

# CINTACS



Newsletter of the Cincinnati Section of the American Chemical Society

March, 2007  
Vol. 44, No. 6

## Meeting Calendar

- Mar. 14 Shirley Corriher  
Beckett Ridge CC  
(joint w. Dayton Section)  
Chemical Information  
Discussion Group
- Apr. 19 M. Sarquis/L. Hogue  
Teachers Night  
Northern Kentucky U.
- May. 23 Party Night  
HofbrauHaus  
Newport, KY

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Section's Home Page:

<http://www.che.uc.edu/acs>

## March Monthly Meeting

### "The Secrets of Food Revealed"

Shirley Corriher

#### Abstract

The great adventures behind the scenes in cooking. Shirley will tell her latest discoveries, adventures, and misadventures dealing with the chemistry of food and recipes—everything from keeping green veggies green to "The Saga of the Great American Pound Cake."



#### About the Speaker

Most people recognize Shirley as the "Mad Scientist" on *Good Eats* TV show. She has appeared on: *Good Eats*, *Smart Solutions*, *Sara Moulton Cooking Live*, *Homecooking*, and *Nathalie Dupree*, to name a few and once on ABC's *Jimmy Kimmel Live* with *Snoop Dog* as her fry chef.

Shirley Corriher was The Best Cooking Teacher of the Year In *Bon Appétit's* "Best of the Best" Annual Food and Entertaining Awards, 2001. In March 2004, Shirley received the prestigious *Research Chefs' Holleman Award* for outstanding achievement in technical communication. She is also in *Who's Who of American Women*, 2002 through present, and *Who's Who*.

She has long been a leading food writer and syndicated columnist. Her book, *CookWise* was the James Beard Awards winner for Best Reference and Technique Book of 1997 and has sold over 200,000 copies. Shirley was a contributing editor and wrote a regular column for *Fine Cooking* for 10 years, 1994 through 2004, and she continues to write a regular syndicated column in *The Los*

(Continued on page 4)

**THE CINTACS NEWSLETTER****Vol. 44, No. 6 March, 2007**

Editor.....Bruce S. Ault  
 Advertising.....Ed Hunter

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**From the Chair**

As an organic chemist (turned flavor chemist) I am especially pleased to introduce our March meeting guest speaker, Shirley Corriher of Atlanta. Educated as a chemist with a B.A. from Vanderbilt Shirley has used her chemistry background to educate thousands of cooks on the science underlying everyday cooking. As she says, "You can't be a great cook without understanding the chemical properties of food and how it interacts with other variables, such as temperature, time and the type of cookware used". Shirley is a nationally recognized personality (details in this CINTACS), a popular speaker and the author of a best-selling book, *Cookwise: The Hows and Whys of Successful Cooking* (Morrow, 1997). In addition she is currently a well known culinary consultant and has worked with luminaries such as Julia Child and Roland Mesnier, the White House pastry chef. This is a return visit for Shirley, the last time was for our highly successful January meeting in 2002. I look forward to her return visit and I urge that you come and bring a friend or spouse for an entertaining and educational evening.

The March meeting will also include a Chemical Information Discussion Group (Edlyn Simmons, Chair) and will feature a food-related presentation by Bartow Culp of Purdue University (see page 4 for more details on Culp). The Section thanks the Advanced Testing Laboratory and Iota Sigma Pi (Radium Chapter) for sponsoring the March meeting at Beckett Ridge CC.

Looking ahead, April is the time when our Section traditionally pays homage to local K-12 students and science teachers. Once again we thank Northern Kentucky University for sponsoring this event scheduled for Thursday April 19<sup>th</sup> at NKU. Mark your calendars now!

Also, just as April showers bring spring flowers, it's time to be thinking about next years' meeting program. Now's a good time to send in your thoughts about future speakers, programs, venues etc. to John Janusz ( 1<sup>st</sup> Vice Chair and 2007/2008 Program Chair).

And finally, election time is almost upon us. Soon our Nominating Committee will have prepared a slate of candidates for Officers and Executive Committee members for 2007/2008, and you will be mailed a paper ballot to make your choices. I urge each of you to vote in our election, as everyone knows, EVERY VOTE COUNTS.

