

## Sci-Fest:

The story of a successful community education program, p. 3



From chemistry experiments to leapin' lizards, Sci-Fest offers families a whole new vision of science and the world around them. Find out how this popular community program got started and why it works.

# THE MIDLAND CHEMIST

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Please submit all articles and photographs to the editor, Ann Birch. Instructions for article submission are on the Midland Section web site, as is contact information for other staff members. Authors can also contact Ann directly with any questions.

Neither *The Midland Chemist*, nor the Midland Section, nor the American Chemical Society assumes any responsibility for the statements and opinions advanced by contributors of or to *The Midland Chemist*.

Cover photography by Wendy Mallory. Contributors to this issue: Chitra Subramaniam, Dow Corning Corporation; Philip Squattrito, Central Michigan University; Ann Birch, Editech; Janet Smith, Dow Corning Corporation; Connie Murphy, The Dow Chemical Company

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## To the Readers of *The Midland Chemist*

**T**he *Midland Chemist* has a new staff and a new look, but we owe much of where we are today to Randy Hill and Jane Thompson. Randy and Jane edited *The Midland Chemist* and provided layout design beginning in the early 1990s. For many years, they handled the monumental task of getting articles and announcements submitted, edited, designed, and published. They made major strides in moving the publication to a completely electronic format and encouraging contributors to also move in that direction. We would like to thank them for their many hours of volunteer work and the standards they have set for *The Midland Chemist*.

To introduce the current volunteer staff of *The Midland Chemist*:

- Vicki Sible joined the staff several years ago to help coordinate the printing and mailing tasks. We are very glad that she has agreed to stay on in that role. Vicki is an analytical specialist at Dow Corning Corporation.
- Dave Baker has joined *The Midland Chemist* as a writer. Dave is an assistant professor at Delta College.
- Kerry Pacholke will be coordinating the advertising for the publication. Kerry is a lab manager at The Dow Chemical Company.
- Scott Reeves will be coordinating photography for *The Midland Chemist*. Scott is a research associate at Michigan Molecular Institute.
- James Birch will be doing layout design. Jim is a chemical engineer and technical writer and editor with Editech.
- Ann Birch (that's me) is the editor. I am a chemist and technical writer and editor with Editech.

We welcome contributions and suggestions from not only our members, but from anyone interested in the promotion of science and science education. Our web page at [http://www.cst.cmich.edu/org/acs\\_midsec/](http://www.cst.cmich.edu/org/acs_midsec/) gives details on how to submit articles and general suggestions. If you have questions, please give me a call (517-832-7485) or send an e-mail ([ann.birch@editech-mi.com](mailto:ann.birch@editech-mi.com)) and I will be happy to talk to you. We're looking forward to a great year at *The Midland Chemist*!

—Ann Birch

## Help Needed!

**T**he Midland Section would like to get the Chemistry Explorer Post going again. If you're interested in being an advisor for this group, contact Wendell Dilling, 517-631-1621, [wendell.l.dilling@cmich.edu](mailto:wendell.l.dilling@cmich.edu).

## Important Dates on the ACS Midland Section Calendar

- February 28 Professor David Lubman, CMU Seminar Series, Dow 175, 4:00 p.m., reception preceding in Dow 264 (Dil Peiris, 517-774-3993)
- March 6 Midland Section board meeting, Delta College Midland Center, room 12, 7:00 p.m.
- March 24 Deadline for nominations for 2000 Science Teaching and Education Volunteer Awards
- March 29 Copy deadline, April issue of *The Midland Chemist*
- April 3 Professor Michael Morris, "Raman Imaging: The New Look in Bones and Other Materials," CMU Seminar Series, Dow 175, 4:00 p.m., reception preceding in Dow 264 (Mary Tecklenburg, 517-774-3078)
- April 3 Midland Section board meeting, Delta College Midland Center, room 12, 7:00 p.m.
- April 7 Deadline for dinner reservations for Spring Science Education Recognition Dinner
- April 10 Professor Valerie Sheares, "New Materials via Nickel-Catalyzed Coupling Polymerization," CMU Seminar Series, Dow 175, 4:00 p.m., reception preceding in Dow 264 (Bob Howell, 517-774-3582)
- April 17 Professor William Risen, "Transparent Monolithic Transition Metal-containing Silica-Chitosan Polymer Aerogels: Formation, Structure, and Chemistry," CMU Seminar Series, Dow 175, 4:00 p.m., reception preceding in Dow 264 (SAACS, Phil Squattrito, 517-774-4407)
- April 19 Spring Science Education Recognition Dinner, Dow Chemical Cafeteria, 6:00–9:00 p.m.

