# CINTACS



Newsletter of the Cincinnati Section of the American Chemical Society

May 2011 Vol. 48, No. 8

#### **Meeting Calendar**

Party Night @ Jungle Jim's May 17 Dr. Michael Tunick





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#### MAY MEETING Tuesday, May 17<sup>th</sup>, 2011

#### **Oscar Event Center at Jungle Jims** 5440 Dixie Highway, Fairfield, OH 45014

Sponsored by Dr. Robert Laughlin

Featured Speaker. Dr. Michael Tunick Research Chemist, US Dept of Agriculture

Cheese Chemistry

#### **Program**

5:30 - 7:00 pmRegistration 6:00 - 7:00 pmSocial Hour

Wine Tasting and Cheese pairing with assortment of cheeses including recipes and tips.

7:00 - 8:00 pmDinner: Grand Hall South

Served Buffet Style: Italian Stuffed Chicken with Provencal Sauce, House Salad, Green Beans Amandine, Layered Potatoes, Rolls with Butter, Assorted Mini Desserts; Coffee, Tea and Water.

\$25.00 (\$15.00 students, emeritus, unemployed and new members)

Dr. Michael Tunick 8:00 pm "Molecules to Mozzarella: The Chemistry of Cheese"

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#### THE CINTACS NEWSLETTER

#### Vol. 48, No. 8 May, 2011

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 around mid-August for the September 2011 issue.

Electronic submission is strongly preferred. All materials should be sent to to new CINTACS editor.



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#### From the Chair

We had an enjoyable Education Awards Night at our last meeting in April in NKU. We truly appreciated the sponsorship by Girindus America. I want to thank Stefan Paula for making all the arrangements at NKU, to Prof. Al Hazari for a lighthearted and engaging presentation "Chemistry in Comics", to Dr. John Williams for leading Oesper Chemistry Exams, and to Phil Christenson for leading the Teacher of Year Awards.

The second International Year of Chemistry (IYC) outreach event is going to take place on Friday, May 6<sup>th</sup> at the Cincinnati Museum Center; the theme is "Energy - is everywhere". Anyone interested in helping please contact Gloria Story at <a href="mailto:story.gm@pg.com">story.gm@pg.com</a>; it is going to be a blast.

I invite you to our last meeting of the year, "Party Night" on May 17<sup>th</sup>, sponsored by our friend Dr. Robert Laughlin. I encourage you to bring a friend and/or relative and join us at the Oscar Center at Jungle Jims in Fairfield to enjoy wine tasting and cheese and to listen to Dr. Michael Tunick's presentation "Molecules to Mozzarella: The Chemistry of Cheese".

In this my last letter as chair of the section I want to THANK all the members of the Cincinnati Section for your passion for chemistry and your participation in the section activities. I wholeheartedly would like to extend my gratitude to each one of you who helped me through this very interesting and enjoyable 1-year journey as chair. Especial thanks to our Treasurer Ed Hunter for the outstanding job he has done in day-to-day operational expenses and taking care of meeting registrations; to our out-going CINTACS editor Kevin Ashley for gathering and assembling in a timely fashion our newsletter (I am going to miss the emails in Spanish); to Matt Gardlik, our webmaster, for maintaining the website and informing members of upcoming events via email: to our educational outreach ACE Team Gloria Story, Jacqueline Thomas, Susan Hershberger, Jamie Heimkreiter, Kathy Gibboney, and Donna Wiedemann for their passionate and dedicated leadership in bringing chemistry to the public in our communities with the help of a wonderful team of volunteers; to our Awards Committee chair Phil Christenson who graciously stepped in to meet immediate needs the section had and done so fantastically. My appreciation goes to all the committee chairs who led a wide variety of other section activities and to all the section officers; in particular those past section chairs who generously offered me great advice during my tenure: Susan Hershberger, John Janusz, Roger Parker, Phil Christenson and George Rizzi. The great and generous support we received for both our outreach efforts as well as for our section meetings is truly appreciated from: Cognis, Givaudan, Procter & Gamble, Advance Testing Laboratory, Inc., Xavier University, Girindus America, the University of Cincinnati, Northern Kentucky University and Dr. Robert Laughlin.

