

CINTACS



Newsletter of the Cincinnati Section of the American Chemical Society

December, 2010
Vol. 48, No. 3

Meeting Calendar

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| Dec. 2 | Joint mtg. with NOBCCChE, @ Xavier University Dr. Clark Beck, Wright State University (Ret'd.) |
| Jan 1 | International Year of Chemistry begins |
| Jan. 12 | TBD |
| Feb. 9 | Chemist of the Year |
| Mar. 9 | TBD |
| Apr. 13 | Education Awards Night @ Northern Kentucky University |
| Apr. 16 | Earth Day Celebration, Sawyer Point |
| May | Party Night [TBD] |

In this issue

| | |
|--|---|
| December meeting announcement | 1 |
| From the Chair | 2 |
| December meeting — Directions to Xavier University | 3 |
| About the speaker, Dr. Clark Beck | 4 |
| National Chemistry Week — Thanks to volunteers | 5 |
| Call for section award nominations — Chemist & RA of the Year | 7 |
| Call for section meeting sponsors | 7 |
| P&G passings | 7 |
| 2011 is International Year of Chemistry | 8 |

DECEMBER MEETING

December 2nd, 2010



Xavier University

Conaton Board Room, Room 201 Schmidt Hall

Joint Meeting with the National Society for the Professional
Advancement of Black Chemists and Chemical Engineers
(NOBCCChE)

Featured Speaker:

**Dr. Clark Beck, Wright STEPP Founder & Wright State
University Retired Assistant Dean**

Program

5:15 - 6:15pm:

Room 103 Linder Hall: Dr. Tom Clark, Xavier U., Success
Principles in Writing Letters of Application and Resumes

Board Meeting: Room 101 Logan Hall

5:30 - 7:00pm: Registration, Conaton Board Room, 2nd
floor Schmidt Hall

6:00 - 7:00pm: Social Hour, Conaton Board Room.

7:00 - 8:00pm: Dinner. Conaton Board Room (\$25.00 or
\$15.00 for students, emeritus, unemployed & new members).
Menu: Pan Seared Chicken Breast with Hunter Sauce, Garden
Greens Salad with Italian Vinaigrette, Wild Rice Pilaf, Fresh
Seasonal Vegetable Medley, Fresh Baked Bread, Chocolate
Mousse with Raspberry Sauce, Whipped Cream and Chocolate
Shavings, Coffee, Tea. Vegetarian entree available upon re-
quest when making reservations. **Register Online:**

8:00 - 9:00pm: Speaker, Dr. Clark Beck: "STEM: Then
and Now.....Why and How"

(Continued on page 3)

THE CINTACS NEWSLETTER**Vol. 48, No. 3 December, 2010**

Editor.....Kevin Ashley
 Advertising.....Dan Esterline

CINTACS is published eight times a year (September through May) by the Cincinnati Section of the American Chemical Society. The submission deadline will be early-mid December for the January 2011 issue (due to the holidays). Electronic submission is strongly preferred. All materials should be sent to:

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From the Chair

Mark your calendar for our joint meeting with the National Organization of Black Chemists and Chemical Engineers, NOBCCHE on December 2, 2010. Dr. Clark Beck, retired Assistant Dean of the College of Engineering and Computer Science at Wright State University will deliver the address "STEM: Then and Now.....Why and How". Dr. Beck, is the founder of the Wright STEPP program, a partnership between Wright State University, Dayton Public Schools, local industry and Wright-Patterson Air Force Base, that puts selected high school students through a special, four-year math and science-based curriculum with the promise of a full four-year scholarship to the university at the end of it. Since its inception in 1987, Wright STEPP (Science, Technology and Engineering Preparatory Program) has served as model for science and technology instruction and prepared more than 1,300 students for college.

Education in science, technology, engineering and math (STEM) has received recently considerable attention and deservedly so. The state of STEM education in the U.S. is unflattering and concerning since a large majority of secondary school students are failing to reach proficiency in math and science. Dr. Beck is passionate about STEM education and has been in the "trenches", dealing with the "nuts and bolts" of setting a very successful program from the bottom-up. His talk promises to be a very interesting indeed.

For chemists and students seeking employment now or in the near future, you will not want to miss the one hour workshop "Success Principles in Writing Letters of Application and Resumes" by Dr. Tom Clark, Professor of Management at Xavier University and President, CommuniSkills. Dr. Clark teaches career communication classes in the business school at Xavier University and originated its Business Profession program, a mandatory four-year career continuing education program. Dr. Clark and his CommuniSkills staff have taught over 500 business communication skills workshops at P&G over the past 27 years. Other clients include General Electric, SC Johnson Wax, and Manpower. Tom earned his PhD at Indiana University and is the author of six books, including, most recently, Power Communication and Career Strategies.

