

THE MIDLAND CHEMIST

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From the Chair

The "Not so Lazy" Days of Summer...

As we all look forward to warm days ahead, I wish you all great vacations and lots of quality family time in our great Michigan outdoors. There has been (and still is) a lot on the calendar, though, so a few thoughts for the beach:

We welcome with excitement and gratitude our new treasurer, Haoyu Zhang of Dow Chemical, who was able to jump in when Robert Freeman needed to resign for personal reasons. Past treasurers Darren Hansen and Janet Smith also rose to the occasion, and Haoyu has had the benefit of experienced tutelage while assuming his new role. We wish Robert well, and thank him for his excellent service. As a result of great cooperation, we are enjoying a relatively smooth transition.

The Awards Committee led by Diana Deese did an excellent job on the Annual Awards Banquet, held this year at the Great Hall. While we are very pleased to have presented awards to many deserving local teachers and students, as well as Section volunteers, we did not have an awardee for our "Outstanding Achievement and Promotion of the Chemical Sciences" honor, as has been the case in three of the last four years.

There are certainly deserving individuals in our midst, and the nomination process is not difficult (a resume and nomination letters are all that's required; samples can be provided), so please begin to consider qualified individuals for 2013! We are concerned that the award will be discontinued if this trend persists. A similar situation exists with the Thomas Lane Award for Science Education.

The Section nominated Drs. Petar Dvornic and Patrick Smith for the "ACS Fellow" honor; awardees will be recognized at the Fall National ACS meeting.

We are a little more than 50% shy of my 5% member increase goal for 2012. Please contact young chemists

in your area and encourage them to consider joining; being able to articulate your reasons for belonging is helpful! Networking and interactions are certainly considered to be a plus, especially within a very active section like ours, winner of the 2010 "Best Section" award in our category (2011 has not been awarded yet). More members also mean a larger section allotment from National, which keeps our many programs going—including those (of special interest to me) involving community outreach.

We are already considering our election slate for November. Please read Shawn Chen's article (page 7) and consider your own talents as well as those you know who might just need to be asked. We have been working on an updated Section Handbook, and have revised many sections relative to duties and expectations. Even though this process is not yet complete and updates are not available on the website at this point, we have better explanations of roles to share with potential candidates and our current Board will be happy to talk to those potentially interested.

As part of our Handbook revision process, we are also considering the future of *The Midland Chemist*. If you value this service, and/or the newsletters, please express your feelings to any of the Board. We know members are busy and inundated with mail, so your input is important!

For the tradition of excellence to continue relative to our communications, we also need a new editor for the MC, and help with the newsletters. We owe great thanks to Amy Tesolin-Gee and Steve Keinath for their longstanding (and often valiant) efforts to get these publications out; we also have opportunities for those interested in



Gina Malczewski

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Calendar for June/July

June 1	Pre-registration begins for Fireworks Science Café
June 4	Registration due for TAVP Course
June 6	RSVP for TAVP Dinner Mtg.
June 7	ACS Board Meeting, 7pm
June 11	TAVP Course Begins
June 13	TAVP Dinner Meeting
June 18	Publicity/Communications Sub-Team Meeting
June 25	Fireworks Science Café

NO JULY BOARD MEETING

Click on the Calendar button at <http://www.midlandacs.org> for more details.

managing the web site.

We expect to have our "ACS Day at the Fair" as usual, but can—as always—use help. Please contact Michelle Rivard if you wish to volunteer. Stay tuned for details.

Remember, June's meeting is on the 7th. WE WILL HAVE NO MEETING IN JULY, TWO IN AUGUST (beginning and end), AND NONE IN SEPTEMBER (due to Labor Day and a short month). Please refer to the schedule in this issue (page 9) for details!

One final comment: please support the TAVP program (details in this issue) with your attendance. We are privileged to have access to this high quality series of lectures, and the Section also contributes financially each year. If technical programming is important to you, take advantage of this great opportunity!

Gina Malczewski

Rusty Govitz, MMI Communications Director

MMI's 2012 Turner Alfrey Visiting Professor Announced

Michigan Molecular Institute will once again play host to one of the brightest minds in polymer research as its Turner Alfrey Visiting Professor program welcomes Professor Kathryn Uhrich, who will lecture at MMI June 11–15.



Uhrich is a Professor of Chemistry and Chemical Biology and Dean of Mathematical and Physical Sciences at Rutgers University. She will give a course entitled Designing Polymers for Biomaterials Applications. Uhrich will present to local scientists and other interested parties June 11 through 15 from 3 to 6 p.m. at the MMI Lecture Hall, 1910 West St. Andrews in Midland.

Uhrich's arrival marks the 38th such visit by a distinguished polymer researcher in the visiting professor program, established in 1973 and renamed in 1981 as a living memorial to the late Dr. Turner Alfrey, Jr. Each

year, a leading scientist is invited to teach a short course, visit sponsoring organizations and deliver additional research seminars.

"The Turner Alfrey Visiting Professorship benefits many people," said MMI Senior Research Scientist and Associate Professor Steve Keinath, who also serves as course registrar. "It provides a point of connection between local scientists and engineers with the world leaders of the polymer science field, offering a chance for true face-to-face give-and-take with some of the brightest minds working today. The visiting professorship is a connection MMI is proud to make in Dr. Alfrey's name; he meant a great deal to polymer research and education, locally and nationally."