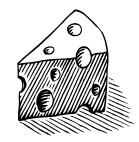
A lot happens in between the picnic held in September and Party Night in May, and WOW it is almost over! It is impressive what our section accomplished the past year. Our meetings had speakers that covered diverse topics: three-

(Continued on page 9)



#### **MAY MEETING**

Tuesday, May 17<sup>th</sup>, 2011
-PARTY NIGHT-





5440 Dixie Highway Fairfield, OH 45014-4108 (513) 674-6000

Featured speaker:

#### **Dr. Michael Tunick**

US Department of Agriculture

"Molecules to Mozzarella — The Chemistry of Cheese"

(Continued from page 1)

**Dinner Reservations:** the meeting reservation form is online at <a href="http://registration.acscincinnati.org/">http://registration.acscincinnati.org/</a>. This is the best and easiest way to register and indicate your dinner option. A less desirable alternative, you may send your reservations by email to <a href="mailto:webmaster@acscincinnati.org">webmaster@acscincinnati.org</a> to register. If it is absolutely impossible for you to make reservations via the internet, call 513-626-0242 (please leave name, affiliation, dinner option, a contact phone number and state if you are in one of the reduced price categories). Deadline for registration is 12:00 noon on Monday May 16<sup>th</sup> 2011.

#### **Directions:**

From NORTH: I-75 South. Merge onto I-275 W. Take the OH-4 exit, EXIT 41, toward Fairfield/Hamilton. Turn SLIGHT RIGTH onto SPRINGFIELD PIKE/OH-4. Continue to follow OH-4N. 5440 Dixie Highway is on the RIGHT.

<u>From SOUTH</u>: I-75 North. Merge onto I-275 W. Take the OH-4 exit, EXIT 41, toward Fairfield/Hamilton. Turn SLIGHT RIGTH onto SPRINGFIELD PIKE/OH-4. Continue to follow OH-4N. 5440 Dixie Highway is on the RIGHT.

# **Molecules to Mozzarella:** The Chemistry of Cheese

**Dr. Michael H. Tunick** U.S. Department of Agriculture

**Summary:** Coagulation of milk, removal of whey, and ripening are all required in making cheese, and chemistry is involved each step. This talk describes the procedure from raw milk to final product, and illustrates the differences between cheese types, including the development of the many flavors in cheese.

**Biographical sketch:** Michael H. Tunick received a B.S. in Chemistry from Drexel University in 1977. He was a student trainee at the Eastern Regional Re-



search Center of the U.S. Department of Agriculture in Wyndmoor, PA, and worked on cocoa butter substitutes from beef tallow. He was hired as a chemist after graduation and performed research on treatment of leather tannery waste with the Hides and Leather Laboratory until 1983, when he was transferred to what is now the Dairy and Functional Foods Research Unit. Tunick pursued a Ph.D. in Physical-Analytical Chemistry on a part-time basis during this period, receiving the degree from Temple University in 1985. He also became a research chemist in that year and was involved in a number of projects, including detection of mislabeled cheese and development of low-fat Mozzarella for the National School Lunch Program. He currently performs research on Hispanic cheeses and extruded whey proteins. Dr. Tunick is Secretary and Past Chair of the American Chemical Society's Division of Agricultural and Food Chemistry.



#### 2011 – The International Year of Chemistry

This year marks the 100<sup>th</sup> anniversaries of Madame Marie Curie's Nobel Prize and the founding of the International Association of Chemical Societies, hence the United Nations declaring 2011 the International Year of Chemistry (IYC). The ACS has organized 4 quarters of themed events to celebrate IYC, with a unified theme of water for the entire year. The first quarter's environmental theme is centered on the importance of water... its sources, purity, and sustainability. The Cincinnati section partnered with the Cincinnati Museum Center's (CMC) Natural History and Science Museum (NHSM) to provide program on March 25<sup>th</sup>. Over 860 students were expected that day. Our demos were visited by probably two-thirds of those kids along with a larger than normal crowd of families due to spring break and a very popular Cleopatra exhibit. The NHSM was also preparing to celebrate NanoDays 2011 the very next day, so we tried to include the "nano" concept in some of our demos.

