chance of a cure. I also interpret prostate MRI studies in the pursuit of detecting aggressive prostate cancers.

The best part of my job is knowing that what I do makes a difference in the life of a patient. If detected early, breast cancer has a high likelihood of a cure. This can come in many different forms – from knowing I made a procedure quick and painless for a patient, a thank you many years after patients have been found to be cancer free, or when I know I have detected breast cancer early on a mammogram.

I am in science because I love to learn how and try to figure out why things happen in our world. I think I am naturally a curious person and always up for a challenge. I like to solve puzzles and human biology, especially, is an amazing intricate puzzle. In junior high I was encouraged by my parents to participate in Science Olympiad, and I always liked my science classes, but it wasn't until I had a Biology class in high school that I knew my future career would be in the health sciences. I can't recall exactly why, but I think I found the human biology section particularly interesting.

Have you had to overcome any barriers or obstacles over your career?

I have had to overcome many obstacles over my career, and I am currently in one of those challenging times. Like many working environments, healthcare is ever changing. I think my persistence and tenacity to rise and meet those challenges (instead of giving up) has paid off. While this is not one of my strengths and I have had to work on it, being patient in knowing that a solution isn't going to come right away has also helped in my endeavors.

What big problem do you see that you believe can be solved through the power of science?

I believe the power of science has the ability to improve health and increase the number of quality years of life that we as human beings can have. During my career I have already witnessed scientific improvements in breast and prostate imaging and can only imagine what the future will hold. Some of these are listed below:

- I trained during a time when breast MRI (magnetic resonance imaging) was just starting to be used in a clinical setting and participated in one of the first MRI guided biopsies at the University of Vermont.
- We have had greater improvements in the form of mammography which is now being done with a 3D technique also known as tomosynthesis. This has increased our cancer detection rate and decreased the number of false positives.
- We now have improved artificial intelligence or computer aided detection (CAD) that helps radiologists in detecting potential cancers on a mammogram.
- We have improved systems to help surgeons localize a cancer during surgery.
- Prostate MRI has really exploded because we have now found a way to target biopsies by mapping the MRI finding to ultrasound images used during an ultrasound guided biopsy.

What would you like to be remembered for?

As a physician, my desired legacy is to be remembered for the compassionate and personalized care that I provide. I strive to make a positive impact on the lives of those I have the privilege to care for and I hope to be remembered as someone who not only helped them, but also provided comfort and support during challenging times. My goal is to leave behind a legacy of empathy, kindness, and dedication to the wellbeing of others, knowing that I made a meaningful difference in their life.

What gives you fulfillment outside of work?

Outside of work I find most of my joy comes from being with my family. We go up north to our cottage during the summer to enjoy the lake, sand dunes, and to be with friends. My husband and I downhill skied when we lived in Vermont. Now we love to make trips up north to ski/snowboard with our daughters. Everyone but me, now snowboards. I tend to unwind in the evenings by reading a good book. I try to combat stress and work-related burnout with exercise whether it's cycling, running, or strength training.

2024 CCEW Illustrated Poem Contest – Get A Charge Out of Chemistry

Hannah Bailey, Mid-Michigan Technicians Group, Midland Section ACS

The Midland Local Section of the American Chemical Society (ACS) is sponsoring an Illustrated Poem Contest for students in Kindergarten through 12th grade. Write and illustrate a poem using the Chemists Celebrate Earth Week (CCEW) theme – Get A Charge Out of Chemistry.

Please note: Contest deadline is Friday April 12, 2024

Gift cards and prizes for all 1st and 2nd place winners in each grade category!

Contact MidlandACSPoem@gmail.com for any questions.

This contest is open to anyone in the Great Lakes Bay Region and beyond. Winners of the Midland Local Section's Illustrated Poem Contest will advance to the National Illustrated Poem Contest for a chance to be featured on the ACS website and to win prizes!



April 21-27, 2024 | #CCEW



Visit [Illustrated Poem Contest – Chemists Celebrate Earth Week – American Chemical Society \(acs.org\)](https://www.acs.org) for complete rules. Poems can be submitted [HERE](#). Contact MidlandACSPoem@gmail.com for any questions.

Announcing the 2024 Spring Awards Recognition Banquet and Call for Nominations **Wendy Flory and Tami Sivy, Awards Committee Co-Chairs, Midland Section ACS**

The 33rd annual American Chemical Society-Midland Section Spring Awards Recognition Banquet is scheduled for Wednesday, May 1, 2024, at the Great Hall Banquet & Convention Center in Midland. Please consider taking a moment to read about the awards that are open for nominations and consider nominating a worthy peer. Details of the program, including the featured speaker, are still being finalized. Watch for the *Midland Chemist* April issue for all the information and how you can register to attend.

The awards program is about recognizing outstanding educators, volunteers, and colleagues that you have graciously taken the time to nominate. The awards banquet is a great way to connect with others in the industry, those who have gone before us, those who teach the next generation, and those who will be following in our footsteps. Please consider joining us on Wednesday, May 1. We continue with the goal of having outstanding students from all area high schools and universities/colleges recognized, and to have a nominee for each award offered this year. Please help make this happen as there are very deserving people in every category!

The process of nominating is very easy. The minimum submission criteria for nominations are a quality nominating letter extolling the virtues of your nominee and supporting the criteria of the award, along with one supporting letter of recommendation, two are even better (outstanding high school and collegiate student awards require only the nomination form submitted by the appropriate chemistry teacher or department head). The letter must state why the nominee is deserving of the award with specific examples of professional involvement/growth, contributions to industry, and outside affiliations. It is highly recommended that the nomination includes a publications and patent list where applicable. Additional letters of support can come from students, parents, community members, and/or administrators. An example nomination letter can be requested from the awards committee co-chairs via email.

Consider getting your colleagues together for lunch and putting together a nomination packet. If you are in a managerial role and are worried about favoritism, consider nominating two to three qualified persons (you will remain anonymous, if requested, and nominations are considered for three years). If you would like to be considered for an award, there is the option to self-nominate. If you are a parent, consider nominating your child's outstanding science or chemistry teacher, or a science volunteer you know. It takes less than an hour to put together an award-winning letter and an additional 15 minutes soliciting supporting letters. Think of what it will mean to that person and how good you will feel about your generous deed.