Uhrich will spend part of her time around mid-Michigan visiting some of the TAVP program's co-sponsors, which include The Dow Chemical Company, Dow Corning Corporation, Central Michigan University, Michigan State University, Saginaw Valley State University, the Mid-Michigan Section of the Society of Plastics Engineers and the Midland Section of the American Chemical Society.

Registration for the MMI course is required and due no later than June 4. Interested parties can contact MMI at 989.832.5555, ext. 571 or registrar@mmi.org. Additionally, participants can register online at www.mmi.org. There is no course fee for auditors of organizations co-sponsoring the TAVP program. The regular course fee is \$400.

Michigan Molecular Institute, founded in Midland, Mich. in 1971, is a non-profit organization dedicated to polymer research and education. MMI offers world-class research and development across many areas, including photonics, membranes, specialty coatings, delivery systems and sensors. Its core capabilities include polymer synthesis and design; polymer characterization; polymer science; materials science; polymer formulation and processing; heterogeneous catalysis; silicon chemistry; and biobased materials. For more information, visit www.mmi.org. Contact: Dr. Steven E. Keinath - 989.832.5555, ext. 588 or keinath@mmi.org

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Rusty Govitz, MMI Communications Director

TAVP Dinner Meeting to be Held June 13 at Northwood

Joint Technical Society Dinner Meeting

POLYASPIRIN: FROM INVENTION TO INNOVATION

Professor Kathryn Uhrich

Professor of Chemistry and Chemical Biology and Dean of Mathematical and Physical Sciences, Rutgers University, Piscataway, NJ 08854

Date

Wednesday, June 13, 2012

Time

Social 6:30 p.m.; Dinner 7:00 p.m.
Program 8:00 p.m.

Location

NADA Center, Northwood University,
4000 Whiting Drive, Midland, MI
48640, Phone: (989) 837-4277

Cost

\$25 for SPE and ACS members (or members of other professional societies such as AIChE, ASM, etc.) and guests, \$15 for students.

RSVP by June 6

Reservations can be made via phone, fax, or e-mail to Molly Warren-Haycock at MMI. Reservations must be received no later than Wednesday, June 6, 2012. Phone: (989) 832-5555, ext. 554, Fax: (989) 832-5560, or E-mail: warren-haycock@mmi.org. Note: Mid-Michigan SPE will charge individuals who make reservations and do not attend the meeting.

Abstract

Aspirin is a drug that is broadly used by millions of Americans to treat aching joints, headaches, and prevent heart attacks. The oldest version of aspirin is

the poultice prescribed by Hippocrates in the fifth century BC obtained from the bark of willow trees and myrtle.

The latest version of aspirin is PolyAspirin, a plastic version of aspirin that was first synthesized by an undergraduate chemistry student in Prof. Uhrich's lab at Rutgers University. Since that discovery, several other polymer (or plastic) versions of drugs have been invented, which led to the formation of Polymerix Corporation.

Polymerix works with pharmaceutical and medical device companies to enhance their products. For example, PolyAspirin-coated cardiovascular stents may be more beneficial to patients because the drug is located exactly where it needs to be—on the stent—rather than in the stomach.

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2012 Turner Alfrey Visiting Professor Course Information**DESIGNING POLYMERS FOR BIOMATERIALS APPLICATIONS**

Professor Kathryn Uhrich

June 11–15, 2012
Monday–Friday, 3:00–6:00 p.m.Lecture Hall
Michigan Molecular Institute
1910 West St. Andrews Road
Midland, MI 48640

Fee: There is no fee for auditors if they belong to organizations that are financial sponsors of the Turner Alfrey Visiting Professor program: The Dow Chemical Company, Dow Corning Corporation, Central Michigan Univer-

sity, Michigan State University, Saginaw Valley State University, Mid-Michigan Section of the SPE, and Midland Section of the ACS. For all others, a course fee of \$400 will be required at registration. All participants, however, must pre-register.

Registration: Pre-registration is required no less than one week in advance with the Registrar by visiting <http://www.mmi.org/tavp2012.html>, emailing registrar@mmi.org, or by calling (989) 832-5555.

Course Description: This course is designed for those with a working knowledge of polymers. The underlying rationale of the course is to provide a sound understanding of the key principles involved in designing polymer-based materials for applications ranging from pharmaceutical and tissue engineered products, to cosmetics, personal care products and foods.

