



Local News

Dow Corning scientist embraces his new role with the American Chemical Society

Print Page



Daily News/JOHN TULLY Dr. Tom Lane, a senior scientist at Dow Corning Corp., has been with the company for 35 years. A resident of Midland, Lane was recently nominated President of the American Chemical Society and took office at the beginning of the year.

By Cheryl Wade
of the Daily News

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The campaign was hard -- he even kept the M&M's around to remember it -- but Dow Corning Corp. senior scientist Tom Lane now has become a spokesperson for just about all things chemical and can spend more of his time touting the education he so values.

Lane, who's been a member of the American Chemical Society for 37 years, starting as a student, now is its president.

"I don't know that anyone actually plans for something like this," he said. Then, talking about his years of networking and his desire to give back to his field because so many people extended their helping hands to him, he said, "the more you do, the more people find to have you help with."

When he moved to Midland 35 years ago, he got involved with the local section, serving as its chairperson twice. It wasn't too long before people started asking him to serve on national committees. Then, in January 2007, he got a phone call in his car: Would he consider becoming a candidate for president? He said he was shocked and surprised, and had to check with his family and with work. He received a green light in both cases.

In March 2007 at a national meeting in Chicago, Lane and three other candidates stood before a group of 500 ACS representatives. Each candidate delivered a three-minute speech. In front of everyone, the group voted for two candidates: Lane and Howard Peters, an attorney and chemist who'd once worked for Dow and had moved to California after living in Midland.

"It's scary in many respects," Lane said. "To be the president, you're the public face of chemistry, in the world. There's a certain charm and excitement about being that public face."

The campaign was frenzied and full of paraphernalia, just like any other campaign. Lane had buttons and even personalized M&Ms that read "vote for Tom Lane." Peters stumped with 10 pounds of chocolate that he raffled and passed around.

Six weeks of balloting began in November 2007. Near the end of November, Lane learned he would be the new president, starting in January 2009. He invited President Barack Obama to his Jan. 27 installation in Washington, D.C., but the President didn't make it there.

Formed in 1876, the ACS is the largest scientific society in the world, with 160,000 members and a reach around the globe. Some 60 percent of members come from industry, 40 percent from academics and government. The ACS spends time on Capitol Hill advocating for research spending, works on ways to help scientists do their jobs better and -- a big one for Lane -- advocates education. It has 2,000 full-time employees, 600 of them at its Washington, D.C. headquarters and 1,4009 in Columbus, Ohio in its abstracts and publications divisions.

Even as president-elect last year, 60-70 percent of his time was spent on ACS duties and he logged 100,000 domestic miles on Northwest Airlines.

The ACS' three main goals are education, outreach and outcomes, or measuring the effect of what the organization tries to accomplish, Lane said. He wants students and teachers to understand that becoming a scientist is something a person actually can do. And whether a problem involves energy, health or food, the ACS understands that a solution will need a multidisciplinary approach. For example, the ACS and the British Society of Chemical Industry assembled a free-form group of scientists that chose clean water as the global imperative needing attention. Scientists from around the world now share their problems and solutions as well as a database on the topic.

Lane believes mathematics is the language of problem solving and that chemistry is a good field of study for young people who want to help their fellow humans.

"Chemistry is the study of matter and the changes it undergoes," Lane said. It's about "everything you can taste, touch, smell."

Now is the best time in history to be a chemist, Lane said.

"I think the problems that are facing society are huge. ... Yes, we're in a difficult economic slump at the moment but we're going to pull out of it. To truly meet the needs of the people of this planet is going to require chemistry."

MDIV
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Warner to speak on green chemistry at MCFTA on Oct. 20

Dr. John C. Warner, one of the founders of green chemistry and co-author of the book *Green Chemistry: Theory and Practice*, will speak at 7 p.m. Oct. 20 at the Midland Center for the Arts.

