36th Central Regional Meeting is a Success!

By David Malik

The 36th Central Regional Meeting was held June 2 – 4 2004 at the University Place Conference Center on the IUPUI campus. From all accounts, participants were enthusiastic and thoroughly enjoyed both the technical and non-technical components of the meeting. Approximately 765 people registered for the meeting with about half being members of the ACS. 463 abstracts were submitted of which 249 were invited papers; over 150 posters were submitted. About forty exhibitors were also part of the program effort. Representatives of the Regional Meeting Office in Washington, DC praised this registration level as indicative of a highly successful meeting.

Highlights of the meeting included an opening Plenary Session which consisted of a brief 30 minutes of extreme chemical demonstrations with several dignitaries, including Mayor Peterson, IUPUI Chancellor Bantz, ACS President Charles Casey, and representatives from industry. Special student assistants were selected from area high schools to explain these demonstrations. Also special beer was brewed by the Ram Restaurant and Brewery in Indianapolis. Many meeting participants consumed “Alchemist’s Ale” during our afternoon poster sessions. Another popular feature of the meeting was the free wireless access for attendees throughout the Conference Center. With our continuous break service, there was no shortage of sustenance to take one through the numerous sessions.

Technical presentations ran the gamut from the chemistry of racing, to forensics, to chemistry and the law, to chemistry and art, as well as the traditional areas of chemistry. Interdisciplinary research is becoming an important growing component in chemistry. Therefore, presentations that overlap medicine, biology, and other areas were numerous throughout the meeting and drew large crowds.

With healthy registration revenues, a large exhibitor presence, and major contributions from local industry and academe, our section hosted a highly successful meeting. If local section members are interested in the program content, send e-mail to David Malik, General Chair of the CRM 2004, at malik@chem.iupui.edu and one will be sent to you.

Members of the Organizing Committee included the following:
- David Malik, Chair
- Robert Pribush, Program
- Pat Walsh, Treasurer
- Ann Hunt, Development
- David Mitchell, Exhibits
- Dawn Brooks and Brian Mathes, Communications
- Christina Erwin, Special Events
- Stan Kolis, Awards
- Laura Slocum, Chemagination
- Dan Robertson, Web
- Sam Wendel, Mailing
- Jeannie Cetusic and Denise Perreault, Program Book
- Keith Anliker, Poster Session Coordinator
- Lee Bobbitt, Advisor and Registration
- Jim Renga, Advisor

To find up to date information about Local Section activities, visit our website: http://membership.acs.org/i/indiana/
2004 CRM Awards Banquets Summary

by Stan Kolis

The Central Region bestowed two awards at the 2004 Central Regional Meeting: the 2004 Central Region HS Teacher of the Year and the 2004 Central Regional Industrial Innovation Awards. In addition, for the first time ever, the Central Region ran a “Chemagination” contest for High School students. The awards were handed out over a span of two events that occurred on Wednesday and Thursday nights in the Ballroom at the University Place Conference Center.

The Industrial Innovation Awards Event featured a keynote address by ACS President Charles Casey who spoke on “Challenges for Chemists” in the coming century. Awards were conferred on David Henton (The Dow Chemical Company) and Hamid Kia and Harry Mitchell (General Motors R&D) for the development of commercial products that benefit their companies and the general public. They along with two of the other nominees presented posters at a session that preceded dinner and the awards ceremony.

The Thursday night academic awards event featured addresses by ACS President Charles Casey who spoke on “Challenges for Chemists” in the coming century. Awards were conferred on David Henton (The Dow Chemical Company) and Hamid Kia and Harry Mitchell (General Motors R&D) for the development of commercial products that benefit their companies and the general public. They along with two of the other nominees presented posters at a session that preceded dinner and the awards ceremony.

The Thursday night academic awards event featured addresses by Donald Davidson, the Historian at the Indianapolis Motor Speedway Museum, and Joe Turpin, an analytical chemist from Eli Lilly and Company.