Previous award recipients are listed on pages 13 to 17 of the January edition of the newsletter at [The Midland Chemist - January 2024 \(midlandacs.org\)](https://www.midlandacs.org), as nominees must not have received the award that they are being nominated for within the past ten years. Nominations not meeting the minimum requirements, and submissions received after the **Sunday, March 24, 2024, deadline**, will not be considered.

Please reach out if you have any questions to Wendy Flory (wcflorey@dow.com) or Tami Sivy (tsivy@svsu.edu), Midland Section ACS Awards Committee Co-Chairs.

Call for Nominations: 2024 Teaching, Volunteer, Education, and Chemical Sciences Awards
Wendy Flory and Tami Sivy, Awards Committee Co-Chairs, Midland Section ACS

The Midland Section of the American Chemical Society presents awards to recognize outstanding achievement in the chemical sciences each year. Nominations for the 2024 awards are invited for the following areas:

- Outstanding Achievement: Elementary Level Science Teaching
- Outstanding Achievement: Middle Level Science Teaching
- Outstanding Achievement: High School Chemistry Teaching
- Outstanding Achievement: College Chemistry Teaching
- Science Education Volunteer of the Year
- Outstanding Achievement in the Promotion of Diversity in Chemistry, Related Sciences, and Engineering
(Not offered this year; awarded every other year)
- Outstanding Achievement and Promotion of the Chemical Sciences
- Outstanding Service to the American Chemical Society
- Outstanding Chemical Technician
- Outstanding High School / College Chemistry Students
- Team Innovation Award

The deadline for all nominations is Sunday, March 24, 2024. Nominations not meeting the minimum requirements, and submissions received after the March 24 deadline, will not be considered. Mail or fax submissions are acceptable; *electronic (email) submissions are preferred*. All submissions must be accompanied by the name, position, address, and phone number of the nominator.

Award recipients as well as Chemistry Olympiad winners, National Chemistry Week Poem Contest winners, and Fifty/Sixty/Seventy Year ACS Members will be honored with certificates or plaques and featured in an article in the *Midland Chemist*.

The Awards Committee greatly appreciates the efforts involved in nominating someone and wishes to thank you for helping to recognize deserving students, colleagues, and educators in our local section. Please pass this information along to anyone involved in our local science programs!

The National ACS has many great awards available as well. The links to the web addresses where you can find the list of awards and the criteria for nomination are listed on page 7. Now is the time to begin nominations for National ACS awards for 2024-2025 as most annual reviews have a deadline of around November 1, 2024.

For more detail on any award, please contact Wendy Flory (wcflorey@dow.com) or Tami Sivy (tsivy@svsu.edu), Midland Section ACS Awards Committee Co-Chairs.



American Chemical Society – Midland Section

Nomination Form for 2024 Outstanding High School / Collegiate Chemistry Student

(Note: One nominee per school, please)

Dept. Chair or other Nominator: _____

Telephone number: _____

Email address (required): _____

School: _____

Student's name: (Mr./Ms.) _____
(Indicate) (Please print legibly)

Home address: _____

Telephone number: _____

Email address (required): _____

Student's career/postgraduate plans (if known):

Please return this form to the following addresses no later than **Sunday, March 24, 2024:**

Wendy Flory (wcfloxy@dow.com) or Tami Sivy (tsivy@svsu.edu)
Midland Section ACS Awards Committee Co-Chairs

ACS National Awards for 2024–2025 Nomination

Wendy Flory and Tami Sivy, Awards Committee Co-Chairs, Midland Section ACS

Editor's note: Several Midland Section ACS members have received various National ACS awards over the years. A list of past recipients may be found in the January edition of the newsletter at [The Midland Chemist - January 2024 \(midlandacs.org\)](https://www.midlandacs.org/newsletter/2024-01).

Criteria and deadlines for the National ACS awards, and other grants and considerations, can be found at <http://www.acs.org/content/acs/en/funding-and-awards/awards/national/nominations.html>.

The full list of National ACS awards by title can be found at <https://www.acs.org/content/acs/en/funding-and-awards/awards/national/bytopic.html>.

ACS Fall 2024 Meeting and Exposition – Abstract Submission Deadline, April 1

Steve Keinath, Co-Editor, The Midland Chemist

Editor's note: The information contained in this article is reprinted, in part, from material provided in an email message posted to all ACS members, dated March 5, 2024.



Submit your abstracts for oral and poster presentations for the ACS Fall 2024 Meeting and Exposition. The meeting theme, **Elevating Chemistry**, will be at the core of programming. Sessions for the hybrid meeting (in-person & virtual) will be held in Denver, Colorado, and virtually, **August 18-22, 2024**. Those who wish to submit an abstract will have the option of selecting a virtual or in-person abstract submission.

New in 2024 – Global Virtual Symposia is a programming opportunity for presenters and audiences to participate in ACS Meetings & Expositions virtually and across many time zones. While in-person participants and general programming will be set to local time in Denver, CO (MT, GMT-5), select symposia will be set to daytime hours in Asia, Oceania, Africa, Europe, the Middle East, and Latin America. Click to **learn more and submit** an abstract.

ACS Meetings & Expositions bring together chemistry professionals, educators, and students worldwide to discover and share research, network, and advance careers. These meetings are an excellent opportunity for professionals and students to showcase their work and connect with colleagues in all areas of chemistry.

Visit the website to find a list of the programming divisions and planned symposia open for submissions. **The deadline to submit an abstract is Monday, April 1, 2024.**

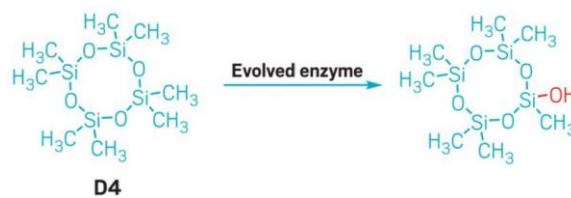
Dow Scientists Coauthor *Science* Article with Nobel Laureate Frances Arnold Steve Keinath, Co-Editor, *The Midland Chemist*

Editor's note: The article that appears below is reprinted, in part, from the February 5, 2024, issue of *C&EN* (Vol. 102, No. 4, p. 3). The article was originally authored by Life Sciences Senior Correspondent Bethany Halford of *C&EN*.

