

# THE MIDLAND CHEMIST

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## Important Date Change – August Board Meeting Rescheduled for July 18

*Jaime Curtis-Fisk, Chair, Midland Section ACS*

The Midland Section ACS Board meeting previously scheduled for Monday, August 1, has been rescheduled for Monday, July 18, beginning at 7:00 PM. This board meeting will be held in the Board Room of the Midland Center for the Arts, our normal meeting venue. Please make a note of this date change and make the necessary changes on your personal planning calendars. Thank you.

## Sun, Fun, and Summer Science

*Gina Malczewski, Past-Chair and Outreach Committee, Midland Section ACS*

The Outreach team has already offered hands-on activities at two SWE summer camps, participated in an "Out of School Time" Network resource fair, and sponsored "Seuss Science" (Oobleck) at the MCFTA "Block Party", all since school let out. We have a number of other opportunities coming up (see page 2).

There are many ways to help! Training will be planned, as needed, and there is no obligation associated with putting your name on our distribution list. Please contact Gina Malczewski ([reginamalczewski@gmail.com](mailto:reginamalczewski@gmail.com)) or Michelle Rivard ([mlqshadow@yahoo.com](mailto:mlqshadow@yahoo.com)) for more information. Thank you.

<b>Date / Location / Event</b>	<b>Time Blocks</b>	<b>Content / Format</b>
7/16; Midland Tridge; Midland RiverDays Festival	10 AM – 4 PM (in shifts)	Walk-by "Wonders of Water" experiments
7/20; Bay City Central High School; 21st Century Community Learning Center Summer Camp	11 AM – 12 PM	Hands-on Carnival Science
7/23; Mid-Michigan Children's Museum, Saginaw	11 AM – 1 PM (two sessions)	Hands-on Carnival Science
8/3; Discovery Museum, Mount Pleasant	10-11 AM	Hands-on Sweet Science: Gum and Marshmallows
8/26; Discovery Museum, Mount Pleasant	10-11 AM	Hands-on "I Love Light": Making Kaleidoscopes
8/31; Bay City Central High School; Teacher In-service	10:15-11:30 AM and/or 12:45-2:00 PM (lunch included)	Density experiments, STEAM activities
All summer long; Creative 360, Midland; Garden and greenhouse activities	Varied, at your convenience	Weeding, watering, setting up vermiculture, hydroponics, and raised beds, harvesting

**Call for Nominations for 2017 Officer and Director Candidates**  
**Wenyi Huang, Chair, Nominations and Elections Committee, Midland Section ACS**

Here is your opportunity to become more involved in your local ACS section! We need candidates to run for the following positions for 2017:

- Chair-elect (1-year term)
- Secretary (1-year term)
- Treasurer (1-year term)
- Chair, Nominations and Elections Committee (1-year term)
- Councilor (3-year term)
- Alternate Councilor (3-year term)
- Directors (3 open positions, 3-year terms)

If you are interested in running for any of these positions, or if you know of someone who might be interested, please contact Wenyi Huang at [whuang1@dow.com](mailto:whuang1@dow.com) or 989-636-5789. If you have any questions regarding the responsibilities of any of the positions listed above, please contact the current officers or Wenyi Huang. You are also encouraged to visit the Midland Section ACS website at [www.midlandacs.org](http://www.midlandacs.org).

Nominations from the floor will be accepted at the July 18 Board meeting (MCFTA Board room, 7:00 PM). Please be aware that the nominees will have to accept their nomination prior to the announcement from the floor. If you are not motivated to run for a board position, there are still many other interesting ways in which

you can serve. Please contact the committee chairs or any board member for more information. The Committees are listed below.