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**AMERICAN CHEMICAL SOCIETY**

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*Chairman's Column***Welcome to Y2K!**

**W**elcome to the 2000 version of the Midland Section of the American Chemical Society. I'm looking forward to leading the Section in continuing our strong programs, reactivating some dormant programs, and starting a couple of new activities that will make the Section more valuable to members, their employers, and our communities.

I decided not to title my columns "Message from the Chair" as Tom Guarr, 1999 Chair of the Western Michigan Section, did in his local section publication, *Reports & Retorts*. Tom wrote, "Gee, the title of this article sounds like I am writing from Death Row just before they throw the switch." But I do concur with Tom's comments thanking previous officers and volunteers for their service to the Section. The Midland Section has a core of dedicated volunteers, and I thank them for their service. This year we are making a concerted effort to broaden this base of volunteers so the load is not too heavy for anyone.

The leadership of the Section for 2000 consists of a mixture of experienced and relatively new members, all of whom are listed elsewhere in this issue. The distribution of leadership affiliations is: Dow Corning Corporation 14, Central Michigan University 5, The Dow Chemical Company 4, Delta College 2, Saginaw Valley State University 2, Editech 1, Michigan Molecular Institute 1, and 6 retirees from Delta College, Dow Chemical, Dow Corning, and MMI.

George Eastland, Chair-Elect for 2000, served as Section Chair in 1987. He also will be Program Chair in 2000. Tina Leaym, Secretary, is a newcomer to the Section Officer ranks, while Peter Qian as Treasurer, Mike Owen as Alternate Councilor, and Steve Keinath as Chair of Nominations and Elections Committee are serving a second year in their respective positions.

Long-term Councilors Bob Howell and Gretchen Kohl continue in their offices while Peter Lo, who has held several other positions, will serve his first year as Alternate Councilor. Gretchen will also chair the National Chemistry Week Committee. Past-Chair Deb Bergstrom will



Wendell Dilling, Chair  
ACS Midland Section

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***"... I'm looking forward to great things happening in 2000."***

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chair the Long Range Planning Committee.

Continuing Directors include Ann Birch, Vicky Cobb, Joan Sabourin, Vicki Sible, and Phil Squattrito. Ann, an outstanding Secretary for two years, edited the Annual Report, greatly expanded the Section web site, served as webmaster, set up and maintained the computerized membership database, and is now Editor of *The Midland Chemist*. Phil will also chair the Awards Committee for the second year. New Directors for 2000 include Connie Murphy, Art Smith, Steve Snow, and Dave Stickles. Connie and Dave also continue to chair the Membership Growth and Retention and Sci-Fest Committees, respectively.

Committee chairs continuing in their positions include Pat Dreyfuss, Corporate Agent; John Oleson, Environmental Affairs; Eldon Graham, Technical Society Interface; John Blizzard, Project Science Literacy; Peggy Hill, Project SEED; and Brian Murdoch, County Fair Booth. New committee chairs include Lang Xu, Web Site; Kermit Kwan, Publicity/Public Relations; Walt Rupprecht, Government Affairs; Sarah Snow, Careers and Professional Relations; Fred Vance, Fall Scientific Meeting; and Ed Benson, Chemistry Olympiad. Kermit, Walt, and Sarah also served on their respective committees in 1999. Janet Smith is Chair of the Mid-Michigan Technicians Group, an affiliate organization of the Midland Section.

Two new committees for 2000 are Industry Relations and Minority Affairs, chaired by Jerry DeVrieze and Lin Dorman, respectively. We hope to revive the Chemistry Explorer Post, which has been inactive for several years, and are looking for a volunteer Post Advisor.

