

# CINTACS



Newsletter of the Cincinnati Section of the American Chemical Society

September, 2010  
Vol. 48 No. 1

## Meeting Calendar

Sept. 26	Family & Friends Picnic @ Germania Park
Oct. 8	Oesper Award Events, Kurt Wüthrich, Scripps Research Institute, Oesper Awardee @ University of Cincinnati
Oct. 17-23	National Chemistry Week 'Behind the Scenes with Chemistry'
Dec.	Joint mtg. with NOBCChE, TBD
Jan. 12	TBD
Feb. 9	Chemist of the Year
Mar. 9	TBD
Apr. 13	Education Awards Night @ NKU, TBD
May	Party Night [TBD]

## In this issue

Sept. mtg. announcement	1,3
From the Chair	2-3
Wüthrich to receive Oesper Award	3
Oesper Events at UC	3-7
October mtg. announcement	4
Prof. Charles Weissman, Oesper banquet speaker	5
Oesper poster session: Call for posters	5
Prof. Kurt Wüthrich, Oesper awardee	6
Oesper speakers' abstracts	7
National Chemistry Week	8
Call for section meeting sponsors	8

Come to the first "meeting" of the year:

**7<sup>th</sup> ANNUAL  
FAMILY AND FRIENDS PICNIC  
Elemental Fun at Germania Park  
Sunday, September 26, 2010, 1-5 PM**

Bring your family! Invite your friends! Come and celebrate the end of summer and the beginning of fall, reconnect with old friends and make new ones in a relaxed and casual atmosphere. Activities and entertainment will include food, drinks, and Goldie the clown, face painting, balloons, manual activities and/or games for children, piñata breaking, and chemistry demonstrations.

Registration: 1:00-2:00 PM

Food/Potluck: The section will provide grilled hot dogs, hamburgers, brats, metts, and chicken as well as condiments and drinks including beer, soft drinks and juice boxes.

Attendees are cordially requested to bring a dish to share. If your last name starts with A-M please bring a side dish or salad for 6. If your last name starts with N-Z bring a dessert for 6.

Food will be served at 2 PM

Cost: \$10 for individual members or \$15 for members with their family or friends. \$5 for individual retired members, first time chemists, K-12 teachers, students and unemployed members or \$10 for the same with their family or friends.

(Continued on page 3)

**THE CINTACS NEWSLETTER****Vol. 48, No. 1 September, 2010**Editor.....Kevin Ashley  
Advertising.....Ed Hunter

CINTACS is published eight times a year (September through May) by the Cincinnati Section of the American Chemical Society. The submission deadline will be approximately September 12 for the October 2010 issue. Electronic submission is strongly preferred. All materials should be sent to:

Dr. Kevin Ashley  
CDC/NIOSH  
4676 Columbia Parkway  
Mail Stop R-7  
Cincinnati, Ohio 45226-1998  
Tel.: (513) 841-4402  
Fax: (513) 458-7189  
E-mail: KAshley@cdc.gov**ACS Cincinnati Section**Chair:Victor Arredondo  
(513)626-0242  
arredondo.vm@pg.com1st Vice Chair & Chair-Elect:Rich Mullins  
(513)745-3361  
mullins@xavier.edu2nd Vice Chair:Gloria Story  
(513)627-2840  
Story.gm@pg.comSecretary:Jamie Heimkreiter  
(513)489-8447  
jheimkre@advancedtesting.netTreasurer:Ed Hunter  
(513)556-9215  
hunterje@email.us.eduTrustee (Chair)George Rizzi  
(513)761-0816  
georgerizzi@yahoo.com**From the Chair**

The Cincinnati Section 2010-2011 year of meetings and events start with our annual Family and Friends Picnic at Germania Park. In its 7<sup>th</sup> year, this family-friendly event is now becoming a tradition that you should not miss. Keeping with October Fest-like celebrations, we will have grilled bratwurst, metts, hamburgers, chicken, hot dogs, tap beer and soft drinks. These will be provided by the section. We ask you to bring your favorite side dish and/or dessert to share.

**Bring your entire family and invite your friends!** While we enjoy chemistry and have a passion for it, we have other interests as well and like to hang out and have a good time. Goldie the clown will have fun activities to entertain the kids such as face painting, balloons, manual activities and/or games. There will also be piñata breaking, one-of-a-kind chemistry corn hole set for playing, chemistry puzzles and more. The retired chemists group will present memorable chemistry demonstrations that make a long-lasting impression on kids and adults alike. For example, my two oldest boys still talk about last year's chemistry demonstrations, in particular how they were blowing "smoke" through their nostrils after eating a liquid nitrogen-frozen cracker.

National Chemistry Week will be celebrated from October 17<sup>th</sup> to 23<sup>rd</sup>, so mark your calendars! The theme this year is "Behind the Scenes with Chemistry!", it seeks to direct attention to the chemical science which makes the special effects possible in movies or the "magic" described in movies such in the Harry Potter books.

I would like to thank both Heather Bullen and Keith Walters for their past leadership and hard effort in coordinating our National Chemistry Week for the past few years. This year, a team of talented and committed volunteers are leading our National Chemistry Week Program. New to the team, Jacqueline Thomas, a Scientist at P&G, is coordinating our demonstration events and our volunteer demonstrators. **Please give her a warm welcome by answering to her call for volunteers who are always needed and appreciated.** Gloria Story and her partners in crime, Ed Vonbargen and Carry Furnish, will be leading the events at the Cincinnati Museum Center on October 22<sup>nd</sup> and 23<sup>rd</sup>. You can also join their team if interested. Jamie Heimkreiter leads the NCW Poster Contest.