Hope to see each of you at Beckett Ridge on the 14<sup>th</sup>.

George Rizzi, Chair

**March Monthly Meeting  
Wednesday, March 14, 2007**

**Beckett Ridge Country Club  
joint meeting with the Dayton Section of the ACS, and  
Iota Sigma Pi**

**Sponsored by Advanced Testing Laboratory**

*Featured Speaker: Shirley Corriher*

**Program**

- 5:30 – 7:00 pm      Registration
- 5:30 – 6:30 pm      Chemical Information Discussion Group, Beckett Ridge Conference Room  
Bartow Culp, Purdue University (*see page 4 for details*)
- 6:00 – 7:00 pm      Social Hour: The bar will be open from approximately 6:00 until the conclusion of  
Dinner. Each guest will receive 1 ticket, which they will be able to use for *Beer or Wine*.  
A cash bar will be available for those desiring to purchase an additional beverage. Soft  
drinks are available without charge.
- 7:00 - 8:00 pm      Dinner, Menu: Option 1: Seared Salmon with Tomato Butter and Rice Pilaf  
Option 2 : Chicken Cordon Bleu with Creamy Sage Sauce with Oven Roasted Potatoes  
\$20.00 (\$10.00 students, emeritus, unemployed and new members)  
*both dinner options come with Fresh Vegetable Medley, Tossed Garden Salad –dressing  
on the side, Dinner Rolls with butter, dessert: Turtle Cheesecake (cheesecake with  
pecans, chocolate and caramel sauce) Beverages: Water, coffee or iced tea.*
- 8:00 pm              Meeting and Featured Speaker, Dr. Shirley Corriher

**Dinner Reservations:** The meeting reservation form is online at <http://www.che.uc.edu/acs/cinacs.html>. This is the best and easiest way to register and indicate your dinner option. As a lesser alternative, you may send your reservations by email to [kim.carey@uc.edu](mailto:kim.carey@uc.edu). If it is absolutely impossible for you to make reservation via the internet, call 513-556-0293 (please leave name, affiliation, dinner option, a contact phone number and state if you are in one of the ½ price categories). Deadline for reservations is 12:00 noon on Friday, March 9.

**Directions:**

**From North :** Take I-75 South to Exit #19 (Union Center Boulevard). Turn right as you enter **Union Center Boulevard** and drive West (headed toward Fairfield) for ca. 2 miles to **Beckett Road** (stop light). Turn right onto Beckett Road and follow up hill (ca. 0.9 miles) to the next right which is **Beckett Ridge Boulevard**. Turn right onto Beckett Ridge Boulevard. The Country Club entrance is on the right approximately 1 mile from the intersection. Drive slowly and watch for the **small Country Club** sign on your right. The driveway into the Club runs up a steep incline and the main building is situated at the top of a hill. Ample parking is available just to the right of the main Clubhouse building.

**From South :** Basically the same as above. Take I-75 North to Exit #19 (Union Center Boulevard). Turn **left** as you enter Union Center Boulevard and drive West (headed toward Fairfield). Follow additional directions as given above.

## Chemical Information Discussion Group

Bartow Culp  
Chemistry Librarian, Purdue University

### Abstract

#### *Death in the pot: One hundred years of bad food and good chemistry*

The chemical analysis of food for adulterations assumed increasing importance with the start of the industrial age, almost simultaneously with the rise of chemistry as a discrete science, and has remained an important field to this day. Two chemists, Frederick Accum, a soap-boiler's son from Germany, and Harvey Wiley, an Indiana farm boy, lived nearly a century apart, but were both tireless campaigners against adulterations in food and drugs, but to quite different effects. For the sake of his beliefs, Accum had to flee his adopted country of England, whereas Wiley's effective crusades led to the passage of the Pure Food and Drug Act of 1906. We will look at the lives of these two interesting characters, and at the sometimes alarming things that were added to food and how they were detected

A little  $\text{CuSO}_4$  on your haricots verts, m'sieur?