Warner is president, chief technology officer and chairman of the board of the Warner Babcock Institute for Green Chemistry and serves on the board of directors of the Green Chemistry Institute in Washington, D.C. He also serves on the Science Advisory Board of Strategic Environmental Research and Development Program, the Department of Defense's environmental science and technology program.

Warner will talk about his dedication to advancing the development of environmentally benign and practical sustainable technological solutions for society. His presentation will highlight how green chemistry can deliver innovative solutions, and how each of us can facilitate its wide-spread adoption. An interactive question and answer session will follow Warner's presentation.

The public is invited to attend the event.



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Great Lakes Bay

YOUR NEWS FROM SAGINAW, BAY AND MIDLAND COUNTIES

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THE SAGINAW NEWS

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The right Chemistry



Bay-Arenac Community High School science teacher Bob Moyer, left, has teamed with John Blizzard, owner of Quadsil Inc. in Midland, to bring a special chemistry program to the alternative education school in Essexville.

Alternative education program bubbling

ANDREW DODSON

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There's a special chemistry brewing at Bay-Arenac Community High School, and the result could help alternative education schools across the country.

The Essexville alternative high school is developing a chemistry curriculum specifically designed for its students. The program is getting some

national buzz and is catching on at schools in Midland and Saginaw counties, as well.

It started when John Blizzard, owner of the science research firm Quadsil Inc. in Midland, decided he wanted to expand chemistry education in schools. Someone told him to look at alternative education programs, which teach at-risk students.

With the state recently mandating chemistry credits for graduating seniors, Bliz-

zard knew the 150-student Bay-Arenac Community High School needed help.

"Our problem was that the traditional chemistry program doesn't work in a nontraditional setting," Blizzard said.

He partnered with Dow Corning Corp., the Bay Area Community Foundation and the Kantzler Foundation a year and a half ago to finance a new chemistry program.

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Today, with \$400,000 worth of donations, the program is expanding to two other alternative high schools — Windover High School in Midland and Omni Adult and Alternative Education School in Carrollton.

Three teachers, one from each school, sacrificed their summers to develop a curriculum that fit the needs of an alternative high school.

"Those three teachers are the real heroes," Blizzard said. "They gave up 18 months of their lives to make sure this program met all state mandates."

As the program took shape, Blizzard and Bay-Arenac Superintendent Ryan Donlan thought the uniquely crafted curriculum could be used in similar schools across the country. The American Chemical Society felt the same way.

"Last year was just a pilot program to see if it was aligned with state goals," Blizzard said. "But that pilot program has turned into a true chemistry education."

The American Chemical Society now is considering publishing the curriculum for others to use. Society President Thomas Lane, scientist emeritus for Dow Corning, visited Bay-Arenac Community High to give it a National Salute for Excellence Award, calling the curriculum a vanguard program.

"Our students come in at different levels, and chemistry is an upper-level course," said Victoria Behe at the Omni school. "We fill in the cracks in their education foundation and then build on the chemistry part."

Now in its second year at Bay-Arenac Community High, science teacher Robert Moyer said the program still has some kinks, but its initial success is being built upon.

"We had 81 students earn credit last year," Moyer said.

"We are gearing this directly for our kids. That's how we know it'll work."

Even though the curriculum is tailored to alternative education, students are held to the same state mandates as traditional education programs.

"We're taking those standards into a form that's easy for them to understand," Behe said. "All students need a chemistry background."

Nancy Vossen, science teacher at Windover High, said the curriculum ensures all students receive that background.

"Our underlying thought as the three of us worked together was chemistry for all," said Vossen, who has 35 students in her class this year. "We want to make chemistry accessible to all students."

Students' interest in chemistry and pride in the program are growing, as well.

Kayla Irmen, a senior at Bay-Arenac Community High this year, said she is interested in forensic chemistry.

"The program is hard at times," Irmen said. "But it's fun as long as you have that 'get it done' attitude."