The ACS Midland Section has a dedicated team of leaders, and I'm looking forward to great things happening in 2000.

*Wendell L. Dilling*



**IMPACT**  
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Formerly MMI

- **Competitive Analysis**
- **Unknown Identification**
- **Additive Analysis**
- **Taste & Odor Analysis**
- **Color Body Identification**

Contact: Andrew Wood • 517-832-5555 ext 563  
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# Sci-Fest: The Story of a Successful Community Education Program

By Ann Birch

Scientists have struggled for many years to find ways to bring science to the public. How can we help others understand science well enough so they do not fear it? How do we combat “junk science”? How do we give the public the tools they need to make rational decisions on science issues? The answer, of course, is education. And education is what Sci-Fest is all about: showing kids and their parents that science isn't just for scientists. Science is the entire world around us—from the water we drink, to the switch that turns the lights on, to the plastic incubators that protect tiny new-borns.

Sci-Fest is a community education program sponsored by the Midland Section of the ACS as part of National Chemistry Week. Here's a list of the exhibitors from last year's Sci-



*These youngsters are thoroughly absorbed in learning knot-tying.*

*Photo: Wendy Mallory*

Fest, held on November 20 at Delta College, just to give an idea of the breadth of science concepts offered:

- American Institute of Chemical Engineers
- Alpha Omega Telescopes
- BaySail
- Chemistry of Brewing
- ACS/MMTG Colors of Chemistry
- NCW Clowning Around with Chemistry
- Delta College Biology Division
- Delta College Science Division
- Delta College/Bangor Middle School Solar Electric Vehicles
- Properties of Plastic Materials
- Glass Blowing
- Dr. Slime's Magic of Chemistry Show
- Hall of Ideas
- Partnership for the Saginaw Bay Watershed

- Saginaw Zoo
- Saginaw Valley State University Science Club
- Saginaw Valley Blood Program
- Sunset Astronomical Society

All of the exhibits had hands-on activities for kids (and their parents) and interesting things to see and learn about. The Saginaw Zoo brought a boa constrictor, a three-eyed lizard, a ferret, and a huge tarantula. While many crowded around to get a closer look, some kept their distance and went

on to more inanimate exhibits. The Saginaw Valley Blood Program did blood typing for about 450 people. ACS volunteers in “Clowning Around with Chemistry” offered a demonstration showing how much water superabsorbent polymer can hold (the polymer used in disposable diapers). They also demonstrated the concept of polymers



*The best part about Sci-Fest is the lack of “don’t touch” signs.*  
*Photo: Wendy Mallory*

formed from monomers using plastic clowns with interlocking hands. The publications *WonderScience* and *ChemMatters* were available for visitors to take with them.

The Sci-Fest concept began in the late 1980s with “chemistry magic shows” presented as part of the Midland Section Fall Scientific Meeting by volunteers such as Marvin Tegen, John Blizzard, Pete Bonk, and others. Later, a few organizations from the area were invited to demonstrate their areas of expertise. In the early 1990s, Gretchen Kohl, Janel Davidson, Robin Hickerson, and Mike Paquette expanded the program further, inviting elementary school students to a separate event offered at the end of the Fall Scientific Meeting. According to Mike, this event was designed to bring a broader audience into the “fun” part of the FSM, making it into a “community science festival.” The name “Sci-Fest” was coined about this time. “Being involved with bringing Sci-Fest to the community was fun,” says Mike. “But, in addition, I feel it is one of the most significant accomplishments of the Section.”