### About the Discussion Group Leader

Bartow Culp has spent about equal time as a Townie and a Gownie in his career as a chemist and librarian. After receiving his B.S. in Chemistry at the University of South Carolina, he continued his studies at the University of Delaware with Dr. James A. Moore, where he received a Ph.D. in Organic Chemistry. After spending 9 years in Academe, he joined the Technical Information Service of the 3M in St. Paul, MN, where he specialized in chemical database construction and information retrieval. He jumped back over the academic wall in 1995 when he became the Chemistry Librarian at Purdue University in West Lafayette, IN. He is a



member of the ACS, the Special Libraries Association, and Librarians Without Borders. His research interests include new modes of information instruction, the history of chemical literature and how to make a good creme brulee.

## Special Day for Teachers at CERMACS

A special day, Sunday, May 20<sup>th</sup>, is being planned for chemical educators as part of the regional ACS meeting. There will be a three-hour hands-on session at Northern Kentucky University in the morning. Teachers will be able to choose among such options as computer molecular modeling, food chemistry, and data acquisition with probes and sensors. A box lunch will be served. Then we will drive over to the Northern Kentucky Convention Center to attend a public afternoon session that features Bill Jensen, a renowned chemical historian, as well as three nationally known chemical demonstrators – David Katz, Al Hazari, and John Fortman. During the afternoon session, a high school teacher will be recognized as regional teacher of the year. Information concerning registration will be available soon. Mark your calendars now!

On January 24<sup>th</sup>, twenty-five teachers gathered in Julie Hust's classroom at St. Xavier High School to experience POGIL activities. If you missed the evening, you can learn more about POGIL and download activities at the website ([www.pogil.org](http://www.pogil.org)). There will be a POGIL workshop at the Middletown branch of Miami University on April 28<sup>th</sup>.

(Continued from page 1)

*Angeles Time Syndicate's Great Chefs Series* (1998-present), now the Chicago Tribune's Media Services.

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## Chemists Celebrate Earth Day (CCED), April 21, 2007 – “RECYCLING – CHEMISTRY CAN!”

Greetings fellow members and volunteers! I would like to first introduce you to Emily Adkison. She has graciously and enthusiastically agreed to be the new CCED Coordinator for the Cincinnati Section. Emily works at Procter & Gamble, she and a couple of coworkers, Laurie and Linda, took care of the NCW program at Hyde Park last year; a very nice NCW picture of Laurie and child was published in “Your Hometown Enquirer”. Also, Emily was instrumental in organizing and executing our NCW event at Home Depot in West Chester as well. Welcome Emily!!


For the past 2 years we have participated in the Earth Day Event organized by the Greater Cincinnati Earth Coalition, a community of non-for-profit organizations, businesses, government agencies and individuals from the Tri-State area. Starting this year we have Emily will take the lead this event, I will be working closely with her providing any pertinent information, coaching her if needed and lending any help she may need during the event.

We would like to invite you to join the CCED team, the Earth Day Event will take place by the Ohio River at Sawyer Point and it is very family oriented and great fun! Last year we had a balmy, sunny day, we really enjoyed talking to many kids and parents that stopped by our booth. Please consider participating as a “roadie” or as a member of the planning committee; we need your talents, your energy and your ideas. We also welcome and appreciate any chemistry demos for this year’s theme. Please contact Emily Adkison, CCED Coordinator, at [adkison.e.1@pg.com](mailto:adkison.e.1@pg.com), or (513) 626-0219. Thank you!!

Victor Arredondo, NCW Chair

## Call for Nominations for Outstanding Service Award

Nominations will be accepted for the Cincinnati Section Outstanding Service Award until Thursday, April 19, 2006. The nominee should have performed an extraordinary service to the Cincinnati Section. The nominator should be a member of the Section. A complete nomination consists of a letter written by the nominator detailing the reasons the nominee is deserving of the award, and at least one supporting letter by another member of the Section. Nomination materials should be sent to: James W. Hershberger, Cincinnati ACS Awards Committee Chair, Department of Chemistry and Biochemistry, Miami University, Oxford, OH 45056. Alternatively, materials can be sent by email ([hershbjw@muohio.edu](mailto:hershbjw@muohio.edu)) or fax (513-529-1675).