Awards	Technology	Teacher Support
Chemistry Olympiad	Project SEED	Fall Scientific Meeting
Publicity	Finance	Program
Outreach/Kids and Chemistry	Midland Chemist	Silver Circle/Senior Chemists
Long Range Planning	Diversity and Multicultural Committee	Nominations and Elections
Historian	Women Chemists Committee	Membership
Younger Chemists Committee	SciFest/NCW	Sustainability/Environmental Affairs
MMTG	Scholarship Committee	

There are a variety of compelling reasons to take advantage of the chance to become involved as an officer, director, or committee leader/member for our award-winning Section – networking beyond your workplace, an opportunity to provide vision and voice to your local scientific community, and a chance to hone your interpersonal and leadership skills. Please consider getting involved with the Midland Section ACS.

## **Dow Completes Strategic Ownership Restructuring of Dow Corning Corporation**

*Vickie Langer, Co-Editor, The Midland Chemist*

Editor's note: The following article is reprinted here from the June 1, 2016 press release of The Dow Chemical Company (<http://www.dow.com/en-us/news>).

**MIDLAND, Mich. - June 1, 2016** - The Dow Chemical Company (NYSE: DOW) today announced the successful completion of the transaction to restructure the ownership of Dow Corning. Dow is now 100 percent owner of Dow Corning's silicones business, which had 2015 revenues of greater than \$4.5 billion and is expected to generate more than \$1 billion of annual EBITDA for Dow at full run-rate synergies. The transaction represents a post-synergy multiple of less than 6x EBITDA, highlighting the unique value creation to Dow shareholders from acquiring 50 percent of the silicones business while benefiting from 100 percent of the synergies.

"Dow Corning's world-leading silicone position brings a complementary new chemistry and technology to Dow, with it being a hand-in-glove, strategic fit for our material sciences portfolio and based on the additional \$1 billion of EBITDA to Dow's bottom line at full run-rate synergies, which at \$400 million is the minimum we expect to achieve, this transaction is highly accretive for our shareholders. As an owner of Dow Corning for more than seven decades, our deep understanding of the common and adjacent markets we serve will enable us to go narrower and deeper into high growth businesses where innovation is rewarded with value," said Andrew N. Liveris, Dow's chairman and chief executive officer. "By linking our two robust innovation engines, we will bring greater value to our shareholders and a wider range of differentiated, high value solutions to our customers."

A pioneer, and current day leader, in silicones, silicon-based technology, and innovation, Dow Corning was previously a 73-year 50:50 joint venture between Dow and Corning Incorporated. Dow and Corning will maintain their equal proportional equity interests in Hemlock Semiconductor Group, a polysilicon producer in which Dow Corning was the majority shareholder.

The highly synergistic transaction extends Dow's participation in its Consumer Solutions and Infrastructure Solutions segments, providing immediate integration into Dow's monomer and polymer value chains. It also enables Dow to provide complementary technology offerings in attractive industry segments where Dow is already a leader today, such as building and construction, consumer care, transportation, packaging, and electronics. Dow is positioned to capture a minimum of \$400 million in annual cost and growth synergies from the restructured ownership.

### **Business Structure and Governance**

Dow Corning will operate as a wholly owned subsidiary of Dow, and will be headquartered with Dow in Midland, Michigan.

As previously announced, Dow Vice Chairman and Chief Financial Officer Howard Ungerleider will serve as chairman of Dow Corning in addition to his current responsibilities. Dow Vice President Mauro Gregorio, who leads the Dow Corning integration team for Dow, will serve as chief executive officer of Dow Corning. Andy Tometich, a 27-year Dow Corning veteran, has been named business president of the silicones business.

"We are excited to welcome the Dow Corning team to the Dow family, and to deliver the tremendous growth potential of the combined company," said Ungerleider. "Dow Corning is a new element for growth for Dow. Bringing together these two industry-leading companies will drive exciting opportunities for our customers worldwide via more comprehensive product offerings, access to new technologies, and expanded R&D power to help quickly commercialize innovations."

### **Next Steps**

Dow's immediate focus is on seamlessly integrating Dow Corning into its existing operations and quickly capturing full growth and cost synergies. Already, leadership from both companies have worked together to define the organizational design for rapid post-close implementation. Dow expects the transaction to be accretive to operating earnings per share (EPS), cash flow from operations, and free cash flow in the first full year after transaction close.