Following these discussions, the Central Region HS Teacher of the Year Award was presented to Dr. Joel Bernstein, a 30 year veteran of the classroom from the Hawken School in Cleveland, OH. Dr. Bernstein will become the region’s nominee for the Conant Award, which recognizes the National HS Chemistry Teacher of the Year. Following the HS Teacher of the Year Award, Chemagination awards were presented.

Chemagination is an essay and cover design contest for high school students conducted by the American Chemical Society. High school chemistry students write an article as if it were part of a future issue of the ChemMatters magazine, the premier magazine for high school chemistry students. The article may be written in any one of four categories (Biotechnology, Medicine/Healthcare, Transportation, New Materials) and must answer the question: “Twenty-five years in the future, what breakthrough or innovation related to chemistry and/or its applications will improve the quality of a teenager’s life?”

First Place Awardees in each category received $300/team in US Saving Bonds.

Runner-up awardees in each category received a signed copy of Oliver Sacks’ Uncle Tungsten: Memories of a Chemical Boyhood.

Women Chemists Committee Meets to Share Ideas on How to Facilitate Change

By Tracey Ward

On Thursday, June 3 approximately 30 ACS members were in attendance at the Women Chemists Committee Luncheon at the Central Regional ACS Meeting. The article “Radical Change, the Quiet Way,” by Debra E. Meyerson was used as a springboard for a discussion around changes concerning women in chemistry in both industrial and academic settings. After a brief period for discussion at individual tables, a spokesperson from each table highlighted changes that have been made to date as well as changes that still need to be made. The discourse concluded with the group sharing ideas on how each of us can facilitate change. The women left with a challenge not only to be aware of the giant strides that have already been taken, but personally to take steps to affect the changes that still need to occur.

Changes women have noticed over the last few decades include both positive and negative changes. Positive changes include a shift to a more positive attitude about women in the workplace, more instances of equal pay for equal work (including removal of formal salary caps for women that were 80% of the salary of male counterparts) and a noticeable increase in the number of females in both academic and industrial positions. Conversely, the women present at the luncheon observed that maintaining a work/life balance, increasing opportunities for networking and changing the attitudes of the public at large and of young women specifically are high priority issues that need attention. Among the many ideas shared for how to affect change were increasing personal involvement by mentoring, setting boundaries around work and family time and staying in contact with women met through networking.

To find up to date information about Local Section activities, visit our website: http://membership.acs.org/i/indiana/
High School Teachers’ Workshop
By Ben Hockema, Chris Phillips, Jeffrey Berglund, Joel Love

The Indiana Section of the American Chemical Society sponsored a workshop for high school chemistry and biology teachers concurrent with the high school scholarship exam. Dr. Michael Patrick of the University of Wisconsin-Madison facilitated the workshop for 15 attendees on visualizing macromolecules using the freeware program RasMol. He also discussed a variety of methods that will successfully make “invisible” molecules more real and understandable to high school students. Dr. Patrick brought the nature of the macromolecules and polar interactions to life with a variety of demonstrations. Each teacher-attendee also received a “toober” which can be used to depict conformations of macromolecules and a “water kit,” containing magnetized molecular models of water, useful for demonstrating polar interactions. Each attendee also received a 2004 National Chemistry Week t-shirt.

Education Program Events

By Kathy Stickney

The Education Committee of the Indiana Section of the American Chemical Society sponsored a variety of activities this spring, including: a High School Chemistry Teacher of the Year Competition, Chemistry Special Awards at the 2004 Central Indiana Regional Science Fair, a Chemagination Contest, the High School Chemistry Scholarship Exam, the National Chemistry Olympiad, and a High School Chemistry and Biology Teachers Workshop. An overview of several of our events is given below.

High School Chemistry Teacher of the Year

The entries for the Teacher of the Year competition, chaired by Lindell Ward of Franklin College, were meritorious and the decision was a difficult one to make. There are many teachers in our section with a strong history of involvement with professional societies, educational outreach, preparing students for chemistry and science contests, and curriculum development. All of our teacher-nominees are to be commended for the way they manage to do this extracurricular work while not losing touch with their “real” commitment teaching chemistry to today’s youth. It was a tough decision to make, and we are pleased to present this year’s Teacher of the Year Award to Mr. Jack Young of Columbus East High School.