EVOLVED ENZYME BREAKS SILICON-CARBON BOND

Discovery Points to a Route for Biodegradation of Volatile Methyl Siloxanes

Using directed evolution, scientists have created the first enzyme known to break a silicon-carbon bond. The finding could be a preliminary step toward biodegrading volatile methyl siloxanes – chemicals that are made by the megaton each year.



Many consumer products contain volatile methyl siloxanes, including hair conditioners and lotions, and they're also used to make larger silicone polymers. Some studies suggest these chemicals are persistent pollutants that accumulate in marine wildlife, including cormorants, seals, and turtles. The European Union has proposed restricting the use of cyclic methyl siloxanes known as D4, D5, and D6, and classifying them as persistent organic pollutants.

“Part of the reason we embarked on this research was the detrimental effects of siloxanes on biota as well as the environment,” says Nicholas Sarai, the study's first author. He worked on the project when he was a graduate student in Frances Arnold's laboratory at Caltech.

Arnold is known for creating enzymes that can forge new bonds – work that garnered her a share of the 2018 Nobel Prize in Chemistry. In 2016, Arnold and coworkers created an enzyme that could create a Si–C bond. The work got the attention of scientists at Dow, a major producer of volatile methyl siloxanes, who reached out to Arnold to see if her lab could develop an enzyme that broke Si–C bonds. Arnold and Dow's Dimitris Katsoulis led the latest project.

“There are no organosilicons in nature. And that's why nature doesn't break them down” using enzymes, Arnold says. “It's just a bond that nature doesn't really care about.”

The researchers found that a cytochrome P450 enzyme they had previously developed for breaking Si–H bonds could, to a small degree, also break a Si–C bond in volatile methyl siloxanes. Using directed evolution, they were able to improve the enzyme's activity. The evolved enzyme catalyzes two tandem

oxidations of a siloxane's methyl group, which cleaves the Si–C bond. The transformation works on both cyclic and linear volatile methyl siloxanes (*Science*, 2024, DOI:10.1126/science.adi5554).

“We’ve only been able to demonstrate that chemistry on one methyl group,” Sarai says. He notes that oxidizing a single Si–C bond in a volatile methyl siloxane does not biodegrade the molecule. “But it is a proof of concept that enzymes are able to do this silicon-carbon bond cleavage.”

“Our enzyme is terrible. It’s not a good enzyme, but it shows that it can be done,” Arnold says. “My whole goal is to open people’s minds about what biological systems can do. And this is such a great example of that.”

Ellie Browne, expert in siloxane environmental chemistry at the University of Colorado Boulder, says that there’s substantial interest in ways to degrade persistent siloxanes in the natural environment and in landfills. “Biodegradation is a potentially exciting and novel way forward,” she says in an email. But she agrees that this is only a first step. “It would be exciting to see further degradation to break multiple Si–C bonds on a single siloxane,” she says.

Klaus Kümmerer, who studies sustainable chemistry at Leuphana University Lüneburg, says that the finding is an important step forward in siloxanes chemistry, but he thinks there are too many challenges with using evolved enzymes to degrade methyl siloxanes in the environment to make the approach viable. “We should design chemicals from the very beginning (benign by design) for fast and full environmental mineralization by abundant natural enzymes,” he says in an email. Also, he says, “we should more think about whether certain chemicals, for example in cosmetics or shampoo, are really needed or whether they are just nice to have.”

Update: This article was updated by *C&EN* on February 28, 2024, to clarify Frances Arnold’s remarks about nature not breaking down organosilicon compounds. She was referring to the breakdown via enzymes specifically.

Added notes: The title of the original *Science* article referenced by *C&EN* above was “Directed Evolution of Enzymatic Silicon—Carbon Bond Cleavage in Siloxanes,” and that article appeared in the 26 January 2024 issue of *Science* (Vol. 383, Issue 6681, pp. 438-443). The article’s coauthors included Nicholas S. Sarai, Tyler J. Fulton, and Ryen L. O’Meara (Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA); Kadina E. Johnston (Division of Biology and Biological Engineering, California Institute of Technology, Pasadena, CA); Sabine Brinkmann-Chen (Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA); Ryan R. Maar, Ron E. Tecklenburg, John M. Roberts, and Jordan C.T. Reddel (Core R&D, Dow, Inc., Midland, MI); Dimitris E. Katsoulis (Dow Silicones Corporation, Auburn, MI); and Frances H. Arnold (Division of Chemistry and Chemical Engineering, California Institute of Technology, Pasadena, CA). Dimi Katsoulis and Frances Arnold were listed in the article as the corresponding coauthors.

Dimi Katsoulis is a 46-year member of the American Chemical Society, joining the ACS in 1978. He served as the General Chair of the ACS Central Regional Meeting (CERM) when the Midland Section ACS hosted that meeting on June 4-8, 2019, and he was named an ACS Fellow in 2021. John Roberts is a 16-year member of the American Chemical Society, joining the ACS in 2008.

Day in the Life of an Industrial Scientist

Kim Dinh, Inclusion & Diversity Committee, Midland Section ACS

The Inclusion & Diversity Committee co-hosted **Day in the Life of an Industrial Scientist** for a second year with the Mid-Michigan AIChE Equity, Diversity, and Inclusion Committee on January 27, 2024, at the Midland Center for the Arts. Our day-long workshop was funded by a #TeamUp Grant from the LPGA Dow Championship.

The purpose of the day is to highlight the diversity of STEM careers in industry and featured a problem-solving challenge where students and volunteer industrial mentors worked in groups to solve a problem, a poster session from the mentors to highlight their work, and plenty of time for networking.

The poster features the ACS logo (Chemistry for Life) and the Mid-Michigan AIChE logo. The title is "Day in the life of an industrial scientist 2nd edition". Below the title, it says "Problem solving challenge, poster session, and networking!". The event details are: **Who:** Students pursuing a STEM major; **When:** Saturday January 27th, 2024, 9 AM – 3 PM; **Where:** Midland Center for the Arts, 1001 W. D. Anderson Rd., Midland, MI 48640. A QR code is in the bottom right. A "Free Event!" section lists: "Breakfast, lunch and snacks provided", "Local transportation subsidized or provided", and "Registration required (use QR code)". Small photos at the bottom show people at a poster session and a group photo.



We had approximately 30 students in attendance from across the Great Lakes Bay Region, including high school and college students. Two students even attended from as far away as Wayne State University!