Only six weeks into school, the students are still learning the basics of chemistry and focusing on safety in the lab. Fully equipped labs will begin after Thanksgiving.

Members from the American Chemical Society, including Blizzard, will come into the classroom for guest instruction occasionally, explaining how chemistry plays a role in their respected careers.

Now, students deemed at-risk have a new challenge that could point to a future in science.

"This is a one-of-a-kind program," Donlan said. "We have budding chemists that are going to become lifelong scientists."

Science will be brought to life at SciFest

By TONY LASCARI

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An event Saturday will bring science to life for people of all ages at Unity Hall inside the Dow Events Center in Saginaw.

The 14th annual SciFest will take place to mark National Chemistry Week, which took place last week.

Delta College Chemistry Professor Joan Sabourin, co-chair of the event, said SciFest has moved from Delta to the home of the Saginaw Spirit hockey team, which will play a game after the event.

"It's hands-on science activities for participants of all ages," Sabourin said. "It's all meant to be interactive."

Groups from the community will set up activities based on the National Chemistry Week theme "Chemistry — It's Elemental."

"All of life, our entire universe, is made up of elements, and it's not something to be afraid of," Sabourin said. "It's a part of our everyday life. We're composed of elements."

Some of the displays include a light detecting what elements are in the sun, the chemical elements in track and field, the effects of

static electricity, a smoke cannon and rocket balloons, nickel in jewelry, silicon in solar panels, glow-stick necklaces, extracting iron from cereal and preserving elements of nature for the future.

"We want participants to be actively involved in science and to do it at as young an age as possible to realize it's interesting and fun," Sabourin said.

SciFest is free anytime between 3:30 and 6:45 p.m. The Spirit game costs \$6.50 for students of any age and \$8.50 for adults. People can call Tracie at (989) 496-1434 or e-mail Dave Stickle

at dstick44@chartermi.net to get tickets. People also can e-mail Sabourin at jmsabour@delta.edu for more information.

Each Spirit team member has been assigned an element based on his jersey number, and presentations will be made about the elements as part of the game.

Sabourin said people can come to the game in costumes that are related to elements. She said with a 112th element, Copernicium, added this summer, there are plenty of options.

"There will be a parade on the ice and prizes will be handed out

to people with the best element-related costume," she said.

Gina Malczewski, co-chair of the Kids and Chemistry Committee of the American Chemical Society, said some middle school students are eligible for free tickets to the game through projects they're working on in school. She said the event brings together science, sports and people.

"(The ACS) will have one or two tables with demonstrations and activities for people of all ages to show how prevalent elements are in the things we do day-to-day," she said.



Photo provided

Attending the Windover ribbon-cutting, from left, are Angelo Cassar, Kevin Campbell, Marsha Stamas, Vicki Behe, Nancy Vossen, Greg Armstead, John Blizzard, Jan McGuire, Bruce Lovelace, Joe Sepesy and AJ Haney.

MDN 10/28/09

Windover lab dedicated

A ribbon-cutting ceremony capped an evening of celebration at Windover High School last week.

The school celebrated a new chemistry lab, classroom and curriculum that have been developed over the past two years, thanks to commitments from several organizations and people.

The American Chemical Society (ACS), the Dow Corning Foundation and the Midland Area Community Foundation together donated more than \$100,000 to the alternative high school in order to give Windover students access to a Michigan Merit Curriculum aligned chemistry program.

A representative from each organization, Angelo Cassar, 2009 Midland Section ACS Chair, Kevin Campbell, Dow Corning Foundation, and Jan McGuire, president and CEO of the Midland Area Community Foundation, spoke of their commitment to Windover students and their pride in being involved with this project.

John Blizzard, a long-

time ACS member, was offered praise as the person who masterminded the project and assisted in its completion.