Lecture Topics Outline:**Introduction**

- Types of Materials
- Synthesis Methods and Potential Issues
- Polymer Characterization: typical; biomaterials-specific; surface

Biological Aspects

- Inflammation and Infection
- Role of Scale: cells vs. receptors

Drug Release Mechanisms

- Chemical vs. Mechanical
- Topical Delivery: biological issues and barriers; approaches; applications
- Drug Delivery: cardiovascular
- Targeted Drug Delivery: passive (RES) vs. active (Ab)

Nanotechnology

- Amphiphiles: micelles; liposomes
- Gene Delivery
- Inorganic/organic: QDs

Polymer Therapeutics

- Amphiphilic Macromolecules
- Bioactive-based Polymers
- How to Start Up a Company

Diana K. Deese, Awards Committee Chair; Photos by Eva Li, Publicity

Spring Awards Banquet Honors Teachers, Students, Others

It was a dark and stormy night May 3rd when members and guests of the American Chemical Society Midland Section gathered from five counties for the 21st Annual Awards Banquet to honor past, present, and future chemists and those who support them. Over 200 guests were treated to a delicious plated chicken dinner as part of the evening's festivities. Ultimately, though, it was about recognizing the efforts and achievements of our winners.

High-scoring Chemistry Olympiad participants were honored. The Chemistry Olympiad is a multi-tiered competition that brings together the

world's most talented high school students to test their chemistry knowledge and skills. The local level of the competition involved 6 local schools and a total of 125 participants. The following six students achieved the highest scores of all local participants, and were recognized with a certificate and token gratuity for their significant achievement in this stage of the competition:

- **Christopher Dinh**, H.H. Dow HS
- **Sean Belisle**, H.H. Dow HS
- **Andrew D. Camp**, H.H. Dow HS
- **Zachary Pennington**, Midland HS
- **Kyle Wagner**, Midland HS
- **Magda Hlavacek**, Saginaw Arts & Sciences Academy

Dee Strand, Dow Fellow, Dow Energy Materials, gave a presentation on the International Chemistry Olympiad (IChO) and its significance. This is only the second time in its 44-year history that the IChO has been held in the United States.

Over 70 nations will send teams of four students to the University of Maryland, College Park, to participate in ten days of exams, lab work, and other scientific and cultural experiences.

In honoring a commitment to developing the next generation of chemists and chemical engineers, The Dow Chemical Company is the sole sponsor of the 2012 event. More information on this program can be found at <http://www.dow.com/company/icho/>.

Billing himself as the only comic with a PhD from MIT, Dr. Pete Ludovice, professor at the Georgia Institute of Technology by day, treated banquet attendees to his comedy show, "Lab Coats and Other Fashion Statements: The Lighter Side of the Chemical Sciences." Through his unique brand of humor, we learned the difference between geeks and



Banquet-goers were treated to entertainment by Chemist-Comedian, Dr. Pete Ludovice.



Over 200 awardees, members and guests attended the Awards Banquet.

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nerds, how to market STEM programs with humor, and most of all, how to laugh at ourselves as chemists. Attendees aged 16–90 all found something to laugh at, as well as a new approach to helping “normal” people understand us.

Thirty local high school students were honored for being outstanding chemistry students as chosen by the chemistry department at each school. Students were introduced with answers they provided to the following questions: what chemistry experiment most intrigued them; where they planned on attending college and in what field (sorry everyone, the University of Michigan was the overwhelming favorite); and, what science concept they would like to see come to fruition or what person was their science hero (answers ranged from their chemistry teachers to historical figures to fictional characters such as Captain Kirk and Dr. Sheldon Cooper).

As these young people will become the people that we work beside, that create our medicines, that invent alternative energies, and that discover new technologies for our future, I assure you, we are in good hands.

- **Charnay Gloss**, Arthur Hill
- **Katie Surdock**, Ashley
- **Reese Haller**, Bay City Central
- **Zach Barber**, Bay City Central
- **Michaela Metiva**, Bay-Arenac
- **Jalicia Bratton**, Bay-Arenac
- **Cody Gulick**, Breckenridge
- **Elise Weaver**, Bridgeport-Spaulding
- **Demetrius Randolph**, Buena Vista
- **Kayla Wanous**, Bullock Creek
- **Rebekah Andrews**, Chesaning Union
- **Joshua Pendleton**, Frankenmuth
- **Taylor Landeryou**, Freeland
- **Jennifer Roberts**, Garber
- **Patricia Bartlett**, H.H. Dow
- **Clare Hyde**, H.H. Dow
- **Scott Inman**, Heritage
- **Chris Minnis**, John Glenn
- **Samuel Michael**, Merrill
- **Jess Chrysler**, Midland Academy
- **Zachary Pennington**, Midland
- **Michael Wyman**, Mt. Pleasant
- **Zachary Nine**, Pinconning
- **Natalie Zimmerman**, Sacred Heart Academy
- **Bradley Yurgens**, Saginaw Arts & Sciences Academy
- **Natalie Noble**, Shepherd
- **Emily Heitsch**, St. Louis

- **Ashley Nichols**, Swan Valley
- **Tiffany Brocke**, Western
- **Storm Crawford**, Windover

Seven Outstanding College Students were recognized as they embark on their careers in chemistry and biochemistry. They are eager to put to use all of the knowledge instilled in them and make their mark on our future:

- **Jennifer Meloche**, Alma College, Chemistry
- **Amelia Glazier**, Alma College, Biochemistry
- **Stephanie Urbanawiz**, CMU, Chemistry
- **Kaitlin Carlson**, CMU, Biochemistry
- **John Wisniewski**, CMU, Biochemistry
- **David James Premo**, Delta College, Chemistry
- **Scott McCann**, SVSU, Chemistry

Jeff Seifferly, Mid-Michigan Technician Group Chair, presented to Jeremy Marchand of Delta College, the Outstanding Chemical Technology Student Award. A record number of nominees were submitted for this award and the MMTG board had their work cut out for them as they made their selection. This award comes with a Chemical Technicians Reference Book, a gift card, and a framed certificate.