Last year, over 2000 people attended Sci-Fest '99, with each exhibit enjoying a good-sized crowd of 10 to 20 people around each booth. Dave



Stickles has led the Sci-Fest program for several years, and he says that the key to a successful program is interested and willing volunteers. Besides Dave, here's a list of some of the folks who helped make Sci-Fest '99 a success:

- Joan Sabourin—coordinating Delta College facilities
- John Blizzard—new exhibits
- Connie Murphy, Janet Smith, Debbie Milbrandt—contacting area schools, distributing flyers
- Brian Murdoch, Stephanie Anderson, Wendy Mallory, Tina Leaym—Santa Parade
- Wendy Mallory, Sue Perz—pouring glue
- Sue Perz, Stephanie Anderson, Joan Sabourin—working food table
- Debbie Milbrandt, Janet Smith—set-up
- John Kennan, Liza Helmirsch, Bill Schultz Jr., Vicki Sible, Steve Smith—Colors of Chemistry table
- Brian Murdoch—contacting volunteers
- Karol Childs—Hall of Ideas booth
- Dick Van Effen—Sunset Astronomical Society booth
- Cynthia Peck, Dave Baker—Delta College booth
- Marv Tegen, Joan McMahon—NCW booth



*Kids of all ages learn how to “clown around” with superabsorbent polymers. Photo: Joan Sabourin*



*The array of colors before her seem to overwhelm this young chromatography “researcher.” Photo: Joan Sabourin*

## Meet D-o-c-t-o-r Slime!

By Ann Birch

Any Sci-Fest fan can spot Dr. Slime from a mile away. It's not just the lime-green hair, it's the wicked grin and a trunkful of science fun for kids. Dr. Slime performs chemistry "magic" that shows kids just how fun and exciting science can be.

In real life, Dr. Slime is Mike Garlick, laboratory manager for the Chemistry Department at Delta College. Mike has been doing chemistry shows for 8 years, beginning rather inadvertently when 100 kids were waiting for a chemistry show demonstrator who didn't show up on time. Mike stepped in and has been doing it ever since. According to Mike,

there are several reasons for doing the shows: "I love doing it," says Mike. "The joy and fascination on the kids' faces makes it so worthwhile." Mike goes on to explain that he loved science and science fiction as a kid, mostly because he had some great teachers who unlocked the world of science for him. One of his objectives is to do the same for this generation.

Some of the experiments Mike does as Dr. Slime include Slime (simple polymers), Goblin's Brew (transition metal catalyzed decomposition reaction), Disembodied Hand (acid/base gas/vacuum reaction), Fun with Static Electricity, Sound Waves and En-

ergy, and States of Matter. His newest show is Comets, Planets, and Meteorites (emission spectra). He is currently searching for representative fossils for a show under development on extinct forms of life and how



*Dr. Slime in the midst of an experiment. The black and white photo doesn't do justice to his green hair!*

*Photo: Wendy Mallory*

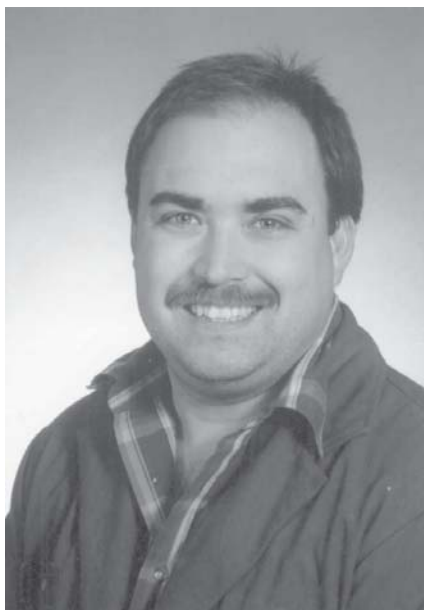
chemicals form the basis for all life.

“I want to hammer down the walls between kids and science,” says Mike. “Get them away from the idea that science is ‘high brow,’ ‘too hard,’ or ‘boring.’ Let them know that science is something they can understand and enjoy.”

Mike says his greatest inspiration (and toughest critics) is his own kids. They give him many ideas for new segments for the show, and he also gleans ideas from masters like Nye, Shkhashiri, and Blackstone. Sometimes he gets flashes of inspiration of his own, like his Glow in the Dark Bubbles (a terrible failure, Mike says, but then again, maybe a great idea before its time).

Mike graduated from Central Michigan University with a B.S. in biology, chemistry, and education. He attended the Michigan State Police Academy to study hazardous materials handling as a technician and also received training at Colorado State University in small-scale chemistry instruction. In his current job at Delta, Mike handles all chemicals used in the Chemistry Department and oversees the set-up and production of lab activities. He also works as an independent contractor doing environmental monitoring. His newest venture is school in-service programs that show how to reduce chemical consumption and wastes during school laboratory activities.

