

THE MIDLAND CHEMIST

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Election of 2019 Officers and Board of the Midland Section ACS

Wendy Flory, 2018 Chair, Nominations & Elections Committee, Midland Section ACS

Electronic voting to elect the 2019 Officers and Board members of the Midland Section ACS is now open. Please visit the Midland Section ACS election site, through SurveyMonkey, by going to <https://www.surveymonkey.com/r/Q8CRM3K>. Have your ACS member number ready – you can find your member number on your ACS membership card, renewal invoice, or on your copy of *C&E News*.

Please note: You may only vote once and on your own behalf. By entering a member number and submitting a ballot, you are certifying under penalty of fraud that the input member number is your member number, and that you are voting freely and on your own behalf.

In order to vote, you must be a member or associate member in good standing with the ACS. Affiliate members are ineligible to vote according to National ACS bylaws.

Vote for the candidate of your choice, selecting one candidate for each Officer position, and up to three candidates for the Director positions. Click “Submit” on the last page of the bio profiles to cast your vote.

Ballots must be submitted electronically on or before November 15, 2018, 11:59 PM. There are no paper ballots this year. Please note that web/internet access is available at your local library.

If you have trouble finding your member number or encounter any other difficulty in voting, please contact Wendy Flory (2018 Chair of Nominations and Elections) at wflory@dow.com or Wenyi Huang (2018 Midland Section ACS Chair) at whuang1@dow.com.

The list of candidates running for the open Officer and Board positions is as follows:

Open Positions	Candidates
Chair-Elect (1-year term)	Mark Jones, Robbyn Prange
Secretary (1-year term)	Soham Dutta
Treasurer (1-year term)	Michelle Rivard
Chair, Nominations & Elections (1-year term)	Michelle Cummings
Alternate Councilor (3-year term)	Lauren Jackson
Directors (3 open positions, 3-year terms)	Dan Dermody, Lauren McCullough, Kshitish Patankar, Kevin Wier, Hunter Woodward

Please note: Voting ends on Thursday, November 15, 2018 at 11:59 PM EST.

Help Needed! Midland Section ACS Has Rewarding Outlets for Your Time and Talent

Wenyi Huang, Chair, and Gina Malczewski, Director and Chair, Long Range Planning Committee, Midland Section ACS

The former webmaster of the Midland Section of the ACS has recently stepped down from that position and we sincerely thank Greg Cushing for his years of good service in that role – especially for his help in extensively revamping the look and feel of the website in 2015-2016. We have the temporary assistance of Michael Malczewski, but are hoping to gather a small group of experts that can share long-term responsibility for specific website duties such as home page notifications, newsletter distribution, calendar and content updates, and construction (with help from CMU) of new website pages to feature historical information related to our local section’s centennial celebration in 2019.

In addition, we have long needed assistance with public relations and publicity. Do you enjoy writing press releases or would you like to learn? Do you have an interest in making connections with media outlets and schools to help establish coverage and notification for upcoming Midland Section ACS events? We sponsor a variety of excellent activities annually that could benefit from wider advertising. We already have historical lists of contacts that can be used to build upon.

Please contact Wenyi Huang (whuang1@dow.com) or Gina Malczewski (regianmalczewski@gmail.com) if you are interested in helping in any of the roles mentioned above. Also, please note that you do not necessarily need to be an ACS member to help. Thank you.

Call for Nominations for 2019 ACS Fellows Program

Diana Deese, Chair, Midland Section ACS Awards Committee

“... a fellow is a member of a group of learned people who work together as peers in the pursuit of mutual knowledge or practice ...” Wikipedia

As Chair of the Midland Section ACS Awards committee, I would like to make everyone aware of the 2019 ACS Fellows Program.

ACS Fellows Designation and Program Purpose

Although the “Fellow” designation has been adopted by many professional societies, the criteria for awarding this designation vary significantly from society to society. The ACS Fellows Program uniquely recognizes a different standard of achievement and service. Specifically, the Fellow of the American Chemical Society (ACSF) designation is awarded to a member who, in some capacity, has made exceptional contributions to the science or profession **and** has provided excellent volunteer service to the ACS community.

The purpose of the ACS Fellows Program, one component of the broader ACS Awards Program, is to recognize and honor members of the American Chemical Society for their outstanding achievements in and contributions to the science and the profession **and** for their equally exemplary service to the Society.