Problem-solving challenge facilitators (left to right), Deboleena Chakraborty, Brian Clark, and Anna Zink

The day was a great success with overwhelmingly positive feedback from the students and mentors. A big thank you to all our volunteer mentors and our problem-solving challenge facilitators, Brian Clark, Anna Zink, and Deboleena Chakraborty, who made the day a success!



Earth Day Action Expo Excitement!

Gina Malczewski, Director and Outreach Committee, Midland Section ACS

Plans are well underway for our “Earth Day Action Expo,” the signature event in our Earth Day/Chemists Celebrate Earth Week (CCEW) schedule. It will take place at **Dow High School in Midland, on Saturday, April 27, from 11:00 AM to 3:00 PM**. As in the past, there will be activities, displays, and products for sale inside and outside the school, and everything is **FREE!** We are planning for food trucks, at least one STEM bus, electric vehicles, and speakers during the expo. There may be additional seminars or tours at other times as well.

Last year we had about 50 exhibitors, and about 350 people attended. The 2024 ACS booth will focus on this year’s National CCEW theme: “Get A Charge Out of Chemistry” (Batteries!) – but many other environmentally-friendly organizations and businesses will be represented, too. Local submissions to the CCEW Illustrated Poem Contest will also be displayed.

And YES – You can HELP! Vendors and exhibitors are being solicited, and anyone interested can contact **Gina Malczewski** at reginamalczewski@gmail.com; a completed form is required. We are also looking for **VOLUNTEERS** to help with set-up and clean-up, as well as intake and passport turn-in. **SPONSORS** are also being identified, to cover various costs (including the volunteer lunches, which have historically been FREE). If you are interested in helping with the CCEW Illustrated Poem contest (we need judges), please direct your questions to **Hannah Bailey** at HannahBailey@dow.com.

Our planning committee has thankfully expanded this year, and we are delighted to have new experts at Chippewa Nature Center and Midland Center for the Arts helping us, along with our wonderful long-standing collaborators from Dow High Go Green and Midland Recyclers. Keep your eyes peeled for updates and additional details, but please reach out if you are looking for a great way to get involved.



2024 Earth Day Action Expo, April 27
Gina Malczewski and Amanda Palumbo, Midland Section ACS

Get a charge out of chemistry at the 2024 EARTH DAY ACTION EXPO



Save the Date

11 A.M. - 3 P.M.
SATURDAY, APRIL 27
HH Dow High School

You're invited to enjoy:

- Hands-On Science
- Arts & Crafts
- Give-Aways
- Food Trucks
- K-12 Illustrated Poem Exhibit
- 40+ Exhibitors

FREE AND OPEN TO EVERYONE
TO CELEBRATE EARTH DAY!



**CHEMISTS
CELEBRATE
EARTH WEEK**
GET A CHARGE
OUT OF CHEMISTRY



SCAN TO
WIN free expo lunch
SEE who's coming
SHARE the event



2024 Turner J. Alfrey Visiting Professorship Lecture, May 7

Karol Miller, Administrative Assistant, The Axia Institute, MSU St. Andrews, Midland

We are pleased to announce that [Dr. Tobin J. Marks](#) from Northwestern University will be the guest lecturer for the [2024 Turner J. Alfrey Visiting Professor Lecture Series](#).

Date: Tuesday, May 7, 2024 Time: 9:00 AM to 5:00 PM

Location: MSU St. Andrews, 1910 West St. Andrews Road, Midland

Guest Lecturer: Dr. Tobin J. Marks



Dr. Tobin J. Marks

Professor Marks' research focuses on sustainable and unsolved homogeneous and heterogeneous catalytic transformations, single-site surface catalysts, exploratory organo-f-element and early-transition metal organometallic chemistry, novel polymer design and synthesis, flexible, stretchable, and printable electronics, metal oxide electronics, new solar energy materials, molecule-based photonic materials, superconductivity, metal-organic chemical vapor deposition, and biological aspects of transition metal chemistry.

Research.com ranks Marks as the #3 Chemist in the US, and the #6 Chemist in the World. He has published 1,728 peer-reviewed articles and holds 278 issued US patents. He has an ISI h-index of 175 and a Google Scholar h-index of 196.

Marks earned a Bachelor of Science degree from the University of Maryland, and a Ph.D. from the Massachusetts Institute of Technology. Currently, Marks serves as a Professor of Chemistry at Northwestern University, in Evanston, Illinois.

Professor Marks has been recognized and named to multiple organizations and boards including the U.S., German, Italian, European, and Indian National Academies of Sciences, the American Philosophical Society, the U.S. National Academy of Engineering, the American Academy of Arts and Sciences, and the U.S. National Academy of Inventors. He is also an honorary fellow of the U.K. Royal Society of Chemistry, the Materials Research Society, the American Chemical Society, and the Chinese Chemical Society.

Professor Marks has also earned honorary doctorate degrees from Hong Kong University of Science and Technology, the University of South Carolina, the Ohio State University, and the Technical University of Munich. He has received more than 250 other national and international awards, prizes, lectureships, and fellowships. Some of his more notable awards include the U.S. National Medal of Science, Spanish Principe de Asturias Prize, MRS Von Hippel Award, Dreyfus Prize in Chemical Sciences, NAS Award in Chemical Sciences, ACS Joseph Priestley Medal, Israel Harvey Prize, and German Chemical Society Karl Ziegler Prize.

Accompanying Professor Marks will be [Dr. Yosi Kratish](#), Ph.D., from Northwestern University. Kratish earned his Ph.D. from the Israel Institute of Technology in Haifa, Israel. After earning his Ph.D., he joined Northwestern University in 2019 as a postdoctoral fellow in the Chemistry Department and spent two years in that role before being promoted to Research Assistant Professor. Kratish's focus areas are catalytic chemical recycling of plastics using supported single-site metal oxide and organometallics catalysts, homogeneous catalysts, and the study of molecular properties and reaction mechanisms using computational chemistry.

Kratish has authored 27 publications and holds 8 patents. Kratish is an affiliated faculty with the Paula M. Trienens Institute for Sustainability and Energy and the International Institute for Nanotechnology (IIN). He was recently recognized as a Querrey Entrepreneurial Fellow and received the McBride Postdoctoral Trainee Award. He has also been honored with the Israeli Ministry of Science and Technology Scholarship and the Miriam and Aaron Gutwirth Memorial Fellowship. Kratish also founded a startup company dedicated to reducing plastic waste through solventless catalytic technologies he developed. He also was involved in the formation of a second startup focused on commercializing catalytic technologies from Northwestern University.