Mike lives in Saginaw with his wife Betty and their three children, Chelsae, Jacob, and Ian. You can contact Mike at [slime@alpha.delta.edu](mailto:slime@alpha.delta.edu) or visit his web page at <http://www.delta.edu/~slime>.



*The real Dr. Slime (aka Mike Garlick).*

*Photo: Delta College*

## New Midland Section Contacts

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Spotlight on a New Midland Section Member

## Outreach Important to Fred Vance

By Connie Murphy

**F**red Vance obtained his B.S. in chemistry from Hope College in December 1993, doing undergraduate research with Prof. Michael E. Silver focused on synthesis of novel organometallic compounds for catalysis. Between college and graduate school, he spent six months in an internship at Parke Davis Pharmaceuticals in Holland, MI, working in analytical R & D. He obtained his Ph.D. at Northwestern University in physical/inorganic chemistry in May 1999 working with Prof. Joseph T. Hupp on the nonlinear optical properties of inorganic compounds and nanoscale materials.



In June 1999 Fred started at The Dow Chemical Company in the Research Assignments Program. His first assignment was in Analytical Sciences working on ultra-trace level metal analysis by ICP-MS. His current assignment is in the Materials Science discipline of Materials Research & Synthesis, and his project is focused on the fracture mechanics of block copolymers. Shortly he will join the Interfacial Science discipline working on porous inorganic materials.

Fred has been happily married for 4½ years to Kristin, a counselor at Delta College. In their free time, they enjoy eating out, watching good movies, and traveling to see friends and family in various parts of Michigan and the Midwest. Fred enjoys a host of other hobbies, which seem to change as often as the seasons. He's also a sports fan, especially football and Red Wings hockey. He plays an occasional game of racquetball and is on a Midland city league volleyball team.

**Why did you decide**

### Welcome New Members!

Connie Murphy

Midland Section Membership Chair

Welcome to the following people who have either recently joined the American Chemical Society or transferred into the Midland Section:

- Katherine L. Austin
- Donald V. Eldred
- Frederick M. Falkenhagen
- Geoff Gardner
- Eric J. Hill
- Jeannie M. Homles
- Eunseok Jang
- Shaow B. Lin
- Lisa M. Massaro
- Russell J. Milan
- Jerzy Mierzwa
- Maria M. Ngo
- Rene L. Saint Pierre



**to join the ACS and what do you expect from the local section?** “I joined ACS in 1994 when I started graduate school. My primary incentive was to stay abreast of cutting edge chemical research, but I have also gained a great deal about employment in general from C&EN. I’m not sure what I want from our local ACS section (apart from the continuation of events like the recent local scientific meeting) because I have never been involved in a local section before. I am looking forward to a chance to get involved in any way I can, and I would especially enjoy participating in some sort of community outreach.”

## Regional Meeting Just Around the Corner

**P**lan now to attend the 32nd Central Regional Meeting (CMACS 2000), to be held May 16–19 at the Northern Kentucky Convention Center in Covington (across the Ohio River from Cincinnati). The Cincinnati Section is host.

The advance registration form can be accessed from the meeting web site ([www.cmacs2000.org](http://www.cmacs2000.org)) after February 27 or from the meeting program in the March 27 issue of *C&E News*. There will be more information about the meeting in the March issue of *The Midland Chemist*.

# FOR HOW MANY MINUTES . . .

. . . would you feel comfortable discussing with your neighbor or friends the global chemical industry initiative known as *Responsible Care*?

If you are a member of the chemical industry, we urge you to learn about this initiative which calls on chemical companies to demonstrate their commitment to improve all aspects of performance which relate to the protection of health, safety and the environment.