Outstanding Teacher, Jayme Swanson (r)

While we honor all of the students, we cannot overlook the importance of the people who have taught them. Our educators spend so much time cultivating the passion our students have for the sciences. They give countless hours of their own time and pay for expenses out of their own pocket because they believe in giving their very best to create new opportunities for their students. Many nominees were received for the middle level, high school level and college level teaching awards. The awards committee continues to be amazed at the innovative way teachers find to engage our young people.



Outstanding Teacher, Joseph Bruessow (r)

Nominations for each of this year's winners were a collection of accolades and achievements as written by peers, parents, and students. This year, three local teachers were honored for their Outstanding Achievement in Teaching:

- **Jayme Swanson**, Science, Northeast Middle School—Midland
- **Joseph Bruessow**, Chemistry, Western High School—Auburn
- **Dr. David S. Karpovich**, Chemistry—SVSU



Outstanding Teacher, Dr. David Karpovich (r)

The Midland Section also recognized those who have paved the way for the rest of us. Three 50-year and six 60-year members of the American Chemical Society were honored with framed certificates for their service and dedication to the society. A brief recap of where each studied, their career history, and what they have been involved in since retirement was recited as they were presented their certificates:

- **Dr. Fred A. Blanchard**, 60 Years
- **Mr. Loren A. Haluska**, 60 Years
- **Dr. George A. Lane**, 60 Years
- **Dr. Frank L. Saunders**, 60 Years
- **Dr. F. M. Scheidt**, 60 Years
- **Mr. William C. Taylor**, 60 Years

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- **Mr. Corwin J. Bredeweg**, 50 Years
- **Dr. William E. Dennis**, 50 Years
- **Dr. Theodore E. Tabor**, 50 Years

Dr. Estelle Lebeau from Central Michigan University was honored with the Outstanding Education Volunteer of the Year award. Dr. Lebeau has volunteered her time mentoring Science Olympiad teams, spent time reviewing new science teaching standards for local schools, and arranged to bring in materials for students to use from sources outside the public school system.

Mike Ferritto received a special acknowledgement in the form of a 100th anniversary t-shirt and a crystal globe inscribed "A World of Thanks" for his work with Girl Scouts Heart of Michigan – Midland County. Through the ACS program "Bringing Science to Life in the Classroom" Cadette, Senior, and Ambassador Girl Scouts who have completed program aide training were instructed through a multitude of experiments. These girls will use what they learned to teach other kids the magic of chemistry.

The recipient of the 2012 Outstanding Chemical Technician is Amber Wallace of The Dow Chemical



Amber Wallace,
Outstanding Chemical Technician

Company. Ms. Wallace stepped up for all of the challenges as Dow built a battery materials R&D lab from scratch including becoming the "go to" person for electrode and battery assembly, documentation and training of many new PhDs coming into the lab, and most recently completing all the safety reviews for Dow's new battery assembly dry room. Amber continues to impress others through her drive to improve team capabilities and her passion for figuring out new ways to eliminate roadblocks to move research forward.



Dr. Linneaus Dorman (I) was awarded the Outstanding Achievement in the Promotion of Diversity in Chemistry, Related Sciences, and Engineering Award.

It was an honor for the Midland Section to finally be able to award Dr. Linneaus Dorman with the Outstanding Achievement in the Promotion of Diversity in Chemistry, Related Sciences, and Engineering Award. Dr. Dorman was largely responsible for originating this Midland Section award for Promotion of Diversity in 2001. One of the requirements for recipients of this award is that they cannot be members of the Midland Section Minority Affairs Committee, and Dr. Dorman served as chair of this committee from 2000 to

2009—essentially the entire time the Committee was in existence. Thus, he was not eligible to receive this award until 2010.

It is ironic that the person who was most responsible for originating this award, and is eminently qualified to receive it, has never received it himself. Dr. Dorman was one of the forces behind the establishment of the Midland Section Scholarship program in 2005 and served as Chairman of the Scholarship Committee from 2005 to 2007. He has held over 16 positions with the local section, and actively participated at the regional and national level. Well done, Dr. Dorman!

As chair of the ACS Midland Section Awards Committee, I want to thank Gretchen Kohl for framing the 50- and 60-year certificates, Amy Tesolin-Gee for publicity, and Eva Li for photographing the event. Pictures may be viewed using the following link <https://skydrive.live.com/redir.aspx?cid=ce2b550d7eda10ad&resid=CE2B550D7EDA10AD!493&parid=root>.

I want to give special thanks to the awards team: Hobart Barker, Minghui Chai, Janet Smith, Petar Dvornic, Steve Kaganove, Steve Keinath, and Pamela Slavings for all of their hard work in making this event what it was.