"Dow Corning's silicones technology platform is a natural fit within Dow. Together we share 73 years as joint venture partners," said Gregorio. "And we also share a promising future of bringing new technologies and innovation to customers worldwide."

### **About Dow**

Dow (NYSE: DOW) combines the power of science and technology to passionately innovate what is essential to human progress. The Company is driving innovations that extract value from material, polymer, chemical, and biological science to help address many of the world's most challenging problems such as the need for clean water, clean energy generation and conservation, and increasing agricultural productivity. Dow's integrated, market-driven, industry-leading portfolio of specialty chemical, advanced materials, agrosiences, and plastics businesses delivers a broad range of technology-based products and solutions to customers in approximately 180 countries and in high-growth sectors such as packaging, electronics, water, coatings, and agriculture. In 2015, Dow had annual sales of nearly \$49 billion and employed approximately 49,500 people worldwide. The Company's more than 6,000 product families are manufactured at 179 sites in 35 countries across the globe. References to "Dow" or the "Company" mean The Dow Chemical Company and its consolidated subsidiaries unless otherwise expressly noted. More information about Dow can be found at [www.dow.com](http://www.dow.com).

*Note: The forward looking statements contained in this document involve risks and uncertainties that may affect Dow's operations, markets, products, services, prices and other factors as discussed in filings with the Securities and Exchange Commission ("SEC"). These risks and uncertainties include, but are not limited to, economic, competitive, legal, governmental and technological factors. Accordingly, there is no assurance that Dow's expectations will be realized. The Company assumes no obligation to provide revisions to any forward looking statements should circumstances change, except as otherwise required by securities and other applicable laws.*

## **Invitation to Chemists Without Borders Symposium and Mixer at the National ACS Meeting** **Ronda Grosse, Board Member, Chemists Without Borders**

Chemists Without Borders will be hosting an all-day symposium at the Fall ACS meeting in Philadelphia, *Mobilizing Chemistry Expertise to Solve Humanitarian Problems*, followed by a social hour. We have 10 excellent speakers lined up from academia, industry, government and non-profit organizations on Sunday, August 21, 2016. We will highlight efforts to apply chemistry to improve the lives of those across the globe. Presentation topics include clean water initiatives, expanding access to quality medicines, science education, and advancements in inexpensive analytical methodologies that can be readily applied in developing countries.



Directly following the presentations, we will have a mixer with refreshments. This will be a great opportunity for those interested in using chemistry to help others. We look forward to fruitful discussions regarding the far-reaching benefits of these efforts, and ideas toward addressing challenges associated with this type of humanitarian work. Please join us!

If you have any questions or suggestions, or want to contribute to this event, please contact Ronda Grosse at 989-496-3097 or [rondagrosse@chemistswithoutborders.org](mailto:rondagrosse@chemistswithoutborders.org). Thank you.

## **Call for Abstracts for 2016 Fall Scientific Meeting** **Michael Vagnini, Chair, 2016 Fall Scientific Meeting, Midland Section ACS**

Mark your calendars for the Midland Section's 72nd Fall Scientific Meeting! This year's event – with a theme of *Solving Mysteries Through Chemistry* – will be held on Saturday, October 22, at Saginaw Valley State University. For the first time in several years, there will be concurrent sessions of oral presentations, offering more local scientists and students the opportunity to present their work. The poster session is also being expanded, and the Mid-Michigan Technicians Group is hosting a networking reception following the main Fall Scientific Meeting event. Our keynote speaker will be Dr. Christopher S. Palenik, VP and Senior Research Microscopist at Microtrace.