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## National Chemistry Week 2006 - "Your Home – It's All Built on Chemistry"!!

Last year we had another fantastic National Chemistry Week (NCW) program. Building upon the success of previous years, the program expanded to a *total of 50 different NCW events* in locations all over Cincinnati, Northern Kentucky, Eastern Indiana, and Greater Cincinnati!! We were at many public libraries, at the Cincinnati Museum Center (CMC), at a home building retail store, and in the basement of a church! In all, we *directly*

*reached over 2000 people*, mostly children, all of which had fun and learned something new about chemistry and its importance. In addition, we *reached countless children and adults* through our ChemLuminary award-winning *Newspaper in Education (NIE)* program with the Cincinnati Enquirer/Post with four days of quarter-page ads on this year's theme. The newspaper was distrib-



Child at Middletown Library shows up his gooey slime (courtesy of Bill Crawford).

uted *free of charge* to schools in the Tri-State and featured the "Your Home – It's All Built on Chemistry" theme in their website (<http://www.cincinnati.com/nie/chemistry/>). All the NCW events were publicized through the Cincinnati ACS local section (<http://www.che.uc.edu/acs/cinacs.html>), the Public Library of Cincinnati and Hamilton County, the Cincinnati Museum Center web sites, the Cincinnati Enquirer's event calendar listing and through flyers distributed via e-mails to libraries and schools.

"Your Home – It's All Built on Chemistry" theme gave us a unique opportunity to present a wide range of chemical principles and relate their importance and benefit to our society in a very tangible way. It was absolutely clear to me that the

children and adults I interacted with during NCW understood how CHEMISTRY is essential to the development of ubiquitous items found in every house and how this science makes life much easier and comfortable for each one of us. In the paragraphs below I share highlights and stories of the many events our talented and dedicated volunteers led throughout the Tri-State:



Experiencing the "Bubble House" outside the Children's Museum at the Cincinnati Museum (courtesy of Jamie Heimkreiter)

- Thermal insulation was demonstrated at Corryville Library by monitoring the temperature of cold water samples wrapped with various different insulating materials. At Pleasant Ridge and North Central libraries it was done by observing the melting rate of wrapped ice cubes. A thermal camera was used at College Hill, Avondale and Groesbeck to "see" thermal insulation at work. The kids certainly understood the benefits of having a properly insulated house during the cold days of fall and winter.
- Children at Deer Park, Norwood, and Home Depot learned about paint, made different color paints and painted houses on paper or Styrofoam cups. How smoke detectors work was explained at Walnut Hills and Miami Township libraries, while fire extinguishers were demonstrated at Mason.
- *Polymers, polymers, polymers.....* in all kinds of products. At Home Depot and Living Waters Church home building objects made of PVC, PET, Nylon, Cellulose and Polyurethane were displayed each accompanied by their chemical structure. Polymers were also discussed with "kid-mers" and made using "Mountain in Minutes". The latter was a great hit, as the polymer grew so did their eyes in amazement as well!! The children also experienced bulk properties such as hardness, flexibility, bounciness, etc. and had also the opportunity to make their own slime or play-dough and take it home.

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## Poster Contest Winners

### "Your Home- It's All Built on Chemistry"

Here are the 2006 winners of the poster contest sponsored by the Cincinnati Section of the American Chemical Society:

4th grade: **Moriah Coman** from the CHCA Otto Armleder Memorial Education Center in Cincinnati, OH. Her teacher is Mrs. Cepress.

5th grade: **Blake Gay** from Taylor Mill Elementary School in Covington, KY. His teacher is Mrs. Muzny.

10th grade: **Jamee Bender** from the Seven Hills School in Cincinnati, OH. Her teacher is Ms. Paddock.

The Cincinnati Section of the American Chemical Society has once again sponsored a chemistry contest as a part of National Chemistry Week. This year the contest was based on the role of chemistry in "Your Home – It's All Built on Chemistry." The challenge was to create a poster that could serve as a public service announcement emphasizing the role of science/chemistry in the home and/or home safety improvements over the years (e.g. building materials, materials of which homes are made, home safety through chemistry, homes from different periods in history and different cultures, homes that use green chemistry in their design and function).