If you were unable to attend this fun-filled evening, be assured that the 22nd Annual Awards Ceremony promises to be just as exciting as a combined event with the Midland Section hosting the Central Regional Meeting in the spring of 2013. Watch for the call for nominations in *The Midland Chemist* beginning in December and running through March 2013. Consider nominating someone in one of the categories that will be listed, or contact Diana Deese at awards@midlandacs.org for a preview of the awards offered in 2013. It is never too early to start!

Jeff Seifferly, MMTG Chair

Mid-Michigan Technician Group Holds "Dinner and Learn"

MMTG held our first 2012 "Dinner and Learn" event in April. Representatives from Hantz Financial Group sponsored a financial planning seminar at China Palace in Midland with dinner buffet and drinks included. We had 25 members / spouses in attendance.

Topics covered include financial

planning, retirement planning, and some planning for college costs. MMTG members' comments included "the seminar motivated me to hire someone to advise my investments and to get my living will updated, since it's been 15 years." A comment was also received stating "hopefully, they can fix the mess my stupid tax guy made the

last 2 years." Hantz Group was very pleased, both with the number of response cards filled out with favorable comments (100%), and members taking advantage of their offer of a free financial planning consultation. If interested in joining MMTG, please contact Jeff Seifferly: 989-496-4239, jeff.seifferly@dowcorning.com.

Rusty Govitz, MMI Communications Director

MITCON Secures Computer Grant to Aid Area Non-Profits

The Midland Information Technology Consortium (MITCON) is partnering with the Herbert H. and Grace A. Dow Foundation to provide new computer workstations to nearly 600 area health and human service providers. The grant, worth \$357,000, was awarded to MITCON at the end of 2011. MITCON has been the information technology provider to most Midland area non-profit organizations (NPOs) for more than a decade, supplying IT expertise, support and strategy to 37 organizations.

MITCON started as a project to rebuild the information technology platform at Michigan Molecular Institute (MMI). From there, it blossomed into providing IT support to a handful of non-profits in Discovery Square. Then United Way of Midland County and many of its member agencies got involved. And twelve years later, Ed Haycock, MITCON Program Manager and his small crew of IT pros found themselves responsible for 580 computer workstations spread out over 37 local non-profits, including everything from United Way to West Midland Family Center, from Shelterhouse to most of the foundations in town.

"With our workstation initiative that is generously funded by this grant from the Herbert H. and Grace A. Dow Foundation, we had two objectives," said Haycock. "We wanted to drive down the cost of day-to-day support by standardizing our users on a single platform, and we wanted to get all of our users on the same purchase cycle. Doing that gives us purchasing leverage that drives down costs by about 35 percent."

Combining the maintenance and buying efficiencies will elevate MITCON and its members to a new level of technology service and support, Haycock said, which will have immediate and direct impact on each organization's core functions, as well as its bottom line. "It's going to cost non-profits significantly less to replace outdated hardware," Haycock said. "That's going to mean they have more funds to dedicate to their mission in the community—helping people."

Margaret Ann "Ranny" Riecker, President of the Herbert H. and Grace A. Dow Foundation, said MITCON's track record of helping local non-profits played a big part in the founda-

tion's decision to fund the project. "In MITCON, you have a small group of very dedicated information technology professionals handling the workload of a much larger group, and doing so expertly," Riecker said. "Foundations are constantly seeking smarter, more efficient methods of pooling resources, and MITCON has fit that description for 12 years now. We're proud to count them as allies in building a better community."

"The Herbert H. and Grace A. Dow Foundation has been instrumental in MITCON's growth, right from the start," Haycock says. "They recognized how much good we could do technologically for Midland's many health and human service agencies—certainly much more than most of them were capable of providing to themselves. The foundation laid out the financial support to allow MITCON to help these NPOs in a game-changing kind of way."

Haycock said MITCON has been able to hold the line on membership fees to agencies for its entire decade-plus of existence, but the ever-growing diversity of hardware and software presented a challenge that needed solving. "Imagine you're an IT professional and responsible for maintaining 580 computers," he said. "Now imagine that set of workstations is put together 580 different ways. Five-hundred-eighty different makes and models, numerous different operating systems, software packages, proprietary programs, drivers and hardware accessories. Five-hundred-eighty different sets of IT challenges to solve."

And it's not the agencies' fault; economics often dictate that you spend as little as possible on IT needs. But it's often a case of applying a bandage when the circumstances really call for surgery. "But it didn't take long to realize how much more effectively and efficiently things would run if all 580 users started with the same base package. In addition to providing brand-new computers for everybody, standardizing these workstations is going to allow us to do our work better and keep costs down for everyone."

Today, MITCON supports 37 NPOs—the bulk of which are United Way partner agencies—and about 580 networked computers. MITCON members benefit from a managed and shared network infrastructure built across fi-

ber, wireless and VPN-connected nodes; shared network servers and services; and day-to-day operational support.

Specific services provided include network design and implementation; an Exchange server farm; Internet hosting servers (DNS, Web, FTP, VPN, etc.); distributed Microsoft Windows Domain infrastructure; high speed Internet connectivity; firewall protection; end-to-end network infrastructure support; desktop OS and applications support; antivirus and antimalware delivery and support; and physical installation of desktop, printer and server hardware. All these services are coordinated through MITCON's help desk and network operations center, and all are part-and-parcel of MITCON membership.