I also want to encourage you to take the time and nominate a colleague or a coworker for the 2011 Cincinnati *Chemist of the Year* and *Research Associate of the Year*. It is not too late to do it; the deadline for submitting nominations is December 31st. Two letters of recommendation and the candidate's CV are needed for the Chemist of the Year. For the Research Associate of the Year submit the candidate's CV and one letter of recommendation. Additional supporting documents for both nominations are appreciated but optional. For more details see announcement in this newsletter.

We had a great turnout at the 7th Annual Family and Friends Picnic at Germania Park on September 26th, 2010. Over 75 people enjoyed the beautiful weather, the food and chatting with other fellow chemists in a relaxed atmosphere. The kids had a very good time with Goldie the clown doing face painting, balloons and other activities. They had a blast breaking a candy-filled piñata, doing chemistry demonstrations with George Rizzi and making ice cream with Roger Parker, thank you!

The 2010 Oesper Banquet on October 8th, honoring 2002 Nobel Laureate Dr. Kurt Wuthrich was a tremendous success. A total of 189 people attended the event, including 90 students from local colleges and universities, most notably the University of Cincinnati.

(Continued on Page 6)

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Please register online at www.acscincinnati.org. Alternatively, you may email the webmaster at webmaster@acscincinnati.org to register.

Directions to Meeting Venue:

The Xavier University Conaton Presidential Board Room is located on the second floor of Schmidt Hall. Parking is provided free with *the parking pass below* at the F&W Center on Dana Avenue across the street from Schmidt Hall. A map of Xavier University with directions can be found at <http://www.xavier.edu/about/Maps-Directions.cfm/map.pdf>.

Address of Xavier University: 3800 Victory Parkway, Cincinnati, Ohio 45207

From I-71: Exit at the Dana Avenue Exit. Proceed west on Dana Avenue past Ledge-wood Drive. As the road begins a slight turn, the Alumni Center parking area will be on the left before you reach Victory Parkway.

From I-75: Exit at Mitchell Avenue. Proceed east on Mitchell Avenue, crossing over Reading Road. Continue to Dana Avenue and turn left. Just after crossing Victory Parkway, the entrance to Alumni Center parking area will be on the right.

From Route 562: Exit the Norwood Lateral at Reading Road. Continue in the left lane of Reading Road to Victory Parkway. Merge left onto Victory Parkway at the light. Continue to Dana Avenue. Turn left onto Dana Avenue. The entrance to Alumni center parking area will be on the right in about half a block.



XAVIER UNIVERSITY

Conaton Presidential Board Room
Second floor Schmidt Hall

Temporary Reserved Parking Permit

Valid for American Chemical Society Meeting
ALUMNI PARKING AREA

December 2, 2010

CARD MUST BE DISPLAYED ON PASSENGER SIDE OF DASHBOARD



Dr. Clark Beck, Sr., P. E.

Wright STEPP Founder & Retired Assistant Dean

“STEM: Then and Now.....Why and How”

Clark Beck was born and raised on a farm near Marion, Indiana. His elementary education was in one-room schools. He graduated from Marion High School and attended Virginia Union University (B.S. - Math) on an athletic scholarship. He finished at the University of Cincinnati with degrees in Mechanical Engineering, Aerospace Engineering and honorary Doctor of Science in 2003.

He did co-op work at Wright-Patterson Air Force Base (W-P AFB) and served for thirty years in various R&D positions. During those years, he was an adjunct instructor teaching mathematics and technical courses at Central State University and Sinclair Community College. In 1985 he joined Central State as an Associate Professor and went to Wright State University (WSU) in 1987 as Assistant Dean of the College of Engineering and Computer Science where he designed and implemented Wright STEPP (Science, Technology, Engineering Precollege Program) serving women and minority students in the Dayton Public Schools. Wright STEPP is a summer program conducted on the WSU campus to prepare 7th through 10th grade students for math and/or science based college programs and careers.

Dr. Beck is an involved volunteer on the local community and national level. He serves on Boards of the University of Cincinnati Foundation, United Way of Dayton, Dayton Fair Housing Center, Good Samaritan Health Foundation, Dayton Area Red Cross and City Environmental Advisory Board and Transportation Improvement District.