The 52nd Central Indiana Regional Science Fair

The 52nd Central Indiana Regional Science and Engineering Fair, hosted by the University of Indianapolis from March 18 to 20, was attended by approximately 1000 students from the metropolitan Indianapolis area. There were many outstanding student-designed projects competing in the three-day event, which was made possible by support from the R. B. Annis Educational Foundation, the D. J. Angus Sciencetech Education Foundation, the Sciencetech Club, Davidson Industries, Subway, and the University of Indianapolis.

The Indiana Section of the American Chemical Society sponsored awards for the top chemistry projects at the fair. Each student-awardee received a 2004 National Chemistry Week t-shirt and a certificate noting his/her excellence in chemical experimentation. Special thanks go to Julie O’Brien of Eli Lilly and Company who designed the T-shirts and made this award possible, and to Eli Lilly and Company and Dow AgroSciences for funding the award. There were many outstanding projects at the fair, and we are indebted to the professional chemists who volunteered to judge for this award, including: Steve Quimby and Don Anderson of Eli Lilly and Company; Paul Krieger (retired) of Reilly Industries, Inc.; John Wyeth, Independent Consultant; Matt Glasheen of Astbury Environmental Services; and Kathy Stickney of the University of Indianapolis.

The Indiana Section would like to recognize and congratulate the following students for their excellence in chemistry—keep up the good work!

Lower Elementary Division (1st through 3rd grades):

Michael McReynolds (Forest Hill), Emily Padgett (Stony Creek), David Pimley (Forest Hill), Shabana Jamal (Hoosier Road), Elizabeth Gale (Forest Hill), Lizzie Ford (Hoosier Road), Zach Labens (Labens Academy), Danielle Phair (Creekside), and Bethany Henderson (Needham).

Upper Elementary Division (4th and 5th grades):

Marisha Wickremesinhe (Guion Creek), Rebecca Wornhoff (Central—Lebanon), Sara Senseman (White River), Scott Klutz (Sycamore), Yousef Elhabrush (Van Buren), and Cody Roberts (Creekside).

Junior Division (6th through 8th grades):

Sara Hollowell (home school), Emily Jones (Southwestern), Eric Lemmel (Our Lady of Greenwood), Joe Sullivan (St. (continued on page 4)
Cheminagion Contest
The Indiana Section of the American Chemical Society sponsored a Chemagination contest on February 28, 2004 at the University of Indianapolis. Laura Slocum of University High School chaired the contest and Ann Cutler of the University of Indianapolis organized the judging phase.

Cheminagion is a science essay and poster competition for high school chemistry students. This year, the contest asked teams of students in grades 9-12 to look into the future and predict a chemistry-related breakthrough or innovation that will be important in the lives of teenagers twenty-five years from now. Entries were written as a 1000-word article that might appear in a future issue of ChemMatters, the Society’s flagship publication for high school students. The students also prepared a poster and appeared before a team of judges to present their work. The contest challenged the students’ creative thinking and allowed them to demonstrate their knowledge of chemistry. There were a total of 7 entries from 20 students. The entries were divided into four divisions: Biotechnology, Medicine, Transportation, and New Materials. The top entry and runner up in each category were chosen by a team of judges: Ann Cutler, Bob Burchfield, Jane McKenzie, and Joe Burnell from the University of Indianapolis. Each member of the winning team received a $75 savings bond and money for travel expenses to the Central Regional Meeting (June 2004 in Indianapolis). The members of the runner up teams received the book The Periodic Table by Primo Levi. The awardees are listed below.