Nominees

1. Nominees for ACS Fellows must be current members (including retired and emeritus members) in good standing of the American Chemical Society.
2. Current members of the Fellows Selection Committee, Fellows Oversight Committee, ACS Board of Directors, and current ACS staff are not eligible to be nominees.
3. Former members or deceased members will not be considered as nominees for ACS Fellows. However, if a member dies after his/her name is submitted as a nominee and if that candidate is selected, he/she will be granted the Fellow designation posthumously.
4. Nominees, in past and present circumstances, are expected to employ and require good safety protocols and practices in their laboratories and/or work environments; uphold the highest ethical standards in their laboratories and/or work environments; and otherwise adhere to the Chemical Professional’s Code of Conduct. Nominators must address this in the online nomination form.
5. Nomination for other awards, including national, regional, or local ACS awards, does not disqualify a member from being nominated for ACS Fellow.

Nominators

1. Primary and secondary nominators must be current members (including retired and emeritus members) in good standing of the American Chemical Society.
2. Current members of the Fellows Selection Committee, Fellows Oversight Committee, ACS Board of Directors, and current ACS staff are not eligible to be primary or secondary nominators.
3. The primary nominator must be eligible to submit as an individual member or on behalf of a Committee, Local Section, or Technical Division. Refer to the Nomination Types section for specific eligibility requirements for primary nominators.
4. No more than one of the nominators (primary or secondary) may be from the same work group at the nominee’s primary place of employment. If the nominee is retired, only one nominator (primary or secondary) may be from the nominee’s last place of employment prior to retirement.
5. Refer to the Nomination Types section for guidelines about serving as a nominator for more than one nomination.

For more information, see <https://www.acs.org/content/acs/en/funding-and-awards/fellows.html>

The Midland Section of the ACS is allowed two (2) nominations for ACS Fellow per year. If you know of someone who fits the criteria, or if you would like to nominate yourself, and would like to work with me to put together a nomination package, please contact me at dkdeese@dow.com.

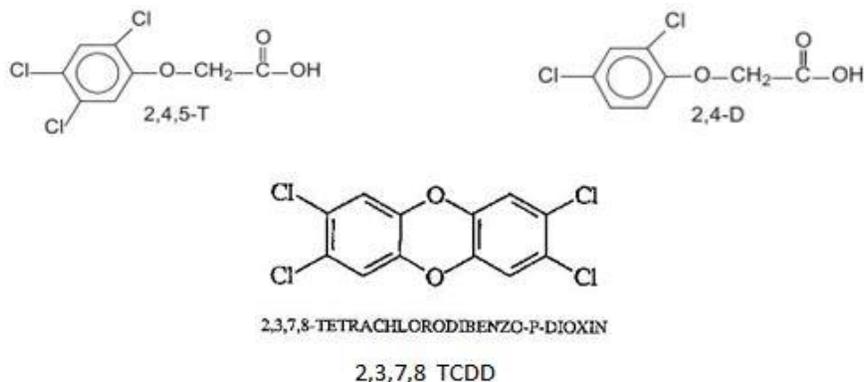
As the deadline for National ACS Fellow nomination submissions is around the first of April, I need to have packets completed and sent back to me by February 1, 2019. There are one thousand and one excuses that will pop up between now and February, so let's get started now!

Countdown to 2019: The Dioxin Dilemma

Gina Malczewski, Chair, 2019 Centennial Committee

In addition to celebrating the many accomplishments of Midland Section ACS members, some of the controversies involving our science community will also be addressed in an area of the centennial exhibit called "Unintended Consequences". Scientific innovation, like that in other disciplines, proceeds with good intentions and expected benefits. Sometimes the negatives associated with new materials or technologies are revealed only after long-term or inappropriate use/exposures, or even accidents.

Dioxins are natural combustion products as well as the byproducts of manufacturing some chlorinated organic compounds, most notably 2,4,5-trichlorophenoxyacetic acid (2,4,5-T) and 2,4-dichlorophenoxy acetic acid (2,4-D) which are effective herbicides for most broadleaf plants. They often contain very low levels of the most toxic chlorinated dioxin congener 2,3,7,8 TCDD.