Brandon Dunphy demonstrated how PuR sachets clean up dirty water for people that don't have access to city supplies. Michele Mangels had columns set up to teach how the earth naturally filters water and why smaller, high surface area sand is better than larger, low surface area pebbles (nano!). Scott Tremain shared the concept of supersaturation/crystallization, which meshed nicely with Brandon's PuR demo. Susan Hershberger brought a 3-sided display to share our IYC poster created by our public relations volunteer, Heidi Hsieh, as well as a map highlighting the local waters in the tri-state. She had kids collecting pH data on local water source samples and with special diffraction grating glasses...the map was in 3D! In the afternoon, Al Conklin and his Wilmington College students set up their "drippy faucet" demo that creates huge soap bubbles filled with carbon dioxide gas...a real crowd pleaser! Downstairs in the Duke Energy Children's Museum lobby, Gloria Story and Victor Arredondo had kids graphing their data on how many drops of water or soap water they could fit on a penny...a really fun surface tension demo. Al Conklin took that one step further with a simple demo with 2 sieves. One had large openings and the other very small. The large opening sieve. when placed over a large beaker of water, allowed the water to empty quite easily when flipped, but it sure baffled the kids when the water wouldn't come out of the beaker when the other sieve was placed on top and flipped over. Jackie Thomas had the kids learning about how water interacts with hydrophilic and hydrophobic surfaces (regular sand vs. "magic" sand). Bill Crawford arrived in the afternoon and started making elephant toothpaste, and just like the leaky faucet upstairs...his demo stole the show! As a matter of fact, Bill returned to the NHSM the very next day to provide demos for the opening of NanoDays 2011 celebrations at the CMC. Many thanks to all our friends at the CMC and NHSM, P&G for 2 coolers of dry ice, and all our demonstration volunteers!

On April 2, Cincinnati Section volunteers returned to the Cincinnati Museum Center and participated in NanoDays 2011. Xuefei Guo, Susan Hershberger, Lynn Hogue, Scott Tremain and Hong Zhang presented the science and technology of large and small molecules by microencapsulating starch or iodine into sodium alginate spheres and studying the reaction with iodine or starch solutions. The colorful (very thin) interference patterns of soap films were also very popular at the Cincinnati Section table. The Chemistry and Science Departments of The College of Mount Saint Joseph also participated in NanoDays 2011 by measuring moles of sugar and other compounds. NanoDays 2011 also featured a balloon sculpture of a carbon nanotube in the rotunda.

Our next events were Earth Day at Sawyer Point on April 16<sup>th</sup> from noon to 5:30 PM and then again on May 6<sup>th</sup> at the CMC from 10 AM to 5 PM, where the theme was "Energy – is Everywhere" (alternative energy sources). The next event will be on August 5<sup>th</sup>, taking advantage of one of their "Free Fridays" where the museums are free from 4 to 8 PM (we'll start at 1 PM). The August theme is all about materials, including nano-materials along with recycling. Finally, IYC ends with our National Chemistry Week celebrations the week of October 16<sup>th</sup>. NCW week theme is all about health – nutrition, hygiene, and medicine. We will return to the CMC October 21<sup>st</sup> and 22<sup>nd</sup> (10 AM to 5 PM both days) but there will be demos all over the tri-state that entire week in many local libraries too. Keep watching our website for details: http://www.acscincinnati.org.

-Gloria Story and Susan Hershberger



Brandon is describing the PuR water cleaning demo



Michele is demonstrating water cleaning using columns of sand, pebbles, and charcoal with a "nano" twist (sand vs. pebbles)



Al Conklin and his Wilmington College students brought back their drippy faucet crowd pleaser!