While MITCON—whose staff numbers six full-time employees, plus a couple co-op students—has tackled big projects in the past, nothing compares to implementing a complete workstation change-out among its 580 end-users. "If you've never seen that many boxed computers and monitors in a single room, you can't even appreciate how much physical space it takes to simply house them," Haycock said. "One of our member agencies, the Michigan Baseball Foundation, graciously offered to share storage space and a loading dock while we prepare the machines for distribution, and we are grateful. "And obviously, it's impossible to overstate the Herbert H. and Grace A. Dow Foundation's importance to this project," he added. "Without them, there is no project."

Haycock expects the replacement process to take several months. As part of the grant approval process, participating agencies have agreed to release their old machines to either be sold at a community sale or sent back to Dell as part of its recycling program. "We've determined which machines are worth trying to resell at a very reasonable price to the community, and which are candidates to send back to Dell for recycling," Haycock said. "Proceeds will be funneled back into the next cycle of workstation procurements in a few years."

MITCON is a non-profit division of

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Shawn (Xiaoyun) Chen, Chair, Nominations and Elections Committee

Call for 2013 Officer Candidates

Here is your chance to become more involved in your local ACS section. We need candidates to run for the following positions for 2013:

Chair-elect

Directors (3 slots open, 3-year term)

Secretary

Treasurer

Chair of Nominations & Elections

If you are interested in running for any of these positions or know someone who might be interested, please contact Shawn (Xiaoyun) Chen at 989-636-9042 or xchen4@dow.com.

If you have any questions regarding the responsibilities of the positions, please contact the current officers or Shawn Chen, or you are welcome to visit our website at www.midlandacs.org. Our handbook provides further details: <http://midlandacs.org/uploads/images/administration/ACSMidlandSectionHandbook.pdf>.

Nominations from the floor will be

accepted at the August 6 and August 27, 2012 board meetings, held at 7:00 p.m. in the Board Room or Auditorium in the basement of the Midland Center for the Arts. Please be aware that any nominees will have to accept the nomination prior to their announcement from the floor.

There are a variety of compelling reasons to take advantage of the chance to become involved as an officer or director in the Midland Section ACS: networking beyond your workplace, opportunity to provide vision and voice to your local scientific community, and to hone your interpersonal and leadership skills.

Please consider getting involved within the Midland Section—if you are not running for a board position, there are still many other great areas for you to serve.

Current nomination and election committee members include Shawn Chen (chair), Pat Smith, Kevin Weir, Wenjun Du, and Abhijit Sarkar.

Gina Malczewski, Chair

Fireworks Science Café on June 25

A science café on fireworks is being held at MCFTA at 8 p.m. on June 25 (June 27 is the rain date). Jim Malek, a certified pyrotechnician, former chemist at Dow Corning, and member of the National Fireworks Association, who has worked on fireworks for Bay City, Midland, and the Loons, is our featured speaker.

You MUST pre-register after June 1—tickets will be limited to the first 110 people. The event is FREE and includes a presentation AND fireworks outside afterward!

A new law takes effect in Michigan this year, increasing public access to many kinds of fireworks—we encourage you to learn more about their construction, chemistry, and safety.

To pre-register, call 989-631-8250 or go to <http://www.mcfta.org/tickets/calendar.aspx>

Gina Malczewski, Chair

Tech-knowledge-y 2012: A Great Experiment

With \$1000 received from National (a "Local Section Grant"), and an idea about how to serve a cross-section of local current and potential members, the Program Committee organized a wonderful event on April 14th at Delta College.

Gavin Lu, Wayde Konze, Marilyn Shope, Christine Weber and Gina Malczewski organized a "STEM Fair" of sorts, placing emphasis on the future of Science, Engineering, Technology and Math careers by discussing the current status of local, state and federal efforts to recruit to those paths, while offering assistance to those considering them, or looking for employment in those areas.

First, we are very grateful for the support of Delta College and its VP of Curriculum, our own Tom Lane (and assistant Leslie Smith) for offering the venue, and assistance in other forms. Sen. Carol Levin gave an interesting keynote address: "*Why Balanced Deficit Reduction is Crucial to Technology Education*."

Dave Maurer of WSGW did a wonderful job as moderator of the panel

discussion, involving:

Dr. Tom Lane—VP of Instruction and Learning Services; Chief Academic Officer, Delta College

Veronica Horn—State Government Relations Manager, Dow Corning

Deb Zellner—Executive Director of the Isabella Bank Institute for Entrepreneurship, Central Michigan University

Deborah Huntley—Dean of the College of Science, Engineering & Technology, SVSU

Lynn Bruchhof—Vice President, Mid-Michigan Health

Eileen Weiser—VP, State Board of Education; VP, Macomb Community College

Dr. David Bem—Global R&D Director, Dow Chemical

Ryan Howell—HR Manager, Hemlock Semiconductor

Representatives for Dow, Dow Corning,

SVSU, Delta and CMU were on hand, and workshops were held on interviewing skills, resume writing, and using social media to search for jobs. We also had mentors available to discuss their career paths with interested participants.