2004 Indiana Section Chemagination Winners

Biotechnology Division

First Place
($75 savings bond each, travel expenses to CRM)
India Johnson and Lisa Koerner
Verichip
University High School of Indiana
Teachers: Laura Slocum (chemistry), Helena Guzman (art), and Shelly Jones, Vicki Townsend, and Jenneatte Vanausdall (English)

Second Place
The Periodic Table
Megan Leis, Matt Scott, and Nick Long
Making Fuel Out of Plant Oils
Tri-West High School
Teacher: Chris Anne Slye

Medicine/Healthcare Division

First Place
($75 savings bond each, travel expenses to CRM)
Elizabeth Mang, Jake Lockhart, and Katie Pedersen
Can We Really Look Younger for Longer?: Telomerase Enhancer is the Answer
University High School of Indiana
Teachers: Laura Slocum (chemistry), Helena Guzman (art), and Shelly Jones, Vicki Townsend, and Jenneatte Vanausdall (English)

Second Place
The Periodic Table
Vijay Ramesh, Kristen Jaumann, and Michael Hahn
Colorblindness
University High School of Indiana
Teachers: Laura Slocum (chemistry), Helena Guzman (art), and Shelly Jones, Vicki Townsend, and Jenneatte Vanausdall (English)

Transportation Division

First Place
($75 savings bond each, travel expenses to CRM)
Ambar Plasencia, Daniel Frank, and Justin Nicholoff
Snow Free Cars
University High School of Indiana
Teachers: Laura Slocum (chemistry), Helena Guzman (art), and Shelly Jones, Vicki Townsend, and Jenneatte Vanausdall (English)

New Materials Division

First Place
($75 savings bond each, travel expenses to CRM)
Eddie Peterson, Daniel Ornstein, and Josh Salyer
New Viewing System Radically Changes Market, Outdoes Competition
University High School of Indiana
Teachers: Laura Slocum (chemistry), Helena Guzman (art), and Shelly Jones, Vicki Townsend, and Jenneatte Vanausdall (English)

Second Place
The Periodic Table
Michaela Stohler, Kathryn Brunton, Michael Himelstein
New Form of Matter
University High School of Indiana
Teachers: Laura Slocum (chemistry), Helena Guzman (art), and Shelly Jones, Vicki Townsend, and Jenneatte Vanausdall (English)

The High School Chemistry Scholarship Examination
The 2004 high school examination was a success with 180 students from 20 schools in the Indiana section participating in the examination. The examination was held at the University of Indianapolis on April 17, 2004. Scholarships were awarded to the top scoring students. All scholarship winners and honorable mention awardees received a CRC Handbook (First Year Division) or a Merck Index (Advanced Division). Each of the top five schools (determined by the scores of the first year students) received a check for $100. The exam was also used to select the top students in the section to participate in the prestigious National Chemistry Olympiad Exam. The awardees are listed below.

High School Chemistry Scholarship Examination Awards First Year Examination Awards

Scholarships

First Place ($1000 and CRC)
Fernando Sha
Indiana Academy

First Place ($1000 and CRC)
Joshua Hutchins
Carmel High School

- 4 -
Third Place  | Charles Tam  | North Central High School
($ 600 and CRC)

Fourth Place  | John Wright  | North Central High School
(tie) ($ 400 and CRC)

Fourth Place  | Yizheng He  | Carmel High School
(tie) ($ 400 and CRC)

Honorable Mention Awards (CRC Handbooks)

Andy Warren  | North Central High School
David Tidd  | Carmel High School
Lora Perry  | North Central High School
Tom McCarthy  | North Central High School
Yifan Zhang  | Carmel High School
Matthew Giffin  | Brebeuf Jesuit Preparatory School
Stuart Blankenhorn  | Brebeuf Jesuit Preparatory School
Daniel Ornstein  | University High School of Indiana
Russell Dennis  | Suburban Baptist School
Nan Lin  | Ben Davis High School

Advanced Examination Awards

Scholarships

First Place  | Zach Catlin*  | Indiana Academy
(tie) ($ 1000, The Merck Index)

First Place  | Priscilla Erickson  | Zionsville Community High School
(tie) ($ 1000, The Merck Index)