Responsible Care®  
A Public Commitment



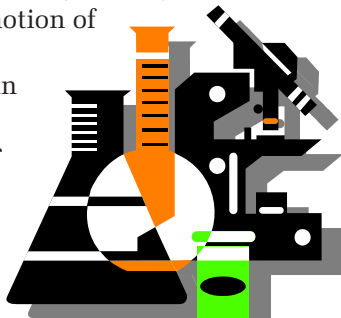
## Attention All Technicians

By Janet M. Smith

I would like to introduce myself as the 2000 Chair of Mid Michigan Technician Group (MMTG). I've been involved with MMTG for several years and currently work at Dow Corning as a technician. Obviously, I've left out a lot of detail, but enough about me.

MMTG is about you, the technician. It's about professionalism. It's about networking beyond your own company. It's about recognizing and addressing needs within the technician community (locally and nationally). It's about public outreach and the promotion of science to the public.

What does MMTG do? MMTG sponsors an annual award for the Outstanding Chemical Technician Student at area colleges that offer Chem Tech degrees. In conjunction with the local ACS section, members of MMTG have organized Sci-Fest and the Midland fair booth for the past several years. We sponsor lunch seminars featuring special guests, such as the Michigan State Police Crime lab, organize workshops, hold panel discussions on topics of interest to technicians, participate in public outreach events, and offer social gatherings. MMTG offers an avenue to get involved in the ACS at a national level (yes, technicians can travel too), and many of our members have done that.



During the next 12 months as chair, I would like to shift the focus of MMTG, concentrating on building the value of MMTG by addressing needs within the technician community. Considering the size of the organization, MMTG has excelled in public outreach in the few large projects that we have taken on in the last few years. Unfortunately, we have neglected our own ranks in pursuing these large projects. Many of the technicians hired within the local area in the last 5 years have never heard of us! I recognize that as a wake-up call.

How does one join or get more information? Meetings are held monthly from 11:30 a.m.–1:00 p.m. for planning. All are welcome and don't worry, we burned our copy of *Robert's Rules of Order* long ago. Dates and locations are listed on the web site (<http://members.aol.com/mmtgwebpgs/MMTGWebPage.html>), most being held the first Wednesday of the month at the Dow cafeteria (47 Bldg.). Contact Janet Smith at 517-496-6860 or by e-mail at [janet.smith@dowcorning.com](mailto:janet.smith@dowcorning.com). Also, coming events will be announced in *The Midland Chemist* if there is sufficient lead time. I look forward to serving you as chair in 2000.

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## Call for Nominations for 2000 Science Teaching and Education Volunteer Awards

*By Phil Squatrito*

**E**ach year the Midland Section of the American Chemical Society presents awards to recognize outstanding achievement in teaching the chemical sciences. Nominations for the 2000 awards are invited. Awards are presented for Outstanding Achievement in the following areas:

- Elementary Level Science Education
- Middle Level Science Education
- High School Chemistry Teaching
- College Chemistry Teaching

Candidates for these awards must be educators at schools in the five-county geographical area of the Midland Section: Bay, Gratiot, Isabella, Midland, and Saginaw Counties.

A Science Education Volunteer of the Year award is also presented to an individual who makes a substantial contribution to science learning in the Midland Section through voluntary efforts.

Recipients of all awards will be selected by the Awards Committee. Nominators should write a letter indicating the award and describing the attributes of the candidate. Supporting letters from students, colleagues, supervisors, and community leaders are strongly encouraged. The deadline for nominations is March 24, 2000. Electronic or fax submissions are acceptable. All submissions must be accompanied by the name, position, address, and phone number of the nominator. Award recipients as well as high school and college student award recipients and Saginaw Science Fair and Chemistry Olympiad winners will be honored at the 2000 Science Education Recognition Dinner on April 19, 2000.

The Awards Committee greatly appreciates the efforts involved in nominating someone and thanks you for helping to recognize deserving educators in our Section. *Parents: Does your child have a great science teacher? If so, consider nominating him or her and pass this information along to that teacher's principal or section head.*

Please submit nominations to:

Philip J. Squatrito  
Chair, ACS Awards Committee  
Department of Chemistry  
Central Michigan University  
Mt. Pleasant MI 48859  
Phone: 517-774-4407; Fax: 517-774-3883  
Email: p.squatrito@cmich.edu

## Spring Science Education Recognition Dinner

Wednesday, April 19, 2000

6:00 p.m. to 9:00 p.m.