The local ACS section elementary contest committee has selected one winner from each grade category K-2<sup>nd</sup> (no entries submitted), 3<sup>rd</sup>-4<sup>th</sup>, 5<sup>th</sup>-8<sup>th</sup> and 9<sup>th</sup>-12<sup>th</sup>.

Winners of the Cincinnati Section of the ACS along with their teachers and parents will be honored as guests of our local section's Teacher's Night Awards Banquet dinner meeting in April 2007, at Northern Kentucky University. The Cincinnati Section ACS has submitted the local winning poster in each of the three grade categories to the National ACS Office of Community Activities in Washington, D.C. All of these winning posters will be displayed during the 233rd ACS national

meeting in Chicago, IL, March 25-29, 2007. One national winner and one national honorable mention will be selected for each grade category during the meeting for national recognition and prizes.

Educators, thank you for encouraging your students to participate in this contest. No one ever stands so tall...as when they stoop...to help a child.

American Chemical Society  
Cincinnati Section  
NCW Poster Contest Committee

## Retired Chemists Committee (RCC)

Since 2003, the Retired Chemists Committee has presented chemistry demonstrations to many local 5<sup>th</sup> and 6<sup>th</sup> grade classes.

In 2006, 8 Ph. D. chemists and chemical engineers demonstrated experiments in gaseous and solid CO<sub>2</sub>, liquid nitrogen, an orange juice chemical clock reaction, red cabbage extract pH changes and invisible ink to 30 classes of about 650 students in the Winton Woods school district, where students are 70% African-American. Over 150 hand written thank you notes were received from the students and 5 school principals recognized the RCC activity as the outstanding outreach educational program in 2006.

Demonstrations were also given to six 6<sup>th</sup> grade classes in the Finneytown school district and to 150 girl scouts from Delhi's Rapid Run elementary school.

We decided to give demonstrations to individual classes to provide lots of hands on opportunities for students and to maximize their learning. We spent about 6 weeks planning and conducting these experiments.

The RCC outreach educational activity was featured in an article on senior chemists in the July 24, 2006 article in C&E News, and we also applied for a ChemLuminary Award from the ACS.

Ralph Damico

(Continued from page 6)

- October 2006 marked the 60<sup>th</sup> year since the introduction of Tide by P&G. In connection to the designation of Ivorydale Technical Center as a National Chemical Landmark during NCW, a “Bubble House” was demonstrated using a kid wadding pool, hula hoop, concrete block and bubble solution outside of the Children’s Museum at the Cincinnati Museum Center. Children had a great time and proclaimed that the bubble house to be “AWESOME”.



Ed Vonbargen doing demonstrations with liquid nitrogen at the CMC (courtesy of Jamie Heimkreiter)

- Chemiluminescence was discussed and demonstrated at a number of venues. It was also explained how light is composed of red, yellow, green and blue light and each one has different energy. Phosphorescence was shown using different color LEDs, glow sticks and two kinds of glow in the dark vinyl tape. Fluorescence was also shown with a fluorescein solution and LED’s. Participants took home a sample of a glow in the dark tape made with strontium oxide aluminate doped with europium to test phosphorescence “life” at home.

- Copper, iron, aluminum..... Home building objects made with METALS were shown at Home Depot and Living Waters Church. Their electrical conductivity was demonstrated with a conductivity tester and compared versus insulators, e.g. plastic

coating of copper wires, at Pleasant Ridge and North Central libraries.