Third Place  | Christopher Lambie-Hanson  | Brebeuf Jesuit Preparatory School
($ 600, The Merck Index)

Honorable Mention Awards (The Merck Index)

Rex Gutsue*  | Brebeuf Jesuit Preparatory School
Thomas Eline  | Zionsville Community High School
Karen Zheng  | Carmel High School
Jeremy Fiege*  | Brebeuf Jesuit Preparatory School
Elaine Mihelc  | Zionsville Community High School
Mike Cyb*  | Carmel High School
Aaron Hershberger*  | Hamilton Southeastern High School
Alan Rosenbaum*  | Indiana Academy
Corina Iacopetti  | Zionsville Community High School
David McAndrews  | Zionsville Community High School

* Participated in the 2004 National Chemistry Olympiad held at the University of Indianapolis on April 19, 2004.

Chairperson’s Corner

By Laura Slocum

Summer, finally!!! What does that really mean???. For our local section that means ice cream and baseball!!!! David Mitchell, Program Chair, has organized these two monthly events for July and August, respectively, and the Executive Committee hopes that you will bring your family and join us.

For me, it means that I have finally graded my last exam and have had a bit of time to reflect on this past spring. A lot has happened in our local section and it has been great getting to meet new people. Many of these events are recapped elsewhere in this newsletter. I would like to take this opportunity to update you on two of our primary goals for this year – increased educational outreach and increased attendance at monthly meetings.

Kathy Stickeyn, Education Chair, arranged for Dr. Michael Patrick, from the University of Wisconsin-Madison, to share about the impact of molecular visualization on student learning during a teacher workshop in April. I thought the following comment from one of the teachers really summed up the teacher’s appreciation to Kathy and her committee –

Just wanted to say thank you for all your hard work. I appreciate the day there and I have enjoyed the speakers in the past (esp. Linda Ford) and I loved the presentation this morning! He was AWESOME.

I want the model kits, thought the toober and pins were great … Thanks again. I had a great time !!!!!

This hands-on workshop also gave teachers an opportunity to learn about and use Rasmol (free molecular visualization software).

The attendance at our monthly meetings is up by at least 20%. We had over 100 people at the Awards Banquet in May where Dr. Marcy Towns’ talk – “Stars, Snowflakes, and Stalagmites: What Do You Learn After 138 Years in Education?” – engaged the students and encouraged all of us to continue to explore our world and reach out to our community.

The Awards Banquet recognized 50-year ACS members and two members of our local section for their service to the section – David Malik and David Mitchell, as well as many in the education community. Students were recognized in the scholarship competition and Chemagination, and the inaugural Indiana Section High School Teacher of the Year award was awarded to Jack Young, Columbus East High School.

June brought the Central Regional ACS meeting. The planning committee led by David Malik, General Chair, and Bob Pribush, Technical Program Chair, organized a program that brought chemists from across the globe together not only to learn about the latest research advancements, but also to explore the Chemistry of Racing.

Take note of all of our upcoming events in the Upcoming Events Calendar. We will once again celebrate National Chemistry Week (NCW) at the Children’s Museum this year on November 6th. I know that Julie O’Brien could use some help with this event. Please contact her if you are interested (O’BRIEN_JULIE@LILLY.COM).

Finally, I would like to extend a special invitation to those of you who have not attended a monthly event. We would like to meet you. Also, if you are interested in serving on any of the committees, an extra hand is always appreciated.

Have a GREAT summer and see you at the Chemistry of Ice Cream or the Indians Game!!!
Flames and Bangs Astound Section

By Ann Cutler

He soaked a piece of white sheet in some clear liquid and hung it across a metal rod supported on a ring stand. A lit match was brought close and with a whoosh and flash the cloth caught fire. Orange flames jumped and danced along the flag of cloth as the lecturer went on completely unperturbed. Time ticked on as one by one the audience noticed the unexpected: the cloth was not consumed! Beneath the flames the white fabric sat untouched—not a single instance of singe or char apparent anywhere. In a moment, the demonstrator picked up a pair of crucible tongs and twirled the flaming cloth quickly, extinguishing the flames. The cloth was as good as new and ready to be used again to astound and amaze another audience.