Dr. Yosi Kratish

- Lectures will take place in person at MSU St. Andrews, in Midland.
- Networking luncheon included from 12:30 – 2:00 PM in the MSU St. Andrews Rotunda sponsored by the [Midland Section of the American Chemical Society](#).
- Dr. Marks and his associate, [Dr. Yosi Kratish](#), will deliver five, 45-minute talks throughout the day.
- Time will be allowed for Q&A and discussion.

[Registration is open now through Sunday, May 5, 2024, by clicking here.](#)

This is a free event, but pre-registration is required to help plan for the networking luncheon. Please share information about this event with others that may be interested in attending.

For more information, please contact Karol Miller at mill2785@msu.edu.

Agenda and Lecture Topics:

9:00 AM – Introduction and Housekeeping Items – MSU St. Andrews Staff

9:15 AM – Lecture #1 – Tobin Marks

Surface Science Meets Homogeneous Catalysis. Surfaces as Exceptional Ligands & Activators for Polymer Chemistry.

10:15 AM – Lecture #2 – Tobin Marks

At the Homogeneous – Heterogeneous Catalysis Interface. Processes for Waste Polymer Deconstruction and Upcycling in a Circular Economy.

11:15 AM – Morning Break

11:30 AM – Lecture #3 – Yosi Kratish

Selective and Solventless Lanthanide-Organic Catalyzed Depolymerization of Nylon-6 Plastics to ϵ -Caprolactam.

12:30 PM – Lunch Break

Lunch will be served in the MSU St. Andrews Rotunda with food provided compliments of the Midland Section of the American Chemical Society.

2:00 PM – Lecture #4 – Tobin Marks

Making Printable Mechanically Agile Electronics & Opto-Electronics a Reality – Polymers, Iontronics, and Amorphous Oxides.

3:00 PM – Lecture #5 – Tobin Marks

Disruptive Durable All-Polymer Solar Cells.

4:00 PM – Closing Remarks – Robert Bubeck, MSU St. Andrews

This is a free event, but pre-registration is required to help plan for the networking luncheon. Please register no later than Sunday, May 5, 2024, by clicking on [2024 Tuner J. Alfrey Visiting Professorship Lecture Registration](#).

Please share information about this event with others that may be interested in attending. For more information, please contact Karol Miller at mill2785@msu.edu.

Upcoming Detroit Section ACS Younger Chemists Committee Events

Carmen Folk, Younger Chemists Committee Co-Chair and Communications Committee, Detroit Section ACS

The Younger Chemists Committee of the Detroit Section ACS would like to extend a warm welcome to any and all interested Midland Section ACS members to attend a number of upcoming dinner (Dutch treat) and lecture events in the greater Detroit area. The following dinner/lecture events are planned:

Sturgeon Recovery in the Detroit River, Justin Chiotti, Fish Biologist, U.S. Fish & Wildlife Service

Tuesday, April 16, 2024, at Maverick's, 20970 West Road, Woodhaven, MI
Please RSVP at <https://forms.gle/u5Kf3kv6mVPisnDg8>

Companion Planting, Linda Simpson, Macomb County Master Gardening Association, MSU Extension

Tuesday, May 21, 2024, at O'Mara's Irish Restaurant, 2555 Twelve Mile Road, Berkley, MI
Please RSVP at <https://forms.gle/5XUMoWg46ordYfof7>

For more information, please see the associated program flyers on pages 16 and 17.



American Chemical Society – Detroit Local Section – Younger Chemists Committee Presents:



Facebook: Brewing Chemistry
Instagram: @BrewingChemistry
Twitter: @Brewingchem

Brewing Chemistry is a monthly lecture series. These informal talks are designed to make science fun and accessible for all.

Sturgeon Recovery in the Detroit River

Justin Chiotti, Fish Biologist, U.S. Fish and Wildlife Service

Tuesday, April 16, 2024

7pm presentation

An evening of libations, edible delights
and science inquiry

There is no admission charge, and free parking
is available.

Feel free to join us before the talk at 6:00 PM
for a Dutch-treat dinner.



Maverick's | in the enclosed covered patio | 20970 West Rd, Woodhaven, MI 48183

The U.S. Fish and Wildlife Service, in partnership with Michigan Sea Grant, conducts Sturgeon recovery research. Join Justin Chiotti on a discussion of the Lake Sturgeon recovery being conducted in the St. Clair – Detroit River System.

“The Detroit River and the St. Clair River do more than just connect the upper Great Lakes to the lower Great Lakes. While most people know the Detroit River and St. Clair River — referred to collectively as the Huron-Erie Corridor — as major commercial waterways used to support shipping and fishing. But this 32-mile connecting channel has another distinction: until the late 1800s, the corridor was an important spawning ground for lake sturgeon. Its fast-moving waters attracted thousands of the large, primitive fish every spring.

In the following decades, the number of lake sturgeon plummeted due to pollution, over-harvesting and loss of spawning habitat. The current population of lake sturgeon in Michigan is estimated to be about 1 percent of its former abundance. Organizations like Michigan Sea Grant and the U.S. Geological Survey are working to restore lake sturgeon and other native fish habitat in the waters of the Detroit River.” – from Michigan Sea Grant – partner in the Sturgeon Recovery Effort



Please RSVP for a headcount
<https://forms.gle/u5Kf3kv6mVPisnDg8>

Connect with us on Facebook for Event updates: <https://fb.me/e/18phOVc4N>

American Chemical Society – Detroit Local Section – Younger Chemists Committee *Presents:*

Brewing Chemistry

Detroit, Michigan

Brewing Chemistry is a monthly lecture series. These informal talks are designed to make science fun and accessible for all.

Companion Planting

by Linda Simpson

Macomb County Master Gardening Association, MSU extension

Tuesday, May 21, 2024

7:00 pm presentation

An evening of libations, edible delights, and science inquiry

There is no admission charge, and free parking is available.
Feel free to join us before the talk at 6:00 PM for a Dutch-treat dinner.