Scott is preparing to demonstrate crystallization while Susan is having kids measure the pH of local river and tap water samples



Victor stays clear while a mom and child count how many water drops fit on a penny



Bill's "elephant toothpaste" breakdown of peroxide to oxygen and water demo drew the crowds!



Jackie compares how water interacts with sand and "magic" sand



Whoa!!





# Report from Council at the San Francisco ACS National Meeting

Bruce Ault, Kathy Gibboney, Bill Oliver and Roger Parker, Councilors

As is customary, Council heard presentations from the nominees for President-Elect of the ACS presented by the Committee on Nominations and Elections. After the presentations, the Council selected Dennis Chamot and Marinda Wu as candidates for 2012 President-Elect. These two candidates, along with any petition candidates, will stand for election in the Fall national election.

While no major petitions were presented to Council for action at this meeting, Council did voted on several proposals:

The Council voted to amend the charter of the Committee on Technician Affairs to include updated terminology.

The Council voted to continue for three years the current formula for determining allotments to technical divisions.

The Council voted to authorize the formation of the following two new international chemical sciences chapters: the Shanghai International Chemical Sciences Chapter and the Thailand International Chemical Sciences Chapter.

The Council voted to set the member dues for 2011 at the fully escalated rate of \$148, a \$2.00 increase over the 2011 rate. This rate is established pursuant to an inflation-adjustment formula in the ACS Constitution and Bylaws.

Finally, numerous reports were presented orally. The written versions of these reports will appear in Chemical and Engineering News within the next few months.

### SPONSORS SOUGHT FOR 8 SECTION MEET-INGS IN THE 2011-2012 PROGRAM YEAR

We continually seek 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 seven 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.

Please contact Ed Hunter at: edhunter@fuse.net

#### **National Chemistry Week – Call for Volunteers**

The ACS Cincinnati Section will once again be promoting National Chemistry Week (October  $16^{th} - 22^{nd}$ ) throughout the greater Cincinnati region.

This year's theme is "Chemistry – Our Health, Our Future." We would like to increase our efforts this year at the Cincinnati Museum Center, at local Libraries, and at other venues since this is the International Year of Chemistry!

I will contact volunteers in the months to come with more information on National Chemistry Week (NCW) volunteer opportunities, including a date/location for training.

If you are interested in NCW outreach activities, and haven't participated before, please contact me to be included in the distribution list. Also, please pass this information along to anyone you think might be interested!

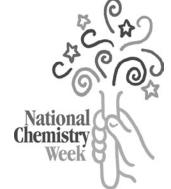
Your National Chemistry Week Contacts

Libraries/Volunteers Coordinator is:

Jackie B Thomas: thomas.jb.1@pg.com

Cincinnati Museum Center Coordinator is:

Gloria Story: story.gm@pg.com



#### Announcement:

# 42<sup>nd</sup> Central Regional ACS Meeting Indianapolis, IN

University Place Conference Center, June 8-10, 2011

A diverse technical program, IYC-themed plenary lectures, poster sessions featuring "Molecular Malt," networking events, even a tour of the Museum of Art's Science Laboratory;

information at: http://cerm\_regional.sites.acs.org

#### A note to members about Ted Logan

Dr. Logan remains hospitalized at the Alois Alzheimer Center in Greenhills, Ohio. Ted is now confined to bed and wheelchair, but still enjoys visits from members. Members desiring to visit Ted should call the Center at (513) 605-1000 or Ted's daughter Patty Logan at (513) 674-7575 prior to visiting.