Magic show? That and much more. Dr. John Fortman was presenting some of the combustible wonders of science to a group of ACS members and guests at University High School in Carmel. Dr. Fortman presented his talk on “The Difference between Fires and Explosions” to an enthusiastic audience April 13. An ice cream social followed the talk. The attendees were treated to safe demonstrations of the power of the thermite reaction (using rusted iron bearings and aluminum foil), the power behind projectiles, and a rousing demonstration of the workings of the internal combustion engine (with the assistance of some high-spirited University High School students). Dr. Fortman closed the show with a dramatic controlled explosion in a five-gallon water bottle.

Dr. Fortman is professor emeritus of chemistry at Wright State University and the winner of numerous awards in teaching. He is active in science outreach for the American Chemical Society as a tour speaker, and is active in teaching safe and effective chemical demonstration techniques to chemistry teachers. Given his warm reception by the members and students present, Dr. Fortman will be welcomed again by the Central Indiana Local Section to give one of his other renowned lectures.

Congratulations to Kathy Stickney, University of Indianapolis’ Teacher of the Year!

By Ann Cutler

The Central Indiana Section of the ACS is fortunate to have Dr. Katherine Stickney as its Chair of Education. Clearly, her abilities are recognized beyond the section as well. On April 6th, Dr. Stickney was awarded the title “Teacher of the Year” at the University of Indianapolis.

The Teacher of the Year Award is the highest honor afforded to any member of this faculty. Each year, only six professors are nominated from all schools on the campus. The nomination itself is considered an extremely high honor. A committee of the faculty then reviews the teaching performance of each nominee and asks for input from students present and past, and from colleagues across campus. Information from outreach and professional activities are sought as well.

The award, presented at the Honors Convocation in April of each year, is recognition for exemplary teaching and service. We join the faculty at the University of Indianapolis in applauding Dr. Stickney for this high honor.

Upcoming Events

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<th>Date</th>
<th>Event</th>
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<tr>
<td>Thursday, July 29</td>
<td>The Chemistry of Ice Cream</td>
<td>6 PM Sharp! Lilly Recreational Center On Raymond St just east of Harding – Across from Lilly Plant RSVP to Marty White at 276-4506 by July 27th</td>
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<tr>
<td>Thursday, August 5</td>
<td>Project SEED Poster Session</td>
<td>IUPUI Campus, Medical School Library</td>
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<tr>
<td>Tuesday, August 17</td>
<td>3rd Annual Indianapolis Indians Baseball Night</td>
<td>Victory Field 7 PM Game time Tickets are $9/person; Payment by check due by August 10 Contact Brian Mathes (<a href="mailto:MATHES_BRIAN_M@LILLY.COM">MATHES_BRIAN_M@LILLY.COM</a>) for more info</td>
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<tr>
<td>Thursday, September 23</td>
<td>Annual Chemistry Career Night</td>
<td>Riley Room at Butler University 5:30-8:30 PM Contact Lindell Ward (<a href="mailto:lward@franklincollege.edu">lward@franklincollege.edu</a>) or Jeannie Cetusic (<a href="mailto:jrpcetusic@dow.com">jrpcetusic@dow.com</a>) for info</td>
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<tr>
<td>Monday, October 11</td>
<td>Annual Local Section Poster Session</td>
<td>DePauw University – location TBA Contact Hilary Eppley (<a href="mailto:heppley@depauw.edu">heppley@depauw.edu</a>) for info</td>
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<tr>
<td>Saturday, November 6</td>
<td>National Chemistry Week Kickoff Event</td>
<td>The Children’s Museum Contact Julie O’Brien if you’d like to help/participate (O’<a href="mailto:BRIEN_JULIE@LILLY.COM">BRIEN_JULIE@LILLY.COM</a> or 328-1240)</td>
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