O'Mara's Irish Restaurant | 2555 Twelve Mile Rd, Berkley, MI 48072

Companion planting is when two plants are grown near each other to benefit one of those plants or both—so the benefit can be one way or mutual. This is a tried-and-tested way to reduce pests, attract pollinators, and boost growth! – farmer's almanac

Connect with us on Facebook for event updates:

<https://fb.me/e/1layqpJHV>

Please RSVP: <https://forms.gle/5XUMoWg46ordYfof7>

or use the QR Code



Facebook: Brewing Chemistry
Instagram: @BrewingChemistry
Twitter: @Brewingchem

In Memoriam – Frank P. Popoff **Steve Keinath, Co-Editor, *The Midland Chemist***

Editor's note: The obituary notice for Frank Popoff as it appears here is reprinted, in part, from the Wednesday, February 28, 2024, issue of the *Midland Daily News*. Frank was a long-time member of the American Chemical Society. He joined the ACS in 1987 and was a 37-year member of the ACS at the time of his passing.

In addition to reprinting Frank's obituary notice, two follow-on articles are also being reprinted. The first article, authored by *Midland Daily News* Editor Dave Clark, recounts the significant leadership role that Frank played within the Dow Chemical Company, setting up the company on a course for long-lasting success. The second article, authored by *Midland Daily News* Managing Editor Dan Chalk, shares vignettes of the personal influence that Frank had on Dow Chemical and community-wide leaders, urging them to be better and do better.



Frank Popoff, of Midland, passed away at his home on Sunday, February 25, 2024. He was 88.

Frank was born in Sofia, Bulgaria, on October 27, 1935, to Frank and Stany Popoff. The family, including his sister Joan, emigrated to Terre Haute, Indiana, in 1940. He graduated from Indiana University with a Bachelor's degree in Chemistry and an MBA in 1959. He met his wife, Jean Urse, while at Indiana University. They married in 1958 and celebrated their 65th wedding anniversary last year.

After graduation, Frank joined The Dow Chemical Company, beginning a career in a variety of marketing and business management positions in both the U.S. and Europe. In his 41-year career, he rose to the role of Chief Executive Officer and Board Chair.

Frank was an internationalist whose management responsibilities included various geographic areas, global operations and manufacturing, as well as global employee relations. He had roles in Dow's Sales and Marketing function before being named General Manager of the Agricultural and Organic Chemicals Department in 1975. He returned to Dow Europe as Vice President of Marketing and Sales the following year. In 1981, he became President of Dow Europe.

In 1985, he returned to the U.S. as Executive Vice President and was elected to the company's Executive Committee. In May 1987, Frank was named President and Chief Operating Officer, and in December of that year was named Chief Executive Officer of The Dow Chemical Company, a role he would continue until 1995. Elected to Dow's Board of Directors in 1982, he also served as Chairman of the Board from 1992-2000. He was elected Director Emeritus in 2000.

During his tenure as CEO, Frank twice received the first-place award for CEO of Excellence from Financial World Magazine. In 1989, the Queen of The Netherlands bestowed on him the title of Knight Commander in the Order Oranje-Nassau. He also received the Leadership Award from the United States Council for International Business in 1992 and the Palladium Medal Award in 1994.

Frank also was globally recognized as a leading proponent of sustainable development. In 1991, he was appointed by President George H.W. Bush to the President's Commission on Environmental Quality and was named chairman of the Committee on International Cooperation. He also received the Rene DuBos

Environmental Award in 1993 for his contribution toward the development of significant strategies dealing with the social and humanistic aspects of environmental problems. He was a founding member of The Business Council for Sustainable Development.

Over the course of his professional career, Frank served on the corporate boards of American Express Company, ShinEtsu Chemical Co., Ltd., United Technologies Corporation, and Chemical Financial Corporation. He also was a member of The Business Council, the American Chemical Society, the Council for Competitiveness, and the Midland Economic Development Council. He also served as senior vice chairman of the U.S. Council for International Business and was a director of the Chemical Manufacturers Association.

In addition to his business contributions, he also was a director of the International Committee of the Salk Institute and of The American Institute for Contemporary German Studies. He served on the boards of the Indiana University Foundation and its School of Business Dean's Advisory Council, the University of Michigan's School of Business Visiting Committee, the Michigan Molecular Institute, the Herbert H. and Grace A. Dow Family Foundation, and the MyMichigan Health Foundation.

Frank is survived by his wife, Jean, and their three sons and families: John, Thomas (Cathleen), and Steven (Kristen); grandchildren Max, Hanna, Mia, and Marcus; as well as many nieces and nephews. He was predeceased by his parents, and his sister and brother-in-law, Dr. Larry and Joan Garlington.

Frank cherished time with his family, including the hobbies they shared together throughout his life – skiing at Snowmass Village and boating on Lake Charlevoix. He would joke that as he got older, the boats got smaller, and shifted from sailboats to motorboats. After his retirement, he also took up woodworking in the basement of their home, making personalized toy chests for each grandchild, various types of furniture, and even Adirondack chairs built from the family's old skis, which he gifted to them.

Visitation took place at Ware-Smith-Woolever Funeral Home, 1200 West Wheeler Street, in Midland, MI, from 2:00 to 4:00 PM and from 6:00 to 8:00 PM on Thursday, February 29, 2024. A private family celebration of Frank's life will take place later. Those planning an expression of sympathy may consider the Dow College Opportunity Program at West Midland Family Center, the Frank Popoff Family Skilled Trades Scholarship Fund at the Midland Area Community Foundation, or the donor's choice.

"Vat, we will miss you."

The Ware Smith Woolever Funeral Directors are honored that the Popoff family has entrusted us with the care of their loved one. Condolences to the family may be made at www.wswfh.com.



Former Dow CEO, Frank Popoff, Set Company on a Course for Success

Steve Keinath, Co-Editor, *The Midland Chemist*

Editor's note: This article is reprinted, in part, from the Wednesday, February 28, 2024, issue of the *Midland Daily News*. The article was originally authored by Dave Clark, Editor of the *Midland Daily News*.



Former Dow Chemical Company Chief Executive Officer and board chair Frank Popoff died Sunday, February 25, 2024, at his home in Midland. He was 88. Popoff was born in Bulgaria in 1935 and emigrated to the United States with his family in 1940. He graduated from Indiana University with a Bachelor's degree in chemistry and earned an MBA in 1959.