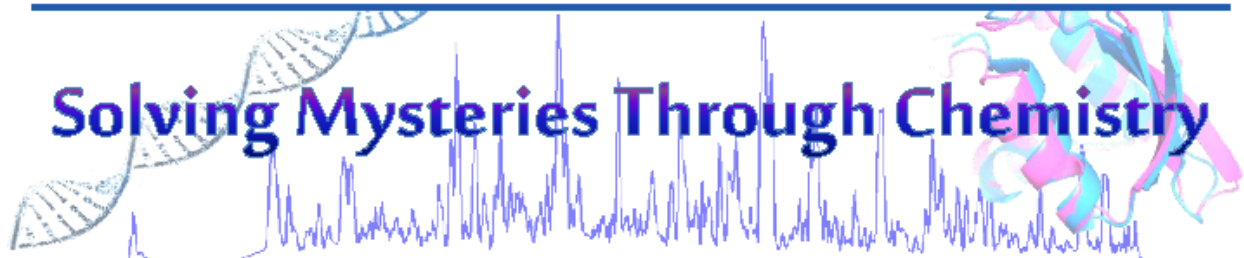
Registration details will be announced soon, but we are now accepting abstracts for oral and poster presentations! Please e-mail abstracts to Peter Bai ([PJBai@dow.com](mailto:PJBai@dow.com)), indicating your preference for an oral or poster presentation. There are a limited number of oral presentation time slots, but all abstracts will be considered for the poster session. The abstract submission deadline for industry professionals is August 13, and the deadline for academic researchers and students is September 17. Please contact Fall Scientific Meeting Chair Mike Vagnini ([MTVagnini@dow.com](mailto:MTVagnini@dow.com)) with any questions.



# ACS Fall Scientific Meeting

Saturday, October 22, 2016

Saginaw Valley State University, Curtiss Hall



## Solving Mysteries Through Chemistry

### ***New highlights for the 2016 meeting:***

**Expanded oral presentation sessions and a larger poster session!**

More opportunities for industry professionals, academic researchers, and students to present in both formats.

**Networking reception held with the Mid-Michigan Technicians Group!**

### **Call for abstracts!**

Deadline for industry professionals: August 13, 2016

Deadline for academic researchers and students: Sept. 17, 2016

E-mail [PJBai@dow.com](mailto:PJBai@dow.com), indicating oral or poster presentation.

For any questions, please contact the Chair at [MTVagnini@dow.com](mailto:MTVagnini@dow.com)!



**Keynote Speaker**  
**Dr. Christopher S. Palenik**  
*VP and Senior Research  
Microscopist at Microtrace*

### **Midland Section Receives ACS ChemLuminary Award Nominations for Outstanding 2015 Activities** *Gina Malczewski, Past Chair and Outreach Committee, Midland Section ACS*

The final nominations for ChemLuminary Awards have been announced by the National ACS. These nominations are based on activity descriptions given as part of our local section annual report for 2015. The following nominations represent many types of activities, serving different groups both within and outside of the Midland Section of the ACS:

- **Best Event or Activity Organized by, or Benefiting, the Applied Chemical Technology Professional Community:** MMTG Lunch and Learn Session on Emotional Intelligence
- **Outstanding Community Involvement in CCED:** Earth Day Expo and Passport Program
- **Outstanding Ongoing NCW Event:** Participation in GLBSEF and Education Day with the Saginaw Spirit
- **Outstanding Sustainability Activities:** ACS Garden and Greenhouse



- **Outstanding Leadership Development Program Award:** Strategic Planning Event
- **Best Activity or Program Stimulating Member Involvement:** Madeline Jacobs Visit to Midland
- **Most Innovative New Activity or Program:** Sci Pi Day Program at SVSU
- **Outstanding Performance by a Local Section (Medium Size)** – The Midland Section is one of 45 medium sized sections in the ACS
- **Most Innovative Activity in a Local Section for Senior Chemists:** Silver Circle Kick-Off Event
- **Outstanding High School Student Program Award:** Reaction Labs at Midland High School (Alka-Seltzer, Diet Coke, and Mentos)
- **Outstanding Kids and Chemistry Award:** For all of the various events sponsored by Kids and Chemistry in 2015

The winners of these awards will be recognized at the 252nd ACS National Meeting in Philadelphia, PA, on Tuesday, August 23, at the Pennsylvania Convention Center in Terrace Ballroom One. The presentations will include awards given by 19 different National ACS Committees. Last year we received three awards, including Outstanding Section in our size category. Our success would not be possible without the large group of dedicated and creative volunteers with which we are blessed within the Midland Section ACS. THANK YOU for all that you do!