-George Rizzi

(Continued from page 2)

dimensional structure of biological macromolecules by NMR honoring Nobel Prize winner Kurt Wüthrich at the Oesper Symposium, STEM educational account by Clark Beck, chemical sensors with Bill Heineman, the science of separations by Chemist of Year recipient Apryll Stalcup, synthetic biology by Leonard Katz and learning chemistry through humor with Al Hazari. We sought participation by other technical societies such as National Organization for the Professional Advancement of Black Chemists and Chemical Engineers and the Dayton ACS section. We supported education: 6 Project SEED students thanks to Suri Iyer, Oesper chemistry exams costs and awards thanks to John Williams, two educational grants thanks to Gloria Story, sponsored luncheon with Nobel Laureate Robert Grubbs thanks to Beth Reno and student travel-grants for ACS National meeting thanks to Dan McLoughlin. We recognized and celebrated the accomplishments of chemistry professionals, science/ chemistry teachers and students. We offered training in the form of a short course and we went out into the community with chemistry demonstrations during National Chemistry Week, the International Year of Chemistry, and Earth Day. All of this was only possible through the effort and dedication of Cincinnati section members; everyone WELL DONE. One a personal level, it has been aan honor and a very rewarding experience working with ALL of you during the past year for the benefit of our members and our communities.

Next year, please provide your support to our incoming chair Richard Mullins of Xavier University. My best wishes to Rick as he embarks on a successful and fruitful year for the local section.

- Victor M. Arredondo

# The Cincinnati Section Recognizes its 50- and 60-Year Service Members

CONGRATULATIONS! The following distinguished individuals have been members of the American Chemical Society for 50 or 60 years, what a milestone! A certificate of recognition will be presented at the May meeting to or mailed to each of these long-standing ACS members.

#### **50-Year Members**

Dr. Patrick F. Aluotto

Mr. Frank W. Baker

Mr. A. Blair Battistini

Dr. William Louis Budde

Dr. Michael Eugene Burns

Dr. Larie L. Meal

Dr. Jerry B. Pausch

Mr. Lawrence D. Sangerman

Mr. Robert W. Slater

Mr. J. D. Wooledge

#### 60-Year Members

Dr. Eleanor M. Behrmann

Mr. Charles H. Campbell

Mr. Charles Joseph Feldhake

Dr. Robert G. Laughlin

Mr. John F. Werdmann





# VISIT THE ACS CINCINNATI SECTION ONLINE: www.acscincinnati.org



### Central Regional Meeting of the ACS June 8–10, 2011 University Place Conference Center Indianapolis, Indiana

#### Symposia and Workshops for Teachers

Submitted by Linda Ford

This conference is a great way to celebrate the end of the school year and the start of summer!!! These three days will be full of wonderful learning opportunities and a meeting place for new chemistry colleagues. There will be **symposia and workshops for high school teachers throughout all three days** of the Central Regional meeting —

Symposia will include sessions focusing on:

Measuring Student Learning – Wednesday Afternoon
Details of Dissemination (Publishing at all Levels) – Thursday Morning
Teaching and Learning in the Digital Age – Thursday Morning
Modeling Instruction in High School Chemistry – Thursday Afternoon
CHEM TALK: A Symposium for AP Chemistry Teachers – Friday Afternoon
ACS Hach High School Chemistry Grants – Friday Afternoon

**Workshops** planned for the meeting will focus on:

- Chemical Demonstrations All three days of the conference
- Chemistry with Vernier Wednesday and Friday
- Organic Chemistry with Vernier Wednesday and Friday
- Tie-Dye a T-Shirt Friday Morning Chemistry with Carolina – Friday Morning

Friday starts with a **free breakfast** for all K-12 teachers sponsored by **Carolina Biological Supply**.

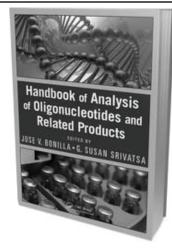
I encourage you to make plans to attend this great conference and consider bringing some of your students along too.

Registration for high school teachers is only \$50 and high school students can register for the conference for free!!!!

For more information, contact:

Laura Slocum, Education Program Chair <u>lslocum@universityhighschool.org</u>
You can register and find more information at: <a href="http://cerm\_regional.sites.acs.org/">http://cerm\_regional.sites.acs.org/</a>

Looking forward to seeing you in Indianapolis this June!