47 Building Cafeteria, The Dow Chemical Company  
Midland, Michigan

Program:	6:00 p.m.	Mixer
	6:30 p.m.	Buffet Dinner
	7:30 p.m.	Program
	8:00 p.m.	Awards Presentations

Teachers and students will be recognized for their outstanding achievements in science education.

The cost of the dinner is \$14.00 per person and includes appetizers, dinner, dessert and beverage.

Please respond using the form below. Your dinner reservation request must be received by April 7, 2000. A map of the event location will be in the March issue of *The Midland Chemist*. This event is sponsored by the Midland Section of the American Chemical Society and underwritten by grants from The Dow Chemical Company and Dow Corning Corporation. For further information, contact Phil Squatrito at 517-774-4407 or [p.squatrito@cmich.edu](mailto:p.squatrito@cmich.edu).

*To reserve a place at the 2000 Spring Science Education Recognition Dinner, return this form with payment by **April 7, 2000** to Phil Squatrito, Department of Chemistry, Central Michigan University, Mt. Pleasant MI 48859.*

Name(s): \_\_\_\_\_

Affiliation: \_\_\_\_\_

Address: \_\_\_\_\_

Phone/Email: \_\_\_\_\_ ACS member? Y N

Enclose payment of \$14.00 per person. Checks should be payable to "Midland Section ACS."

## Views of a Physicist Congressman

*By Chitra Subramaniam*

**T**he United States must maintain and improve its preeminent position in science and technology in order to advance the understanding of the universe and all it contains, and to improve the lives, health and freedoms of all peoples." This was the opening statement of Congressman Vernon Ehlers (R-MI) as he addressed a gathering of the Midland Section of the American Chemical Society on November 22, 1999. In 1997, Rep. Ehlers was assigned the task of leading the development of a long-range science and technology policy for the nation. The recommendations of the policy can be viewed at

[http://www.house.gov/science/science\\_policy\\_study.htm](http://www.house.gov/science/science_policy_study.htm)

In his address, Rep. Ehlers pointed out that there is a need for the American public to understand science and its practice. As an example, he indicated that it is socially acceptable and even fashionable for nonscientists to declare that they have no clue about aspects of science, or it is past their level of understanding. However, it is not acceptable for a scientist to be less than proficient in language skills. Rep. Ehlers stressed that in order to improve this situation, our nation needs better science and math education as well as socially responsible and politically aware scientists so that there is better communication between the technologically driven com-



*Rep. Vernon Ehlers (R-MI), Stacy Daniels, Karol Childs, and Deb Bergstrom (from left clockwise) during the dinner buffet at the Garden Room of the Holiday Inn of Midland.*

*Photo: Dick Van Effen*

munity and the American public. He recommended the principle of teaching science by “doing science and not by teaching about science.”

Rep. Ehlers also highlighted the need for improving the standards of teacher training and requirements as well as attracting better teachers by offering higher salaries. This is especially important because we depend on our education system for producing better scientists and engineers as well as well-informed voters and consumers. His policy recommends that the federal government facilitate and encourage advances in fundamental research for the continued success of scientific enterprise in this country. This will ensure that the well of discovery does not stagnate or dry up.

Rep. Ehlers received his undergraduate degree in physics and went on to pursue a Ph.D. in nuclear physics from the University of California at Berkeley. He taught physics at Calvin College and was later appointed as the chairman of the Physics Department. After election to the Michigan House and Senate, Ehlers went on to represent Michigan’s Third District in the U.S. Congress. He was the first research physicist in the U.S. Congress and is currently serving his third term. He is also the Vice Chairman of the House Committee on Science and serves on the Transportation and Infrastructure, Education and Workforce, and House Administration committees.



## WHAT ON EARTH IS DOW DOING?

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- In Australia, more than 46,000 native trees planted by Dow are being irrigated with treated water from our manufacturing plant, significantly reducing the plant's waste water discharge while improving the environment.
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- In Western Europe, Dow is working with an international waste management group in the collection, separation and recycling of plastics from post-consumer commercial waste sources.