He was hired by Dow after his graduation and held a variety of marketing and business management positions in both the U.S. and Europe during the course of his 41-year career. He had roles in sales and marketing before being named General Manager of the Agricultural and Organic Chemicals Department in 1975. In 1981, he became President of Dow Europe.

In 1987, Popoff was named President and Chief Operating Officer of Dow. Later that year, he was named Chief Executive Officer and served in that capacity until 1995. He was elected to Dow's board of directors in 1982, serving as chairman from 1992-2000. He was elected Director Emeritus in 2000.

In 1991, Popoff was appointed by President George H.W. Bush to the President's Commission on Environmental Quality and was named chairman of the Committee on International Cooperation.

In one of his last letters to stockholders as the Dow CEO, Popoff made a prediction. "Prepared to meet the challenges of today's new business reality," he wrote, "Dow will be a winner." "Thirty years later, his prediction is still coming true," said current Dow Chair and CEO, Jim Fitterling. "And it's coming true because he and his team set us on a course for success with their ability to not only run an efficient and growth-oriented company, but also with their ability to establish Dow globally."

Popoff is recognized as having transformed Dow's European operations within the international chemical industry. While President of Dow Europe, he grew the company's sales by nearly 30% and established the business model which Dow would use to expand internationally. As CEO, Popoff used his European experience to redefine Dow's global footprint and to reflect his view as one of the world's first corporate internationalists. He initiated expansions throughout the world and provided Dow with a global mindset that persists today.

It was during his CEO tenure as well when Dow became an early proponent and signee to "Responsible Care," a global voluntary initiative that emphasizes continuous improvement, especially in terms of site and employee safety. That decision ignited a cultural shift within the company – and sent a strong message throughout the industry – that safety must be a core value and constant focus.

Popoff's view on sustainability – as well as his insistence that the industry could play an outsized role in helping solve global challenges – continues to reverberate within Dow today, Fitterling said. "Frank outlined a basic truth that few people at the time wanted to face," Fitterling said. "He knew our industry – and our Company – would either have to embrace and help solve environmental issues or we would risk underperforming for

decades. Few people realize that Dow's Decarbonize & Grow and Transform the Waste strategies owe their inspiration to Frank's foundational work and vision."

Frank Popoff Made You Want to Be Better and Do Better

Steve Keinath, Co-Editor, *The Midland Chemist*

Editor's note: This article is reprinted, in part, from the Thursday, February 29, 2024, issue of the *Midland Daily News*. The article was originally authored by Dan Chalk, Managing Editor of the *Midland Daily News*.

MIDLAND LEADERS RECALL DOW CHAIRMAN'S INFLUENCE

Sarah Opperman remembers the impression that then-Dow Chemical CEO Frank Popoff made on her when she started working for him in communications in 1987. "I was a young employee, and going to meet the CEO could have been quite intimidating. But it wasn't, because he was so friendly and welcoming and took a personal interest in me first before we got on with the business at hand," Opperman recalled of Popoff. Opperman remained close friends with Popoff and his wife, Jean, up to the present.

To illustrate how down to earth Popoff was, Opperman recalled that when he was interviewed by *The Wall Street Journal* as a new executive and was asked what his favorite drink was, he responded, "The first cup of coffee in the morning." "To me, that was Frank Popoff – very genuine, very humble, and very endearing," Opperman said.

What also stood out to Opperman were Popoff's integrity and optimism as Dow's leader. "You worked hard (as a Dow employee), but you did so with a positive attitude and with humility. He was instrumental in setting that tone as CEO of the company," she said.

Opperman also admired the partnership that Frank and Jean demonstrated in their 65 years of marriage. "They were true partners in everything they did. They did everything together. It was always Frank and Jean," she said.

Terry Moore, former president of MidMichigan Health, said Popoff inspired him and others to be the best version of themselves. "Frank was an inspirational leader who was both admired and respected by everyone. He made you want to be better, do better, and he made you better," Moore said. "If you were fortunate to spend any amount of time around Frank, and you didn't feel like a better person, it was probably because you weren't paying attention."

Moore is also grateful that Popoff and his wife stayed involved in the Midland community after his retirement. "While many people leave Michigan after they retire from senior executive positions, Frank and Jean remained here and worked to improve the quality of life for the rest of us," Moore said. "He was one of the absolute finest leaders I have ever known. We are all poorer for his passing, but so much better for the leader/person he was."

Tim Nash, Director of Northwood University's McNair Center for the Advancement of Free Enterprise and Entrepreneurship, considers Popoff a "business hero." Nash got to know Frank and Jean Popoff shortly after being hired by Northwood in 1982 because they would attend many events at the Midland campus. "He always had time for me. There was never a bad question in his view. He was constantly looking to exchange ideas and banter on ideas. If you disagreed with him, that was OK. He didn't really have an ego," Nash said.

Nash said Popoff was grateful to live in the United States after his family had emigrated from Bulgaria in 1940 to escape both Nazi and Communist movements. “He used to point out he was American by choice rather than by birth,” Nash said. Nash also noted that Popoff connected with the late Pat Riepma, former Northwood head football coach and athletics director. Both men were going through cancer treatments at the same time and gave each other emotional support. “Frank was always looking to help others,” Nash said.