## Handbook of Analysis of Oligonucleotides and Related Products

Editors: Jose V. Bonilla, *Girindus America, Cincinnati, Ohio* G. Susan Srivatsa, *ElixinPharma, Encinitas, California* 

#### **Features**

- \* Presents a unique compilation of the latest techniques for the analysis of oligonucleotides
- \* Explores the current status of regulatory expectations for clinical development of this novel technology
- \* Provides bioanalysis of oligonucleotides in support of therapeutic development
- \* Describes practical applications that can be readily implemented in research, development, or QA/QC laboratories

#### **Summary**

Oligonucleotides represent one of the most significant pharmaceutical breakthroughs in recent years, showing great promise as diagnostic and therapeutic agents for malignant tumors, cardiovascular disease, diabetes, viral infections, and many other degenerative disorders. The Handbook of Analysis of Oligonucleotides and Related Products is an essential reference manual on the practical application of modern and emerging analytical techniques for the analysis of this unique class of compounds. A strong collaboration among thirty leading analytical scientists from around the world, the book provides readers with a comprehensive overview of the most commonly used analytical techniques and their advantages and limitations in assuring the identity, purity, quality, and strength of an oligonucleotide intended for therapeutic use.

#### Topics discussed include:

- \* Strategies for enzymatic or chemical degradation of chemically modified oligonucleotides toward mass spectrometric sequencing
- \* Purity analysis by chromatographic or electrophoretic methods, including RP-HPLC, AX-HPLC, HILIC, SEC, and CGE
- \* Characterization of sequence-related impurities in oligonucleotides by mass spectrometry and chromatography
- \* Structure elucidation by spectroscopic methods (IR, NMR, MS) as well as base composition and thermal melt analysis (Tm)
  - \* Approaches for the accurate determination of molar extinction coefficient of oligonucleotides
  - \* Accurate determination of assay values
- \* Assessment of the overall quality of oligonucleotides, including microbial analysis and determination of residual solvents and heavy metals
  - \* Strategies for determining the chemical stability of oligonucleotides
- \* The use of hybridization techniques for supporting pharmacokinetics and drug metabolism studies in preclinical and clinical development
- \* Guidance for the presentation of relevant analytical information towards meeting current regulatory expectations for oligonucleotide therapeutics

This resource provides a practical guide for applying state-of-the-art analytical techniques in research, development, and manufacturing settings.

This link provides additional information: http://www.crcpress.com/product/isbn/9781439819937

-Jose V. Bonilla, Ph.D.

### Awardee Photos from April Education Awards Meeting at NKU



Ms. Eheman receives HS Teacher of the Year award from Al Hazari



NCW Poster Winner Shakenda Giles and Teacher Veronica Dean Mann



Science & Engineering Expo 6<sup>th</sup> Grade Winners Llillian and Katherine



National NCW Poster Winner Lisa Patterson and Ms. Eheman



Chemistry Olympiad High School Student Winners



# Charles P. Casey Homer B. Adkins Emeritus Professor of Chemistry University of Wisconsin-Madison 2011 Oesper Awardee

The Department of Chemistry at the University of Cincinnati, and the Cincinnati Section of the ACS will present the 2011 Oesper Award to Professor Emeritus Charles P. Casey from the University of Wisconsin-Madison at the Oesper Banquet and Symposium at UC, October 14, 2011.

Charles Casey is being recognized for his pioneering work on metal carbene complexes, mechanisms of organometallic reactions, developing an understanding of homogeneous catalysts, excellence in teaching, and services to the American Chemical Society.

CHARLES P. CASEY is *Homer B. Adkins Emeritus Professor of Chemistry* at the University of Wisconsin-Madison. He received his Ph.D. from Massachusetts Institute of Technology in 1967 where he did graduate research with George M. Whitesides (2004 Oesper Awardee) on organocopper compounds. He then spent several months at Harvard University as an NSF Fellow in the laboratories of Paul D. Bartlett. In 1968, he joined the faculty at the University of Wisconsin-Madison where he spent his entire academic career. He was Department Chair at the University of Wisconsin-Madison from 1998-2001. He served as President of the American Chemical Society in 2004.