- In the rotunda at the Cincinnati Museum Center, several hundred people came up-and-close with Gloria Story’s thermal camera. Volunteers demonstrated the thermal insulating properties of different materials such as wood, polymers, aluminum, etc. and explained why certain materials are preferred for the construction of



Understanding Polymers at the Middletown Library (courtesy of Bill Crawford)

houses. Audiences also learned about exothermic and endothermic reactions and how they are used to create products we use, such as ThermaCare® heat wraps. A very exothermic reaction was dramatically demonstrated when a solution of hydrogen peroxide containing a little bit of Dawn® was decomposed with potassium iodide inside of a Jack-O-Lantern. Also, a simple, but very illustrative hands on activity was performed by the public: driveway salt was mixed with water in one zip lock bag (exothermic) while baking soda was mixed with water in a second zip lock bag (endothermic). The use of the thermal camera really made this simple experiment come alive and gave the participants another way to understand the concepts other than by touching the bags. At the Covington Library, Home Depot and Living Waters Church the audience was amazed when an egg was literally cooked using the “Eggs-O-Thermic” reaction of calcium oxide with water.

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Many classic demonstrations with dry ice (floating bubbles, blowing up gloves, and red cabbage juice with baking soda pH experiment) and liquid nitrogen (shrinking balloons and turning bananas into hammers) were also carried out. The elephant toothpaste and Mentos® in Diet Coke® were a great hit at Delhi Public library.



NKU chemistry students did demonstrations in Six different public libraries in Kentucky. (courtesy of Heather Bullen)

Children and adults alike had a lot of fun learning about chemistry. One girl, who attended the NCW event at the Newport Library, had her grandmother take her to the Independence branch so she could see the demonstrations again! We also found out how impactful and memorable many demonstrations can be. For example, at Green Hills Library home schooled kids asked about the PUR® water purification packets used to make murky water potable in regions where safe drinking water is not readily available.

In closing, **A SPECIAL THANK YOU GOES TO EACH ONE OF OUR VOLUNTEERS** who took time from their busy schedules and invested their talents to reach the children in our community. All of you made NCW 2006 a resounding success! I look forward to working with you for NCW 2007. I also want to thank Givaudan, Procter & Gamble, and Cognis for their financial contribution. We also truly appreciate Wright Brothers Inc., Lyondell, Home Depot, the Cincinnati Museum Center, Cincinnati Hills Christian Academy and the Public Library of Cincinnati and Hamilton County for being great partners!

Stay tune for NCW 2007!!

Victor M. Arredondo, NCW Chair

## Project SEED, Summer 2007

For the fifth summer in a row, the Cincinnati Section will participate in the 2007 Project SEED Program, an ACS sponsored program that places economically disadvantaged high school students in academic, industrial, and governmental research laboratories for eight-to-ten weeks during the summer.

The program will build on its success from the past four summers, during which students from Aiken, Hamilton, Jacobs, Purcell Marian, Winton Woods, and Withrow International high schools worked with University of Cincinnati and Xavier University chemistry faculty. This coming summer will involve as many as four students who each will receive a generous stipend while working for 8-10 weeks in local research laboratories under the direct supervision of a mentor.

If you are a high school teacher with a student who might be interested in participating or if you are a practicing chemist (academia, industry or government) who would like to host a student, or make a contribution to the program, please contact the program coordinator, Dr. Suri Iyer at the University of Cincinnati, [suri.iyer@uc.edu](mailto:suri.iyer@uc.edu). Student eligibility and application information are available at [http://www.che.uc.edu/undergraduate/hs\\_research.html](http://www.che.uc.edu/undergraduate/hs_research.html). Participating research sites are expected to contribute a fraction of the stipend for each hosted student.

## Final Listing of Sponsors for the 2006-7 Section Program

We now have a sponsor for each of the 8 Section meetings in the 2006-7 program year. This is the 5th straight year that our generous individual members, academic institutions, and industries have seen the value of sponsorship and stepped forward to fund this important need.

The meeting dates and specific sponsors for

(Continued on page 14)



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## CALL FOR PAPERS

**CERMACS 2007-ACS Central Regional Meeting  
Northern Kentucky Convention Center  
Covington, KY, May 20-23, 2007**

The CERMACS2007 organizing committee invites you to join us for an action packed meeting of science and fun! The meeting, with the theme "*Learn Today...Influence Tomorrow*" will have technical sessions, workshops and poster sessions spanning the breadth and depth of the wonderful world of chemistry. A small sampling of the special symposia planned are:

- **The "Fantastic Four" Science Guys---** Bassam Shakhshiri, David Katz, Al Hazari & John Fortman will amaze and delight you with their demonstrations.
- The real world of CSI Chemistry will be explored in the symposium "**Investigative Forensic Science**" featuring **William Dean, Chief of Forensic Sciences & his team at the Hamilton County Coroner's Office.** Coupled with this symposium is a session on teaching "Forensics in the Classroom"
- The scientific art of "dazzling and sensing" will be explained in multi-day symposia entitled "**Illuminating Molecules**" and "**Chemical & Biological Sensors**"

An ambitious undergraduate and graduate student program is also planned.