Although attendance was below expectations, a great deal was learned for the future as a repeat event will be considered depending on the availability of volunteers and support. We also received great news coverage in local papers and on television. Anyone having interest in continuing work in this area or on a similar future event should contact Wayde Konze.

(Continued from page 6)

MMI, dedicated to bringing information technology expertise, support and planning to Midland area NPOs. For more info, visit www.mitcon.org; contact MITCON Program Manager, Ed Haycock 989.832.5555 (x5600), haycock@mitcon.org; or email info@mitcon.org.

Delaware Section of the American Chemical Society

Dr. Donald A. Tomalia Receives 2012 Carothers Award

Dr. Donald A. Tomalia, Founder and CEO of NanoSynthons is the recipient of the 35th Carothers Award presented by the Delaware Section of the American Chemical Society for recognition of his seminal work on dendrimers.

This discovery in 1979 at The Dow Chemical Research Laboratories, Midland, Michigan involved making synthetic polymers that mimicked the appearance and growth of trees. The term "dendrimer," coined by Tomalia, originates from the Greek word "dendri" meaning "tree" and "meros" meaning "part of." Dendrimers are some of the most precise synthetic nanostructures known to mankind.

His review article in *Angew. Chem. Int. Ed. Engl.* entitled: "Starburst Dendrimers: Molecular Level Control of Size, Shape, Surface Chemistry, Topology and Flexibility from Atoms to Macroscopic Matter," D.A. Tomalia, A.M. Naylor W.A. Goddard III, *Angew. Chem. Int. Ed. Engl.*, 29(2), 138 (1990) has >2,382 citations. Tomalia was recently inducted into the Thomas Reuters Hall of Citation Laureates in Chemistry (i.e., 40 most highly cited scientists in the field of chemistry)

(2011). His forthcoming book entitled: *Dendrimers, Dendrons and Dendritic Polymers: Discovery, Applications and the Future* coauthored with J.B. Christensen and U. Boas will be available in May 2012 (Cambridge University Press).

Tomalia is a pioneering force in dendritic polymers which are now accepted as the fourth major class of polymers. He has become recognized as an international focal point and catalyst for activities related to dendrimer-based nanotechnology and nanomedicine. His extensive studies on dendrimers provided him a window to recent work concerning a systematic framework for defining and unifying nanoscience.

The concept proposes the application of traditional first principles to discrete nano building blocks (i.e., nano-element categories) that behave like atoms. These nano-element categories exhibit stoichiometries, heuristic surface chemistries and nano-periodic property patterns/relationships normally associated with atoms.

This framework has provided first steps toward recent Mendeleev-like nano-periodic tables for predicting critical nano-physico-chemical properties.

These nano-periodic tables may be used to establish risk and benefit boundaries for designing new nanocompounds/assemblies. This work portends the new emerging fields of stoichiometric "synthetic inorganic and organic nano-chemistry."

Published reviews of this new concept includes: "In Quest of a Systematic Framework for Unifying and Defining Nanoscience," *J. of Nanoparticle Research*, 11, 1251 (2009) and "Dendrons/Dendrimers: Quantized, Nano-element Like Building Blocks for Soft-Soft and Soft-Hard Nanocompound Synthesis," *Soft Matter*, 6, 456 (2010).

The Wallace H. Carothers Award was established by the Delaware Section of the American Chemical Society in 1976 in memory of Wallace H. Carothers, one of the founders of modern polymer chemistry. The purpose of the award is to honor scientific innovators who have made outstanding contributions and advances in industrial applications of chemistry. More information about past awardees can be found at <http://delacs.sites.acs.org/>.

*Phil Squattrito, 2013 Central Regional Meeting Chair***Volunteers Needed for 2013 Central Regional Meeting in Mt. Pleasant**

The 44th Central Regional ACS Meeting is being hosted by the Midland Section and will take place in Mount Pleasant, on the campus of Central Michigan University May 15-18, 2013. The Midland Section last hosted the Central Regional meeting in 2006 (in Frankenmuth). In recent years 600-1000 people have attended Central Regional meetings. Attendees are able to interact with a large number of other chemists from the region, which includes parts of Michigan, Indiana, Ohio, Kentucky, West Virginia, and Pennsylvania.

The organizing committee is actively seeking volunteers who are interested in helping with the planning of the 2013 Meeting. Volunteers are welcome in all areas, though we are particularly interested in identifying individuals who would be willing to

assist with fundraising in the Midland chemical community.

Committees Include:

- Technical program
- Poster session
- Treasurer
- Program book editor
- Awards
- Fundraising
- Undergraduate program
- Exposition
- Publicity
- Web master
- Education program
- Social activities

Follow the meeting planning at our web site: <http://2013cerm.sites.acs.org>. Please contact Phil Squattrito (p.squattrito@cmich.edu or 989-774-4407) to volunteer or for more information.

*Wendell Dilling, Director***Section to Offer Historical Exhibit**

The Midland Section ACS will have an exhibit of Section historical materials on display in the Clarke Historical Library at Central Michigan University for several months in the first half of 2013.