Dow was one of over a dozen manufacturers of 2,4,5-T in the 1980s when Tittabawassee River sediments were found to be contaminated with it. Acute toxic effects in humans such as the skin condition called chloracne were known to Dow scientists, but concern about low-level contamination and dioxin in general peaked in our community in 1983. Dioxin had been in the news since an industrial accident in Seveso, Italy in 1976 released over 1 kg of dioxin over the adjacent community; the health effects were under careful study. Also, from 1976 to 1982 a waste disposal company in Times Beach, MO had been spraying dioxin-tainted waste mixed with motor oil over the town's roads to keep dust down; in 1983, the US EPA decided that all 2,000 residents had to be evacuated.

On April 13, 1983, a *Chemical Week* article indicted Dow for what it considered a lack of transparency related to dioxin contamination in Midland. A number of dramatic articles featuring residents who feared that their health problems may be caused by dioxin began to appear in the *Detroit Free Press* and *Bay Area Review*. The Environmental Congress of Mid-Michigan (ECOMM) was founded with about 30 members to seek accountability from Dow for what they believed were serious environmental issues and related health concerns. At that time, Dr. Susan Butts of Dow became concerned about the challenges that Midland residents faced as they tried to make sense of the limited and anecdotal information they had access to. Susan's colleagues at Dow seemed to believe they had good scientific data showing that health issues had

been sensationalized. “What I was hearing on the science side did not match what was being reported in the newspapers,” Susan said, “and it bothered me.”

Susan approached the local chapters of ACS, Sigma XI, and AIChE, and asked them to participate in developing a program to provide valid scientific information about dioxin health effects to Midlanders. All groups agreed and began to plan the best format to accomplish their goals. Publishing articles or having scientific experts lecture did not seem ideal for reaching diverse groups, so the organizers settled on a question-answer format involving experts and citizens. “We tried really hard to have a balanced panel of experts and a balanced panel of questioners,” Susan recalls, “but there was a lot of controversy.” The EPA refused to participate, the ECOMM group wanted its own expert (which the other scientists involved did not find credible), and there were also arguments over suggestions for non-Midland questioners. With a final technical panel composed of 6 experts from universities, government agencies, and the Dow Chemical Company and a 5-member questioner panel that included a local physician, the editor of the *Midland Daily News*, and representatives from the League of Women Voters, Midland Public Schools, and Delta College the program was offered at the Midland Center for the Arts on May 17, 1983 and was very successful – about 600 people attended.

According to Susan, “We did not want this to be a politically charged event. Controversy continued afterwards with coverage in the *Midland Daily News* ... that was met with many letters to the editor.” “The program was good and accomplished our goals to have credible scientific experts answer the questions of the people living in Midland ... I think it was helpful. Our local scientific societies responded positively in a manner that was accessible, not demeaning, to the residents who attended.”

After the program, the news cycle moved on, and the story faded. Dow has been cleaning up soil downstream from its plant on the Tittabawassee River on and off for about thirty years, punctuated by legal proceedings where the extent of its responsibility and the effects of the dioxin exposure continue to be debated. As a result of Susan’s successful effort to bring scientific information to the public, she became one of 12 Dow “Visible Scientists” tasked to improve communication with news media and consumers about health and safety issues. Many years later, she also managed the group in Dow’s Midland Analytical Lab where Dr. Les Lamparski and Dr. Terry Nestrick developed methods that took detection of dioxin species below the parts per quadrillion level. In August 2018, Susan was recognized as an ACS Fellow for her many contributions at the local and national levels.

The combination of 2,4,5-T and 2,4-D was used as a defoliant in Vietnam from 1962 to 1970 and labeled “Agent Orange” (which was contaminated with the more toxic material 2,3,7,8 TCDD). Studies of the “Ranch Hands” that administered it and the workers who made it have shown no increased mortality or incidences of cancer.^{1,2} Effects associated with the high levels of dioxin exposures in Seveso are much more significant,³ and their translation to other environmental exposures is problematic.

References

¹<https://www.sciencedirect.com/science/article/pii/0048969791900113>

Science of The Total Environment, Special Issue: Dioxins. Chemistry and Health Effects, edited by Walter M. Shaub. Human health effects: what the data indicate, by Michael Gough, Volume 104, Issues 1–2, 1 May 1991, Pages 129-158.