- A 2-day graduate workshop "**Preparing for Life After Graduate School**" (PFLAGS) will take place on May 18-20 at Xavier University.
- Workshops and sessions on "**Targeting the Job Market**", "**Resume Preparation**", "**Interviewing Skills**" and "**Going Somewhere?-Career Paths in Chemistry**" are open to all.
- Students will have an opportunity for individual **Resume Reviews.**
- Students are highly encouraged to present their research in the many general and poster sessions that are planned.

**For more information or to submit your abstract, follow the links at [www.cermacs2007.org](http://www.cermacs2007.org)**

For further information, please contact us:

**Technical Program:** Jeanette Krause,  
[jeanette.krause@uc.edu](mailto:jeanette.krause@uc.edu), 513-556-9226

**Exhibits:** Michael Kurutz, [kurutz@MeasureNet-Tech.com](mailto:kurutz@MeasureNet-Tech.com) or Robert Voorhees,  
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## Hans and Marlies Zimmer International Scholar

**Professor Mark von Itzstein  
Griffith University (Gold Coast Cam-  
pus) Queensland, Australia  
Zimmer Scholar In-residence  
April 16-April 21, 2007**

The Department of Chemistry at the University of Cincinnati is very pleased to present the fifth series of lecture visits by international scholars actively engaged in areas of frontier chemical and interdisciplinary research. The purpose of the Hans and Marlies Zimmer International Scholar program is to provide the capability to invite internationally recognized scholars to the Department to spend time with faculty and students. In the process, it is felt that common grounds can be found for ongoing collaborations and exchange of ideas and students. Each year, the faculty of the Department elects and invites a Zimmer Scholar for an extended visit to the Department. In any given year, these Scholars interact intensely with one or several groups within the Department, and new initiatives are established based upon the strengths of the participating groups. The field of expertise of the Scholar is open to all areas of Chemistry. Consequently, over the years, all areas of chemistry are benefiting from these interactions.

The 5th scholar in this series is Professor Mark von Itzstein, Griffith University (Gold Coast Campus) Queensland, Australia. Professor von Itzstein completed his PhD in organic chemistry at Griffith University in 1984, and was awarded an Alexander von Humboldt fellowship to carry out research at the University of Marburg in Germany. His internationally renowned career as a carbohydrate chemist began in the Department of Medicinal Chemistry at Monash University in 1986. Professor von Itzstein



received the Alexander von Humboldt Forschungspreis in 2001, which is awarded to a small number of international scientists annually. In 2002, Professor von Itzstein was awarded a Federation Fellowship, Australia's most prestigious research fellowship. In 2003, Professor von Itzstein was elected as a Fellow of the Australian Academy of Science in recognition of a career that has significantly advanced the world's scientific knowledge in the field of biomolecular science. In February 2000, Professor von Itzstein returned to Griffith University to establish the Institute for Glycomics. This Institute has, as its mission, the task of discovering clinically-useful medicines through intervention of carbohydrate-related disease processes. Information about the Institute of Glycomics can be found at <http://www.griffith.edu.au/centre/glycomics/>

Professor von Itzstein is one of the leading scientists responsible for the design and synthesis of the anti-influenza drug, Relenza®, which has been approved for the treatment of influenza worldwide. As one of the key players in the drug's development, Dr. von Itzstein was awarded the prestigious Australia Prize for Pharmaceutical Sciences in 1996. This discovery is considered to be a significant outcome and flagship in glycotherapeutic drug development in the last century and has further consolidated the world platform of using carbohydrates as drugs and carbohydrate-recognizing proteins as drug discovery targets. Dr. von Itzstein has international standing in glycoscience and drug discovery particularly in the area of anti-infective drug discovery.