This exhibit will also be featured at the ACS Central Regional Meeting (CERM) being held at CMU on May 15-18, 2013. For further information on the 2013 CERM, visit: <http://2013cerm.sites.acs.org/aboutus.htm>.

If any Local Section members have suggestions of special historical items that they feel should be part of this exhibit, please inform the Section Historian, Wendell Dilling: dilling1wl@cmich.edu or 989-631-1621. The entire Midland Section ACS historical archives are too large to exhibit all of it.

Wendell Dilling, Director and Historian

In Past Issues of *The Midland Chemist*

40 Years Ago This Month

In *Chairman's Column* by Jack F. Mills: "These are frustrating yet challenging times for both chemists and the chemical industry. The frustration is occasioned by the compilation of increased environmental problems, shrinking R & D budgets, vanishing jobs and spreading mass layoffs. A reflection of discontent in the ACS membership is evident in the results of our national election for chairman-elect. Dr. Nixon, a petition candidate, campaigned on the theme 'the first responsibility of the ACS is to its own members' and won in the largest vote tally in ACS election history."

30 Years Ago This Month

In *Greetings to the Participants of the 14th Central Regional Meeting* by William E. Dennis, Chairman, Midland Section: "I wish to extend a most cordial welcome to the participants of the 14th Central Regional Meeting on behalf of the Midland Section of the American Chemical Society. It is a memorable occasion for the Midland Section to be hosting a meeting of this magnitude. Many disciplines of science and chemistry are repre-

sented at this meeting. Three events worthy of special note are: A Symposium on Boranes in Organic Synthesis in honor of Herbert C. Brown who is delivering the plenary address. The Kipping Award Symposium on Organosilicon Chemistry and the awarding of the Frederick Stanley Kipping Award to Thomas J. Barton. The Michigan Molecular Institute's 10th Anniversary Symposium."

20 Years Ago This Month

In *1992 ACS Science Education Awards Banquet* by Carol Hoag: "Science is vital to our everyday lives, and many teachers and students who were honored at the Midland Section American Chemical Society (ACS) 'Spring Science Education Recognition Night' have spent much of their time upholding that fact. On the evening of May 13, Vicky Cobb, Midland Section ACS Chairman, presented 25 awards and recognized several others who have shown commitment to science education. Five awards were presented to educators who demonstrated exceptional achievements in the teaching of chemistry and science, one award upheld employee volunteer dedication to the promotion of science in the schools,

and the other five awards acknowledged outstanding college and high school chemistry students. Several more people were recognized for their involvements in ACS educational programs."

10 Years Ago This Month

In *Delta College Dedicates New Chemical Process Technology Lab and Program* by Joan Sabourin: "On April 17, 2002, Delta College's new chemical process technology laboratory and program were dedicated. This event also celebrated a significant partnership between education and industry. In the early 1990s, the chemical industry became increasingly aware that an aging workforce would give way to a need for skilled workers in many areas. One of the areas identified nationwide was the need for skilled chemical laboratory technicians and process technicians to maintain America's high standards of performance. In response to this need, compatible but different partnerships developed between Dow Corning Corporation, The Dow Chemical Company, Michigan Technological University, Saginaw Career Complex, and Delta College."

Gina Malczewski, Chair

Board Meetings Open to All: In person or Conference Call

We are now meeting (mostly) on the FIRST MONDAY of the month at MCFTA, in the Board Room, at 7 p.m. Our new schedule allows us to avoid National meetings, spring break, and holidays.

The few exceptions for location will be held in the Lecture Room (downstairs, right across the hall from the Board Room). I am introducing conference calling, so PLEASE FEEL WELCOME to participate in any meeting, whether you can come in person or not. We will try to send any slides ahead if we know who's interested.

**Conference call phone number
(toll free): 866-299-7945**

**Participant code
(you will hear a prompt):
9837036#**

Board Meetings 2012

Date	Start	End	Room	Status
1/9/2012 Mon	7:00 PM	9:00 PM	LECTURE RM	Confirmed
2/6/2012 Mon	7:00 PM	9:00 PM	BOARD ROOM	Confirmed
3/5/2012 Mon	7:00 PM	9:00 PM	BOARD ROOM	Confirmed
4/9/2012 Mon	7:00 PM	9:00 PM	LECTURE RM	Confirmed
6/4/2012 Mon	7:00 PM	9:00 PM	BOARD ROOM	Confirmed
8/6/2012 Mon	7:00 PM	9:00 PM	BOARD ROOM	Confirmed
8/27/2012 Mon	7:00 PM	9:00 PM	BOARD ROOM	Confirmed
10/1/2012 Mon	7:00 PM	9:00 PM	BOARD ROOM	Confirmed
11/5/2012 Mon	7:00 PM	9:00 PM	BOARD ROOM	Confirmed
12/3/2012 Mon	7:00 PM	9:00 PM	BOARD ROOM	Confirmed

All meetings will be at MCFTA.
7 pm will be the start of the standard meeting.
Conference calling arrangements will be publicized ahead of time---call-in will be to a specified TOLL FREE number.

NOTE: May 7 is tentatively at the same time in the Board room—not yet confirmed.
"Special" pre-Board meetings will take place as needed 6-7 pm in the same location.

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