Upcoming Dates, Events, and Other Updates

- March 4 (7:00 – 8:30 PM) – Hybrid Midland Section ACS Board meeting, Rotunda Room, MSU St. Andrews, Midland (in person), and via a Microsoft Teams videoconference call connection at [March 2024 ACS Board Meeting Teams Link](#), Meeting ID: 939 576 147 515 1, Passcode: A52hAT.
- March 17-21 (Save the Date) – ACS Spring 2024 National Meeting & Exposition, New Orleans, LA, hybrid meeting (in-person and virtual). Meeting theme: *Many Flavors of Chemistry*. For more information, please see [ACS Spring 2024](#).
- March 18 (7:00 – 8:30 PM) – MSU St. Andrews Family Astronomy Night, free virtual event. Presentation topic: *The Great Total Solar Eclipse of 2024*. Please see <https://standrews.msu.edu/family-astronomy-night/> for more information about these ongoing monthly programs and to access prior archived presentations.
- March 24 – **Deadline for Midland Section ACS Spring Awards nominations** to honor outstanding educators, volunteers, and colleagues. For more information or any questions, please contact Midland Section ACS Awards Committee Co-Chairs Wendy Flory (wcfory@dow.com) or Tami Sivy (tsivy@svsu.edu).
- April 1 (7:00 – 8:30 PM) – Hybrid Midland Section ACS Board meeting, Rotunda Room, MSU St. Andrews, Midland (in person), and via a Microsoft Teams videoconference call connection at [April 2024 ACS Board Meeting Teams Link](#), Meeting ID: 939 576 147 515 1, Passcode: A52hAT.
- April 1 – **Deadline to submit abstracts for the ACS Fall 2024 National Meeting & Exposition**, Denver, CO, August 18-22, 2024 (in-person and virtual). Meeting theme: *Elevating Chemistry*. For more information, please see [ACS Meetings & Expositions - American Chemical Society](#).
- April 12 – **Deadline for Chemists Celebrate Earth Week (CCEW) Illustrated Poem Contest submissions**. For more information, please see the associated article on page 3. For any questions, please contact MidlandACSPoem@gmail.com.
- April 16 (6:00 – 8:00 PM) – Detroit Section ACS Younger Chemists Committee dinner/lecture event, *Sturgeon Recovery in the Detroit River*. 6:00 PM – Dutch treat dinner at Maverick’s, 20970 West Road, Woodhaven, MI. 7:00 PM – Lecture/presentation by Justin Chiotti, Fish Biologist, U.S. Fish & Wildlife Service. Please RSVP for dinner at <https://forms.gle/u5Kf3kv6mVPisnDg8>.
- April 27 (11:00 AM to 3:00 PM) – Midland Section ACS Outreach event, “*Earth Day Action Expo 2024*.” Free event at H.H. Dow High School, in Midland, open to everyone. For more information, please contact Gina Malczewski at reginamalczewski@gmail.com.
- May 1 (5:30 – 9:00 PM, tentative) – Midland Section ACS Spring Awards Recognition Banquet, Great Hall Banquet & Convention Center, 5121 Bay City Road, Midland. Cost: TBD. For more information or any questions, please contact Midland Section ACS Awards Committee Co-Chairs Wendy Flory (wcfory@dow.com) or Tami Sivy (tsivy@svsu.edu).

- May 5 – **Preregistration deadline to attend the 2024 Turner J. Alfrey Visiting Professor Lecture Series** program, Tuesday, May 7, 9:00 AM – 5:00 PM, featuring Prof. Tobin J. Marks from Northwestern University. Please register by clicking on [2024 Turner J. Alfrey Visiting Professorship Lecture Registration](#). For more information or any questions, please contact Karol Miller at mill2785@msu.edu.
- May 6 (7:00 – 8:30 PM) – Hybrid Midland Section ACS Board meeting, Rotunda Room, MSU St. Andrews, Midland (in person), and via a Microsoft Teams videoconference call connection at [May 2024 ACS Board Meeting Teams Link](#), Meeting ID: 939 576 147 515 1, Passcode: A52hAT.
- May 7 (9:00 AM – 5:00 PM) – 2024 Turner J. Alfrey Visiting Professor Lecture Series program, featuring Prof. Tobin J. Marks from Northwestern University. For more information, please see the accompanying article on pages 13-15. This is a free event, but pre-registration is required to help plan for the networking luncheon. Please register no later than Sunday, May 5, 2024, by clicking on [2024 Turner J. Alfrey Visiting Professorship Lecture Registration](#). For more information or any questions, please contact Karol Miller at mill2785@msu.edu.
- May 21 (6:00 – 8:00 PM) – Detroit Section ACS Younger Chemists Committee dinner/lecture event, *Companion Planting*. 6:00 PM – Dutch treat dinner at O’Mara’s Irish Restaurant, 2555 Twelve Mile Road, Berkley, MI. 7:00 PM – Lecture/presentation by Linda Simpson, Macomb County Master Gardening Association, MSU Extension. Please RSVP for dinner at <https://forms.gle/5XUMoWg46ordYfof7>.
- June 3 (7:00 – 8:30 PM) – Hybrid Midland Section ACS Board meeting, Rotunda Room, MSU St. Andrews, Midland (in person), and via a Microsoft Teams videoconference call connection at [June 2024 ACS Board Meeting Teams Link](#), Meeting ID: 939 576 147 515 1, Passcode: A52hAT.
- August 5 (7:00 – 8:30 PM) – Hybrid Midland Section ACS Board meeting, Rotunda Room, MSU St. Andrews, Midland (in person), and via a Microsoft Teams videoconference call connection at [August 2024 ACS Board Meeting Teams Link](#), Meeting ID: 939 576 147 515 1, Passcode: A52hAT.
- August 18-22, 2024 – ACS Fall 2024 National Meeting & Exposition, Denver, CO. This meeting is being planned as an in-person and virtual hybrid meeting. Meeting theme: *Elevating Chemistry*. For more information, please see [ACS Meetings & Expositions - American Chemical Society](#).
- September 9 (7:00 – 8:30 PM) – Hybrid Midland Section ACS Board meeting, Rotunda Room, MSU St. Andrews, Midland (in person), and via a Microsoft Teams videoconference call connection at [September 2024 ACS Board Meeting Teams Link](#), Meeting ID: 939 576 147 515 1, Passcode: A52hAT. **Please note: This Board meeting is being held on the second Monday of September, not the usual first Monday of most months, due to the Labor Day holiday.**
- October 7 (7:00 – 8:30 PM) – Hybrid Midland Section ACS Board meeting, Rotunda Room, MSU St. Andrews, Midland (in person), and via a Microsoft Teams videoconference call connection at [October 2024 ACS Board Meeting Teams Link](#), Meeting ID: 939 576 147 515 1, Passcode: A52hAT.
- November 4 (7:00 – 8:30 PM) – Hybrid Midland Section ACS Board meeting, Rotunda Room, MSU St. Andrews, Midland (in person), and via a Microsoft Teams videoconference call connection at [November 2024 ACS Board Meeting Teams Link](#), Meeting ID: 939 576 147 515 1, Passcode: A52hAT.
- December 2 (7:00 – 8:30 PM) – Hybrid Midland Section ACS Board meeting, Rotunda Room, MSU St. Andrews, Midland (in person), and via a Microsoft Teams videoconference call connection at [December 2024 ACS Board Meeting Teams Link](#), Meeting ID: 939 576 147 515 1, Passcode: A52hAT.

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