Professor Casey's research focuses on mechanistic organometallic chemistry. The mechanisms of important catalytic processes including hydroformylation, hydrogenation, and alkene polymerization have been explored. His recent work has been on new hydrogenation catalysts that operate by simultaneous delivery of a hydride and a proton to polar substrates. Earlier work involved metal-carbene—alkene complexes and their role in both cyclopropanation and olefin metathesis, chelating diphosphines with wide natural bite angles as effective ligands for highly regioselective hydroformylations, and heterobimetallic compounds. He is author of more than 300 papers in organometallic chemistry.

Casey is a member of the National Academy of Sciences and the American Academy of Arts and Sciences and a Fellow of the American Association for the Advancement of Science. He received the Alumni Merit Award from St. Louis University in 1987, an Alexander von Humboldt Senior Award, a Fellowship from the Japan Society for the Promotion of Science, the Arthur C. Cope Scholar Award of the American Chemical Society in 1988, the American Chemical Society Award in Organometallic Chemistry in 1991, and the American Chemical Society Award for Distinguished Service in the Advancement of Inorganic Chemistry in 2011.

The Oesper Symposium will be held on October 14, 2011 and will feature the following speakers:

Rustem Ismagilov, University of Chicago Clark Landis, University of Wisconsin-Madison Melanie Sanford, University of Michigan Jon Tunge, University of Kansas Ross Widenhoefer, Duke University Chae Yi, Marquette University

Visit the Oesper website for more information and the Symposium schedule: <a href="http://asdev.artsci.uc.edu/collegedepts/chemistry/alumni\_community/oesper/">http://asdev.artsci.uc.edu/collegedepts/chemistry/alumni\_community/oesper/</a> or contact Kim Carey (513-556-0293; Kim.Carey@uc.edu)

#### Professor Clark R. Landis

Department of Chemistry University of Wisconsin-Madison http://www.chem.wisc.edu/~landis/landis.html

#### Oesper Banquet Speaker

#### **Awards**

- ACS Award in Organometallic Chemistry 2010
- Fellow, American Academy for the Advancement of Science
- Hutchison Lecturer, University of Rochester
- Fellow of the Japan Society for the Promotion of Science
- Dow Lecturer in Inorganic Chemistry, UC-Berkeley
- Vilas Associates Award, UW-Madison, 1997-1998
- Upjohn Teaching Award, UW-Madison, Fall, 1995
- Departmental Teaching Award, UW-Madison, Spring, 1992
- NIH FIRST Award, 1988
- Junior Faculty Development Award, University of Colorado, 1987
- Dreyfus Distinguished New Faculty Award, University of Colorado, 1986
- Mark Galler Award for Most Distinguished Ph.D. Dissertation in the Physical Sciences, University of Chicago, 1984



October 14<sup>th</sup>, 2011

**Poster Session:** The Cincinnati Section of the ACS and UC Department of Chemistry co-sponsor the Ralph & Helen Oesper Poster Session/Reception from 5:30-7pm in the Great Hall Tangeman University Center, University of Cincinnati. Submit abstracts by September 30<sup>th</sup>, 2011 or questions to Cynthia Schroll at <a href="mailto:cincychem@hotmail.com">cincychem@hotmail.com</a>. Email confirmations of receipt of your abstract will serve as registration for the Poster Session only. Please submit using Microsoft Word of similar format, single spaced, 200 words or less.

**NOTE:** The poster session is open to anyone wanting to present a poster. We would especially like to encourage other universities and industry to present.





# Save 50% off the Nat'l ACS Meeting Price

#### **Statistical Analysis of Laboratory Data**

#### Stephen Morgan, Stanley Deming, Instructors

Monday through Wednesday, May 23-25, 2011

## Mason Business Center – The Procter & Gamble Company 8700 Mason-Montgomery Road, Mason Ohio

#### Overview

Master the fundamentals of laboratory data treatment to solve data analysis problems. Through a combination of lectures and problem-solving sessions, this course will teach statistical techniques that can be put to immediate use in the workplace. Participants will learn how to understand the strengths and weaknesses of data, recognize and reduce different types of errors, carry out significance tests, correctly use outlier tests, and more.