### **New Feature! *The Midland Chemist* Trivia Challenge** ***Vickie Langer, Co-Editor, The Midland Chemist***

The Midland Section of the ACS is fast approaching its 100-year anniversary! On what date did the Midland Section receive its charter as a local section of the American Chemical Society? Hint: The answer can be found on the Midland Section website at <http://www.midlandacs.org/>.

Submit your answer to the editors at [newseditor@midlandacs.org](mailto:newseditor@midlandacs.org), using the e-mail Subject header "July Trivia Challenge Answer". A name will be drawn at random to receive an ACS Periodic Table pen, from among those submitting the correct answer. Please submit your trivia challenge answer no later than July 31.



Do you have a trivia question related to the Midland Section, the National ACS, or chemistry in general, that you would like to see printed in a future issue of *The Midland Chemist*? If you do, please submit your suggestions to the editors at [newseditor@midlandacs.org](mailto:newseditor@midlandacs.org). Thank you.

# Discounted Ride Tickets for Midland County Fair, August 14-20

Offered by the Mid-Michigan Technician Group



**Ride 'til you drop!**  
Discounted ride bands  
are good for a Single-day,  
All-day, Any-day of Fun!  
Just **\$16.00!**

**Discounted ride tickets go on sale starting July 11 and must be purchased before August 18**  
**(Regular price \$20-25 for a half day)**

For more information and to purchase discounted ride tickets, contact:  
Deb [dmendrick1@dow.com](mailto:dmendrick1@dow.com), Jeanette [jeanette.young@dowcorning.com](mailto:jeanette.young@dowcorning.com),  
or Michelle [michelle.rivard@dowcorning.com](mailto:michelle.rivard@dowcorning.com)

## Upcoming Dates, Events, and Other Updates

- July 16 (10:00 AM – 4:00 PM) – *Wonders of Water* walk-by experiments offered by the Outreach Team, conducted in shifts from 10 AM to 4 PM, part of the Midland RiverDays Festival experience in downtown Midland at the Tridge. For more information, or to volunteer to help, please contact Gina Malczewski ([reginamalczewski@gmail.com](mailto:reginamalczewski@gmail.com)) or Michelle Rivard ([mlqshadow@yahoo.com](mailto:mlqshadow@yahoo.com)).
- July 18 (7:00 – 9:00 PM) – ACS Board meeting, MCFTA Board Room (in person), or via a WebEx conference call connection at [Midland Section WebEx Board Meeting](#), phone number: 866-299-7945, participant code: 9837036#. **Please note: This meeting replaces the previously scheduled August 1 board meeting.**
- July 20 (11:00 AM – 12:00 PM) – Hands-on *Carnival Science* demos offered by the Outreach Team, 21st Century Community Learning Center Summer Camp, Bay City Central High School. For more information, or to volunteer to help, please contact Gina Malczewski ([reginamalczewski@gmail.com](mailto:reginamalczewski@gmail.com)) or Michelle Rivard ([mlqshadow@yahoo.com](mailto:mlqshadow@yahoo.com)).