Speaking for the Windover board of directors, Bruce Lovelace, a board member in his 15th year said, "We are sincerely grateful for the support of the American Chemical Society, Dow Corning and the Midland Area Community Foundation in the development and implementation of this science lab. This is the final realization of a dream that the board has carried for many years. It is gratifying to see such wide community support for the Windover program and its students."

This project was collaboration between three area alternative schools to create curriculum and chemistry programs for their students. The following science teachers worked together for the past two years to accomplish this goal: Nancy Vossen from Windover, Bob Moyer from Bay-Arenac Community High School in Bay City,

and Vicki Behe from Omni Adult and Alternative Education in Carrollton. Each school was supported by the ACS and their local foundations.

"The goal was chemistry for all," Vossen said. "Last year, 34 Windover students earned chemistry credit. Between the three schools, 81 students earned chemistry credit." All the coursework is aligned with the Michigan Merit Curriculum and is geared toward alternative education students. Each of the three schools awarded chemistry credit for the first time as a result of this project.

Windover also received a Salute to Excellence Award from National American Chemical Society President Dr. Thomas Lane. Before the ribbon cutting ceremony, Cassar presented the award to Windover. Only eight such awards were given out nationwide in 2009.

"Of all the events and projects that our section is involved in, it is this project which is my favorite," Cassar said. "This school

provides another opportunity for these young adults to learn and prosper. I am proud that through John Blizzard, we are involved with this worthwhile project."

In June 2009, Vossen, Behe and Moyer each received a Salute to Excellence Award from ACS for their work on the project.

During the evening, the audience of near 40 heard from a panel of Windover students. The students credited the smaller school and the opportunity for more individual attention to their success.

Trevor Ring, a junior this year, pointed out, "People think a lot of different things about Windover — some good, some bad. All the good things are true and none of the bad things are true."

Mitch Wood, a senior, said the most important thing he has learned at Windover is that, "everyone is equal and you should give someone a chance before you judge them."

Windover has been chartered by the Midland County ESA since 1994.

11/08/09

Midland Daily News | Local

Donations create chemistry lab, curriculum for alternative students

BY STEPHANIE WIRTZ

for the Daily News

As the State of Michigan decides to cut school funding, the Midland community decides to step up. The American Chemical Society (ACS), the Dow Corning Foundation and the Midland Area Community Foundation have provided more than \$100,000 in funding for Windover High School and other alternative schools to provide a new chemistry lab and develop a chemistry curriculum for alternative students.

John Blizzard, a member of the American Chemistry Society, said "Mainstream chemistry curriculum does not work in a non-traditional high school setting. Three science teachers from different schools worked together to develop a program called 'Chemistry for All.' An ultimate goal of this project is to create a program that can be replicated by other schools. That goal has been accomplished."

Bruce Lovelace, a 15-year board member for Windover High School stated that "This is the final realization of a dream that the Board has carried for many years. It is so gratifying to see such wide community support for the Windover program and its students."

During a dedication ceremony at Windover, several students, board members and foundation staff were present to hear about the project success. Also on the agenda was the acceptance of the Salute to Excellence award from the American Chemical Society. Only eight awards were given out nationally this year.

Jan McGuire, president and CEO of the Midland Area Community Foundation, said she was "pleased to partner with the American Chemical Society and the Dow Corning Foundation to complete this project that will have such a positive impact on alternative education and the students at Windover."

For years, foundations have worked together to provide funding for different educational opportunities. Kevin Campbell of the Dow Corning Foundation added, "We have a long history working with our local ACS chapter to support science education. Dow Corning is proud to have participated in the upgrade of the lab at Windover High School. Science education is fundamental to developing well rounded young adults and is a life-long skill."

In addition to foundation representatives and school board members exhibiting their appreciation, several students from Windover also addressed the crowd of about 40 people. The students talked about how grateful they were for a school like Windover to help them complete their education. A.J. Haney, a Windover sophomore, said he was "just really glad to be getting an education. I'm glad I understand what the teachers are teaching me."