#### Who Should Attend?

Technicians, scientists, engineers, laboratory managers, R&D managers, manufacturing and production managers, and others who need to understand traditional and modern methods of data analysis. This course assumes no previous knowledge of statistics and is aimed at both beginning and experienced workers. Each participant should bring a hand-held calculator to the course.

#### How You'll Benefit from This Course

Consult with seasoned experts about your data analysis problems.

Enhance your ability to extract more meaningful data from your data sets.

Gain confidence in the use of basic statistical methods.

Improve your decision-making abilities.

Learn new ways to look at data.

Reduce the number of measurements required for certain applications.

Understand statistical terminology and be able to communicate more easily with statisticians.

#### **About the Instructors**

**Stanley N. Deming** is Professor Emeritus of Chemistry at the University of Houston, Houston, Texas and teaches Experimental Design for Productivity and Quality in Research & Development and Statistical Analysis of Laboratory Data

**Stephen L. Morgan** is Professor of Chemistry at the University of South Carolina, Columbia, South Carolina and teaches Experimental Design for Productivity and Quality in Research & Development and Statistical Analysis of Laboratory Data.

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#### **Course Topics**

MeasurementAccuracy and PrecisionMeansStandard deviationPoolingz DecisionsConfidence intervalsStatistical samplesOutliers

One-way ANOVA Central limit theorem p values and power Statistical testing Algebra and logic Hypothesis testing Formal statistical tests One-sample t test Two-sample t test

Paired t test Fisher's F test Duncan's multiple range test

Optional topics: Detection limits; Statistical process control; Bioassays

#### **Date and Site**

May 23-25, 2011, this is a 3-day course. Location: Mason Business Center (formerly Health Care Research Center) -- The Procter & Gamble Company, 8700 Mason-Montgomery Road, Mason, Ohio 45040. Check-in at 7:30 a.m. on the first day of the course and the course runs from 8:30 a.m. to 5:00 p.m. each day.

#### **Registration and Fees**

The course fee will be approximately \$850 for ACS members or \$950 for non-members. This is approximately 50% of the cost of the same course at a National ACS meeting (\$1795). The fee will include course materials, continental breakfast, lunches, and refreshment breaks. Seating will be limited to 30 people.

You may register and pay by going to the CINTACS website, <a href="http://www.acscincinnati.org/acs">http://www.acscincinnati.org/acs</a>, select your fee, and click the Buy Now button. This will take you to the Paypal website where you may enter your credit card information. You do not need to have a personal Paypal account to pay (i.e., you may pay as a guest). Please plan to register and pay by Friday April 30. In case of overwhelming response, seating will be limited to the first 30 people who register.

#### For further information please contact:

Dr. Rick White The Procter & Gamble Company Mason Business Center, Box 705 8700 Mason-Montgomery Road Mason, Ohio 45050

tel. 513-622-1624

e-mail: white.dr.2@pg.com



#### Note from the outgoing editor:

I will be stepping down as editor of CINTACS after the current issue. It has been a pleasure to serve in this capacity over the past four years, and I have enjoyed getting to know many of the terrific people who work so hard in support of the Cincinnati section. I shall look forward to seeing all of you at future meetings.

-Kevin Ashley

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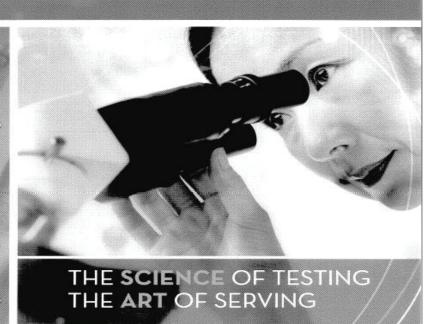
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