Clark is past president of several organizations including the Engineers Club of Dayton, the Ohio Society of Professional Engineers, Dayton Engineering and Science Foundation, Engineering Science Hall of Fame, Montgomery County Planning Commission, the Engineers Foundation of Ohio and Vice-President of the National Society of Professional Engineers.

He is a Life Member and Fellow of the American Society of Mechanical Engineers, National Society of Professional Engineers and the Society for Technical Communication, a Distinguished Alumnus of the University of Cincinnati, and the American Society for Engineering Education.

Dr. Beck's presentation will focus on STEM consideration with specific references to a very successful pre-STEM program. It will discuss the environment and need three decades ago, the challenges of the times and the design of the program. Why STEM was needed then and why it is needed today to remove the barriers to women and minorities in the STEM career fields will be discussed. The measures of success will be presented.

NATIONAL CHEMISTRY WEEK

Thank you for another successful year!

Quiet on the set...action! We are all familiar with the words directors use to begin filming a movie or taping a TV show. We all love watching all the special effects and amazing

stunts. Highlighting what makes some of the effects and stunts possible...what goes on "*behind the scenes*"...was the focus of National Chemistry Week this year.



National Chemistry Week is an annual community outreach program hosted by all 189 American Chemical Society local sections. It is designed to show how chemistry supports everyone and contributes to our quality of life and the nation's economy. This year, chemists from all over the community, were brought together to help celebrate by leading chemistry demonstrations all over the Greater Cincinnati Area.

This celebration and activities would not be possible without the support of our sponsors: Cognis, Givaudan, Procter & Gamble, and Wright Brothers, Inc.. Their donations contributed to inserts in the Cincinnati Enquirer through Newspapers in Education (NIE) which was coordinated by Kathy Gibboney and much needed sub-zero supplies for demonstrations at the Cincinnati Museum Center. Also, thank you to Jamie Heimkreiter, who coordinated our local ACS section NCW national poster contest. We will celebrate our winners at our April meeting.

We had chemistry presenters at 17 Hamilton county libraries, 8 libraries outside Hamilton County and the NKU SAAC group covered 6 Northern Kentucky libraries! Jackie Thomas coordinated library presenters and ordered the *Celebrating Chemistry* handouts. Ed Escudero led the Chemistry Demonstration preparation workshop on Oct 5th at Summit Country Day High School. Lead library presenters included: Sue Buescher, Ed Escudero, Gloria Story, Kristi Filter, George Rizzi, Justine Crutchfield, Henry Na, Susan Hershberger, Matt Linser, Xuefei Guo, Jackie Thomas, Laurie Breyfogle, Barbara Alexander, Ariel Lebron, Donna Wiedemann, Darla Kettenacker, Hong Zhang, Bill Crawford, David

Wilson, Mary Stroud & Xavier Students, Nicole Adams & Miami Chemistry Society Students, Christa Currie, Al Conklin & Wilmington College Students, and the NKU SAACS.

This year Ed von Barga had the opportunity to give a live on-air Chemistry Demonstration featured on WCPO Channel 9 News! The segment was aired on October 19th and highlighted the joint efforts of the Cincinnati ACS section and the libraries in the local community celebration of NCW. Thank you to Emily Baute, Public Library of Cincinnati & Hamilton County Public Relations, for setting up this segment.

Providing demonstrations at the Cincinnati Museum Center (CMC) on the Friday and Saturday of NCW is a long-standing tradition for our section. Chemists and engineers from P&G, Miami University (MU), Wilmington College (WC), and the University of Cincinnati (UC), along with volunteers from the Boy Scouts of America (BSA) celebrated in the CMC's Rotunda and the Duke Energy Children's Museum lobby. The Museum team included: from P&G - Gloria Story, Ed von Barga, Carrie Furnish, Brandon and Teri Dunphy, Kristi Fliter, Michele Mangels, Matt Lynch, Julie Mathews, Heidi Hsieh, and Bonny Lui; from MU - Susan Hershberger; from WC - Al Conklin, Kristen Matuch, Darlyne Crawford and Trever Stutz; from UC - Michael Story and Tim Schafermeyer; and from Ft. Hamilton, OH BSA Troop 956 - Austin Hiler, Aaron Adams, Colton Gebhart, and Kitty Vanderpool. One of the highlights for demos, the interaction of matter with liquid nitrogen, is made possible by a generous donation from Roza Vilner of Wright Brothers, Inc.; faithfully delivering a 230 L liquid nitrogen dewar! Shrinking balloons, banana hammers, frozen polymers and flowers amazed students, teachers, and families. Lots of bubbling and fog were enjoyed thanks to a shipment of dry ice from P&G's Miami Valley Innovation Center. Ghostly floating bubbles, a dripping faucet of fog bubbles, and a witchly cauldron brimming with fog gave clues to what makes creepy movies so...creepy. A real crowd-pleaser was Ed's barfing pumpkin demo...it was just amazing what a little Joy dish liquid, pool shock, and a dash of KI can do inside a ghoulish pumpkin! The Museum of Natural History and Science lent the team the use of their tesla coil - a nearby fluorescent light bulb made a great replica of a Star Wars light saber. Moving on to Harry Potter, Susan's demo on making caviar with carrot or strawberry purée and a cross linking reaction of sodium alginate with calcium chloride was very reminiscent of the wonderful world of Bertie Bott's Every Flavor Jelly Beans. Another fun