- July 23 (11:00 AM – 1:00 PM) – Two back-to-back sessions of hands-on *Carnival Science* demos offered by the Outreach Team, Mid-Michigan Children’s Museum, Saginaw. For more information, or to volunteer to help, please contact Gina Malczewski ([reginamalczewski@gmail.com](mailto:reginamalczewski@gmail.com)) or Michelle Rivard ([mlqshadow@yahoo.com](mailto:mlqshadow@yahoo.com)).
- July 31 – Deadline to submit answers to the July *Midland Chemist* Trivia Challenge. Send your answer to [newseditor@midlandacs.org](mailto:newseditor@midlandacs.org), using the e-mail Subject header “July Trivia Challenge Answer” for a chance to win an ACS Periodic Table pen.
- August 3 (10:00 – 11:00 AM) – Hands-on *Sweet Science: Gum and Marshmallows* science demos offered by the Outreach Team, Discovery Museum, Mount Pleasant. For more information, or to volunteer to help, please contact Gina Malczewski ([reginamalczewski@gmail.com](mailto:reginamalczewski@gmail.com)) or Michelle Rivard ([mlqshadow@yahoo.com](mailto:mlqshadow@yahoo.com)).
- August 13 – Deadline for submission of abstracts from industry professionals for the 2016 Fall Scientific Meeting. Abstracts should be submitted by e-mail to [PJBai@dow.com](mailto:PJBai@dow.com), indicating your preference for an oral or a poster presentation. For any questions, please contact Mike Vagnini ([MTVagnini@dow.com](mailto:MTVagnini@dow.com)), Chair, 2016 Fall Scientific Meeting.
- August 21–25 – 252nd ACS National Meeting & Exposition, Philadelphia, PA. For more information, see <https://www.acs.org/content/acs/en/meetings/fall-2016.html>.
- August 21 – All-day symposium on the topic, *Mobilizing Chemistry Expertise to Solve Humanitarian Problems*, hosted by Chemists Without Borders, followed by a social mixer event. This symposium is being held in conjunction with the 252nd ACS National Meeting & Exposition, Philadelphia, PA. For more information, please contact Ronda Grosse at 989-496-3097 or [rondagrosse@chemistswithoutborders.org](mailto:rondagrosse@chemistswithoutborders.org).
- August 26 (10:00 – 11:00 AM) – Hands-on *I Love Light: Making Kaleidoscopes* science learning session offered by the Outreach Team, Discovery Museum, Mount Pleasant. For more information, or to volunteer to help, please contact Gina Malczewski ([reginamalczewski@gmail.com](mailto:reginamalczewski@gmail.com)) or Michelle Rivard ([mlqshadow@yahoo.com](mailto:mlqshadow@yahoo.com)).
- August 31 (10:15-11:30 AM and/or 12:45-2:00 PM, lunch included) – *Density experiments and STEAM activities* teacher in-service training event, Bay City Central High School. For more information, or to volunteer to help, please contact Gina Malczewski ([reginamalczewski@gmail.com](mailto:reginamalczewski@gmail.com)) or Michelle Rivard ([mlqshadow@yahoo.com](mailto:mlqshadow@yahoo.com)).
- September 12 (7:00 – 9:00 PM) – ACS Board meeting, MCFTA Board Room (in person), or via a WebEx conference call connection at [Midland Section WebEx Board Meeting](#), phone number: 866-299-7945, participant code: 9837036#.
- September 17 – Deadline for submission of abstracts from academic researchers and students for the 2016 Fall Scientific Meeting. Abstracts should be submitted by e-mail to [PJBai@dow.com](mailto:PJBai@dow.com), indicating your preference for an oral or a poster presentation. For any questions, please contact Mike Vagnini ([MTVagnini@dow.com](mailto:MTVagnini@dow.com)), Chair, 2016 Fall Scientific Meeting.
- October 3 (7:00 – 9:00 PM) – ACS Board meeting, MCFTA Board Room (in person), or via a WebEx conference call connection at [Midland Section WebEx Board Meeting](#), phone number: 866-299-7945, participant code: 9837036#.
- October 22 (8:30 AM – 3:15 PM) – 2016 Midland Section ACS Fall Scientific Meeting, Curtiss Hall, Saginaw Valley State University. For more information, or any questions, please contact Mike Vagnini ([MTVagnini@dow.com](mailto:MTVagnini@dow.com)), Chair, 2016 Fall Scientific Meeting.
- November 7 (7:00 – 9:00 PM) – ACS Board meeting, MCFTA Board Room (in person), or via a WebEx conference call connection at [Midland Section WebEx Board Meeting](#), phone number: 866-299-7945, participant code: 9837036#.

- December 5 (7:00 – 9:00 PM) – ACS Board meeting, MCFTA Board Room (in person), or via a WebEx conference call connection at [Midland Section WebEx Board Meeting](#), phone number: 866-299-7945, participant code: 9837036#.

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