²<https://www.acsh.org/news/2016/06/01/doomsday-chemical-update-whatever-happened-to-dioxin>

American Council on Health and Science, 'Doomsday Chemical' Update: Whatever Happened to Dioxin?, by Gordon Gribble, June 1, 2016.

³<https://academic.oup.com/aje/article/153/11/1031/64538>

Health Effects of Dioxin Exposure: A 20-Year Mortality Study, by Pier Alberto Bertazzi, Dario Consonni Silvia Bachetti, Maurizia Rubagotti, Andrea Baccarelli Carlo Zocchetti, and Angela C. Pesatori, *American Journal of Epidemiology*, Volume 153, Issue 11, 1 June 2001, Pages 1031–1044.

Looking ahead, Agent Orange, napalm, and silicone breast implants are also expected to be addressed as part of the Midland Section ACS centennial exhibit in 2019.

50th ACS Central Regional Meeting – Save the Date, June 4-8, 2019

2019 ACS CENTRAL REGIONAL
CHEMISTRY
MEETING JUNE 4-8, 2019
ACSCERM2019.ORG THE H HOTEL • MIDLAND • MI

SAVE THE DATE

In celebration of the 50th Central Regional Meeting of ACS and 100th anniversary of the Midland ACS section
YOU ARE INVITED TO EXPLORE

Strong, Diverse, High Profile TECHNICAL PROGRAM:

- World-class event themed **MOLECULES TO MATERIALS**
- Internationally recognized plenary speakers
- Honoring local historical figures in chemistry

Stimulating, Focused, Effective EDUCATIONAL INITIATIVES:

- High-impact educational tools for teachers and students
- Special hands-on, interactive experiences

Unique, Exciting, Multi-Faceted COMMUNITY OUTREACH:

- Public participation in the learning experience:
CHEMISTRY IN EVERYDAY LIFE
- Nurturing interest in and promoting the value of science

Craig Hawker
UCSB

A.N. Sreeram
Dow

Melanie Sanford
University of Michigan

Tobin Marks
Northwestern

50TH CERM
MOLECULES TO MATERIALS
MIDLAND, MI JUNE 4-8, 2019

LEARN FROM THE BEST AND BRIGHTEST MINDS IN CHEMISTRY

Upcoming Dates, Events, and Other Updates

- November 5 (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 November 2018](#), meeting number/access code: 710 081 696, phone number: 989-633-1166.
- November 15 (6:00 – 7:30 PM) – MMAIChE sponsored lecture, *Hitting Pay Dirt: How Sustainable Farming Can Help Mitigate Climate Change*, presented by Rebecca Ladewski. Location and time: Grand Traverse Pie Company, 2600 North Saginaw Road, Midland, 6:00 PM dinner (optional), 6:30 PM presentation. Meeting times and locations are subject to change, so please check the [Mid-Michigan AIChE Events](#) website for updates to the schedule.
- November 15 (11:59 PM) – **Deadline for electronic voting to elect the 2019 Officers and Board members of the Midland Section ACS.** Please go to <https://www.surveymonkey.com/r/Q8CRM3K> to do this. If you have any questions, or encounter any other difficulty in voting, please contact Wendy Flory (2018 Chair of Nominations and Elections) at wcflorey@dow.com or Wenyi Huang (2018 Midland Section ACS Chair) at whuang1@dow.com.
- December 3 (7:00 – 8:00 PM) – Midland Section ACS Board meeting, MCFTA Board Room (in person), or via a WebEx conference call connection (TBD), phone number: 989-633-1166.
- January 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.
- February 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.
- March 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.
- April 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.
- April 24 (save the date, evening program) – Midland Section ACS Spring Awards Banquet, Great Hall Banquet & Convention Center, 5121 Bay City Road, Midland. For more information, contact Diana Deese, Midland Section ACS Awards Committee Chair, at dkdeese@dow.com or 989-636-9915.
- May 6 (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.
- June 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.
- June 4-8, 2019 (Save the Date) – 50th ACS Central Regional Meeting (2019 CERM), The H Hotel, Midland. Celebrating the 50th Central Regional Meeting of the ACS and the 100th anniversary of the Midland Section of the ACS. Abstract submission will open in December 2018. Please watch for more information at <https://acsacerm2019.org/>.

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