(Continued on next page)

demo, provided by

(Continued from page 2)

Following the poster session and dinner, in which a total of 70 posters were presented, Professor Wuthrich was given the plaque and \$1K honorarium from the local section, which is to be donated to the Scripps Faculty Club. After the award presentation, Professor Wuthrich introduced a number of his former collaborators that had presented earlier in the day. Professor Charles Weissmann, an internationally recognized scholar and member of the Royal Society and the National Academy of Science, gave his presentation "A Tale from Two Cities."

In his talk, Professor Weissmann told the story of the collaborative efforts between his group and that of Dr. Wuthrich, wherein they elucidated the nature of the agent that causes transmissible spongiform encephalopathies. The infectious agent or "prion" has been implicated in Mad Cow, kuru and Creutzfeldt-Jakob disease. The resounding success of this event is due in large part to Kim Carey, Bill Heineman, Al Bobst, Michael Haven, and Cynthia Schroll. This event would not be possible without their expert organization, hard work and attention to detail.

Thanks to everyone who contributed to making our celebration of National Chemistry Week in October very successful, fun, and educational. I want to recognize our industrial sponsors, Givaudan, Cognis, P&G and Wright Brothers, our partners institutions, the Cincinnati Museum Center, the Public Library of Cincinnati and Hamilton County, the Cincinnati Enquirer and Newspaper in Education. Special recognition goes to NCW coordinators Jacqueline Thomas, Gloria Story, Jamie Heimkreiter, Kathy Gibboney, and Susan Hershberger. I also want to thank Becky Cohn and Emily Baute from the Public Library of Cincinnati and Hamilton County for their continued close collaboration and support. On October 19th, a live Chemistry Demonstration segment was done by Ed von Bargen (*demonstrator extraordinaire*) on the WCPO Channel 9 News at noon thanks to Emily's PR efforts.

"Men love to wonder, and that is the seed of science" – Ralph Waldo Emerson

I look forward to seeing you at the December meeting at Xavier University

-Victor Arredondo



(Continued from page 5) Kristi, was the mysterious floating/sinking beads in a one liter bottle...quite a conversation piece and a helpful lesson on density and buoyancy!

All the activities at the CMC wouldn't be possible without the cooperation of Regina Hall from the CMC's Museum of Natural History and Science, Claire Pollock from the CMC's Duke Energy's Children Museum, and Garland Curry and all the public safety and visitors' service staff at the CMC. Thank you! Next steps? Four quarterly events to celebrate 2011 – the International Year of Chemistry...stay tuned and if anyone wants to join the team...contact Gloria Story (story.gm@pg.com).

Thank you ALL who worked "behind the scenes" of 2010 NCW. We know our volunteers could not be out there in the local community without the liquid nitrogen, dry ice, other supplies, supportive businesses, bosses, co-workers, families, and friends. Thank you for the great community effort, and as always, we will do it again next year! If you were involved and your name was unintentionally omitted, let us know; we do thank you and we will mention your name in our next issue. If you would like to join the fun next year, please watch for announcements next summer.

Reported by Jackie Thomas and Gloria Story



In other National Chemistry Week action, University of Cincinnati students and Miami University students demonstrated fun chemistry and Charles Law for football fans prior to the annual University of Cincinnati and Miami University Football

game this year held at the University of Cincinnati on October 9th. As Celeste Alvarez of Miami University shrank the balloons in liquid nitrogen they re-inflated in the warm air while Papri Bhattacharya, Meghan Wagner and Chau Phong of the University of Cincinnati looked on. Later in the evening the University of Cincinnati inflated their score and won the game.