One of Professor von Itzstein's major research active areas has been in the field of sialic acid chemistry and biology. Sialic acids and sialic acid-metabolising enzymes have been implicated in many biological roles and, indeed, disease states. Sialidases (enzymes which cleave sialic acids from various glycoconjugates) play important roles in viral and bacterial infections such as influenza and cholera respectively. Another sialic acid-metabolising enzyme, sialyltransferase, is presumed to be involved in metastasis. Professor von Itzstein's current research interests cover various aspects of organic chemistry, carbohydrate chemistry, rational drug design, computational chemistry, and biochemistry, in particular, enzymology. Professor von Itzstein has published over 100 papers and invited reviews and has lodged over 20

*(Continued on page 13)*

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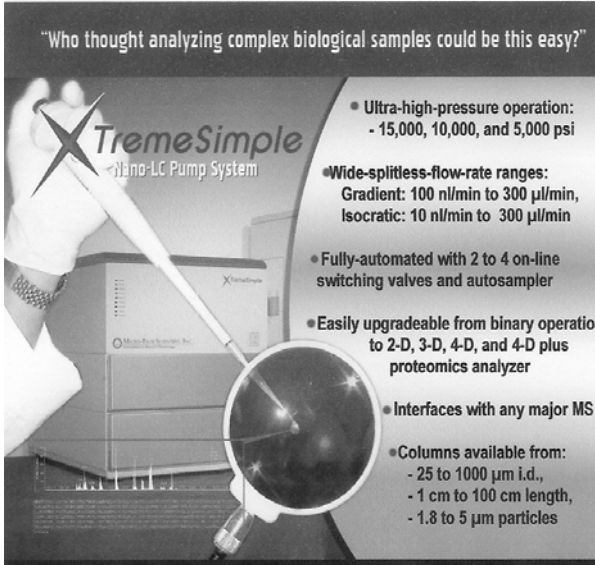
provisional patent applications and 11 international applications in the field of Glycoscience.

Professor von Itzstein has had extensive experience with industry partnerships. Most notable is his long collaboration with the now GlaxoSmithKline Pty Ltd and the development of Relenza™. Professor von Itzstein was invited by GlaxoSmithKline (Japan) in 2000 to participate in the launch of Relenza™ to the Japanese market. More recently, Professor von Itzstein has commenced relationships with the Australian-based companies Progen Industries Ltd and Meditech Research Ltd. In 2003, Professor von Itzstein established the incorporated company Glykoz Pty Ltd. This company has recently attracted \$3 million in investment to commercialize research outcomes out of two patents. These experiences have provided Professor von Itzstein with significant insight into industry expectations and commercialization opportunities in drug discovery.

In the light of the most recent pandemic influenza threat, Dr. von Itzstein has established a research program that is investigating the discovery of next generation anti-influenza drugs. His work involves close collaboration with biologists, clinicians, and industry. Members of the scientific community, faculty and students are invited to attend his presentations and banquet.

Information on the schedule of activities and the banquet can be found at [http://www.che.uc.edu/alumni\\_community/zimmer/default.html](http://www.che.uc.edu/alumni_community/zimmer/default.html)

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each meeting are presented below:

Meeting Date	Sponsor
Sept. 24, 2006	Dr. R. G. Laughlin
October 27, 2006	U. of Cincinnati, Chemistry
November	No Meeting
Dec. 14, 2006	Xavier University, Chemistry
Jan. 18, 2007	Procter & Gamble Company
Feb. 15, 2007	Givaudan Flavors
March 14, 2007	Advanced Testing Laboratory.
April 18, 2007	Girindus America, Inc.
May 23, 2007	Dr. Milton Orchin

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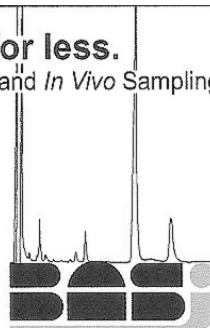
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