These environmental efforts are part of Dow's commitment to Responsible Care — an initiative from the Chemical Manufacturers Association. For more information about Dow and Responsible Care, write:

The Dow Chemical Company  
Corporate Communications Dept.  
300 Dow Center  
Midland, MI 48674





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## To the Readers of *The Midland Chemist*

**T**he *Midland Chemist* has a new staff and a new look, but we owe much of where we are today to Randy Hill and Jane Thompson. Randy and Jane edited *The Midland Chemist* and provided layout design beginning in the early 1990s. For many years, they handled the monumental task of getting articles and announcements submitted, edited, designed, and published. They made major strides in moving the publication to a completely electronic format and encouraging contributors to also move in that direction. We would like to thank them for their many hours of volunteer work and the standards they have set for *The Midland Chemist*.

To introduce the current volunteer staff of *The Midland Chemist*:

- Vicki Sible joined the staff several years ago to help coordinate the printing and mailing tasks. We are very glad that she has agreed to stay on in that role. Vicki is an analytical specialist at Dow Corning Corporation.
- Dave Baker has joined *The Midland Chemist* as a writer. Dave is an assistant professor at Delta College.
- Kerry Pacholke will be coordinating the advertising for the publication. Kerry is a lab manager at The Dow Chemical Company.
- Scott Reeves will be coordinating photography for *The Midland Chemist*. Scott is a research associate at Michigan Molecular Institute.
- James Birch will be doing layout design. Jim is a chemical engineer and technical writer and editor with Editech.
- Ann Birch (that's me) is the editor. I am a chemist and technical writer and editor with Editech.

We welcome contributions and suggestions from not only our members, but from anyone interested in the promotion of science and science education. Our web page at [http://www.cst.cmich.edu/org/acs\\_midsec/](http://www.cst.cmich.edu/org/acs_midsec/) gives details on how to submit articles and general suggestions. If you have questions, please give me a call (517-832-7485) or send an e-mail ([ann.birch@editech-mi.com](mailto:ann.birch@editech-mi.com)) and I will be happy to talk to you. We're looking forward to a great year at *The Midland Chemist*!

—Ann Birch

## Help Needed!

**T**he Midland Section would like to get the Chemistry Explorer Post going again. If you're interested in being an advisor for this group, contact Wendell Dilling, 517-631-1621, [wendell.l.dilling@cmich.edu](mailto:wendell.l.dilling@cmich.edu).

## Important Dates on the ACS Midland Section Calendar

- February 28 Professor David Lubman, CMU Seminar Series, Dow 175, 4:00 p.m., reception preceding in Dow 264 (Dil Peiris, 517-774-3993)
- March 6 Midland Section board meeting, Delta College Midland Center, room 12, 7:00 p.m.
- March 24 Deadline for nominations for 2000 Science Teaching and Education Volunteer Awards
- March 29 Copy deadline, April issue of *The Midland Chemist*
- April 3 Professor Michael Morris, "Raman Imaging: The New Look in Bones and Other Materials," CMU Seminar Series, Dow 175, 4:00 p.m., reception preceding in Dow 264 (Mary Tecklenburg, 517-774-3078)
- April 3 Midland Section board meeting, Delta College Midland Center, room 12, 7:00 p.m.
- April 7 Deadline for dinner reservations for Spring Science Education Recognition Dinner
- April 10 Professor Valerie Sheares, "New Materials via Nickel-Catalyzed Coupling Polymerization," CMU Seminar Series, Dow 175, 4:00 p.m., reception preceding in Dow 264 (Bob Howell, 517-774-3582)
- April 17 Professor William Risen, "Transparent Monolithic Transition Metal-containing Silica-Chitosan Polymer Aerogels: Formation, Structure, and Chemistry," CMU Seminar Series, Dow 175, 4:00 p.m., reception preceding in Dow 264 (SAACS, Phil Squatrito, 517-774-4407)
- April 19 Spring Science Education Recognition Dinner, Dow Chemical Cafeteria, 6:00–9:00 p.m.

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### AMERICAN CHEMICAL SOCIETY

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