-Susan Hershberger

SPONSORS SOUGHT FOR 8 SECTION MEETINGS IN THE 2010-2011 PROGRAM YEAR

Again we are seeking sponsors for each of our 8 monthly Section Meetings in the new program year. Sponsorship entails a commitment of sponsorship (cash or cash equivalent) of \$1000 to essentially pay for the many expenses associated with a quality meeting to be presented to the membership. These expenses include retiree and student meal discounts, speaker's expenses, travel, housing, food, A/V, room rental for the meeting, and a Social Hour where attendees can meet others and build networks and contacts for career growth and enhancement.

Sponsors are recognized in all of the eight yearly issues of CINTACS, and by introduction at the sponsored meeting. This "advertisement" is of great value, especially to new companies in the Cincinnati area. In several instances this has led to participation in governance activities in the Section.

Over the past six years of this successful program, companies, academic departments, retirees, and faculty have been sponsors of monthly meetings. We are always striving to broaden the base of sponsors as this leads to better representation in Section programs and services to the membership.

If you or your employer has an interest in being a sponsor, please contact the undersigned for more details. Beyond these volunteers, we will be making phone calls and letter contacts to reach our goal of eight sponsors. Every effort will be made to align the Sponsor's areas of interest with our monthly topics.

Currently contact Dan Esterline at:
Daniel.Esterline@Thomasmore.edu

[for Ted J. Logan, CHAIR
Sponsorships and Solicitations Committee
Cincinnati Section, ACS]

Nominations for Cincinnati Chemist of the Year and Research Associate of the Year

Recognize your colleagues and co-workers for their outstanding contributions to our field. Please submit a nomination for Cincinnati Chemist of the Year or Research Associate of the Year. The nomination deadline is **December 31**.

The Chemist of the Year should hold a terminal degree and must be a member of the Cincinnati section of the ACS. Nomination requires two letters of recommendation and the nominee's CV.

The Research Associate of the Year must be or have been a practitioner within the chemical discipline. ACS membership is not a requirement. Nomination requires a letter of recommendation; CV and additional documentation are optional, but appreciated.

Nomination materials should be sent to:

Dr. Victor M. Arredondo
Procter & Gamble
Sharon Woods Technical Center
Building C, Room C1A09D
11530 Reed Hartman Highway
Cincinnati, OH 45241

Tel. +1513-626-0242
Fax +1513-626-1313
arredondo.vm@pg.com

Recently three former P&G chemists passed away: Drs. Herbert Smitherman, Gail Engerholm and Robert Coots. The three were prominent members of the P&G research community and friends to many ACS members. Their obits were all published in the Cincinnati Enquirer.

-George Rizzi

2011 is the International Year of Chemistry

The International Year of Chemistry 2011 (IYC 2011) is a worldwide celebration of the achievements of chemistry and its contributions to the well-being of humankind. Under the unifying theme “*Chemistry—our life, our future,*” IYC 2011 will offer a range of interactive, entertaining, and educational activities for all ages. The Year of Chemistry is intended to reach across the globe, with opportunities for public participation at the local, regional, and national level.



The goals of IYC2011 are to increase the public appreciation of chemistry in meeting world needs, to encourage interest in chemistry among young people, and to generate enthusiasm for the creative future of chemistry. The year 2011 will coincide with the 100th anniversary of the Nobel Prize awarded to Madame Marie Curie—an opportunity to celebrate the contributions of women to science. The year will also be the 100th anniversary of the founding of the International Association of Chemical Societies, providing a chance to highlight the benefits of international scientific collaboration.

IYC 2011 events will emphasize that chemistry is a creative science essential for sustainability and improvements to our way of life. Activities, such as lectures, exhibits, and hands-on experiments, will explore how chemical research is critical for solving our most vexing global problems involving food, water, health, energy, transportation, and more.

In addition, the Year of Chemistry will help enhance international cooperation by serving as a focal point or information source for activities by national chemical societies, educational institutions, industry, governmental, and non-governmental organizations.

For more information about the goals, activities, administration, and timeline of IYC 2011, please visit www.chemistry2011.org.

The IYC 2011 is an initiative of IUPAC, the International Union of Pure and Applied Chemistry, and of UNESCO, the United Nations Educational, Scientific, and Cultural Organization. It involves chemical societies, academies, and institutions worldwide, and relies on individual initiatives to organize local and regional activities.

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