The Oesper Symposium and Banquet is October 8<sup>th</sup> at the University of Cincinnati. The 2002 Nobel Prize winner Professor Kurt Wüthrich of The Scripps Research Institute in La Jolla, CA is this year's Oesper Award honoree. Professor Wüthrich research interests are molecular structural biology, and structural genomics, he uses nuclear magnetic resonance (NMR) spectroscopy with biological macromolecules and will present the Oesper Award Lecture, "NMR with Proteins –from Hemoglobin to Structural Genomics".

*(Continued on next page)*

*(Continued from page 1)*

**Reservations:** The meeting reservation form is online at [www.acscincinnati.org/acs](http://www.acscincinnati.org/acs). When you register indicate the number of adults and children attending. The deadline for registration is Wednesday, September 21 at noon.

Directions to Germania Park, 3529 West Kemper Road, Cincinnati, OH 45251:

From I-275 take the Colerain Avenue exit and go north on Colerain (US 27) for about 2.5 miles. Take the Kemper Road exit and turn right onto Kemper. Germania Park is on the right after about 1.3 miles. From I-275 W take exit #36 toward Mt. Healthy. Turn right onto Hamilton Avenue (US 127) and go north about 0.8 miles. Turn left onto West Kemper Road. Germania Park is on the left after 1.6 miles.

*(Continued from previous page)*

After the symposium, the banquet begins with a reception and the Cincinnati Section ACS student award poster session, followed by dinner and the Oesper Award presentation by Charles Weissmann of The Scripps Research Institute, Florida.

Speakers for the symposium include: John Bushweller, University of Virginia; Mark Rance, University of Cincinnati; Arthur Pardi, University of Colorado; Werner Barun, University of Texas; Dinshaw Patel, Memorial Sloan-Kettering Cancer Center, and Gerhard Wagner, Harvard Medical School. **Invite your colleagues with interest in this area for this top notch symposium.**

There are great opportunities for getting involved as our 2010-2011 year of meetings and events begins. I would love to hear from you, I welcome your ideas, input and any help you can offer.

I hope to see you at the picnic!

Victor M. Arredondo  
Chair  
ACS Cincinnati Section  
[arredondo.vm@pg.com](mailto:arredondo.vm@pg.com)

## Wüthrich to Receive 2010 Oesper Award

(More info pp. 4-7)

### Oesper Symposium Events at the University of Cincinnati

Honoring Professor Kurt  
Wüthrich  
Friday, October 8, 2010

**Oesper Symposium:** 9 am – 5:30 pm, 400A Tange-  
man University Center (TUC). A full schedule is  
available at [http://www.che.uc.edu/  
alumni\\_community/oesper/](http://www.che.uc.edu/alumni_community/oesper/)

**Poster Session:** The Cincinnati Section of the ACS and UC Department of Chemistry co-sponsor the Ralph & Helen Oesper Poster Session/Reception from 5:30-7:00 pm in the Great Hall Tangeman University Center, University of Cincinnati. Submit abstracts by September 24<sup>th</sup>, 2010 or questions to Cynthia Schroll at [cincychem@hotmail.com](mailto:cincychem@hotmail.com). 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, 150 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.

**Banquet:** The banquet will be held immediately following the poster session (7 pm) in the Great Hall TUC. Registration required, prices are \$20, half price for emeritus, students, K-12, unemployed and new members. Register at [http://  
registration.acscincinnati.org/](http://registration.acscincinnati.org/)

Registration deadline for the Oesper banquet is September 29 (noon).

For more information, please visit our Web site at [http://www.che.uc.edu/alumni\\_community/oesper/](http://www.che.uc.edu/alumni_community/oesper/) or contact Kim Carey (513-556-0293);

---

October Meeting: October 8, 2010

## 30<sup>th</sup> Oesper Award Banquet, Poster Session and Symposium at the University of Cincinnati

Tangeman University Center (TUC) University of Cincinnati

*Sponsored by the University of Cincinnati Department of Chemistry*

This year's Oesper Award honors 2002 Nobel Prize winner Professor Kurt Wüthrich of The Scripps Research Institute in La Jolla, CA for his contribution to determine the three-dimensional structure of biological macromolecules by nuclear magnetic resonance spectroscopy in an environment similar to that in the living cell. Wüthrich will give the Oesper Award Lecture, "NMR with Proteins –from Hemoglobin to Structural Genomics"

### **Poster Session, Reception and Award Banquet**

5:30-7:00 PM: Oesper Poster Session and Reception

7:00-9:00 PM: Banquet, award Presentation and After Dinner Address by Charles Weissmann, The Scripps Research Institute, Florida "A Tale from Two cities"

Banquet price is \$20.00; emeritus, students, K-12 teachers, unemployed and first time members are ½ price.

The meeting reservation form is at <http://registration.acscincinnati.org/> this is the best and easiest way to register. As an alternative, you may send your reservations by email to Kim Carey at [Kim.Carey@uc.edu](mailto:Kim.Carey@uc.edu). If absolutely impossible to make reservation by internet, telephone 513-556-0293. Deadline for reservations is 12:00 noon on September 29, 2010. Include your name, affiliation, dinner choice and state if you are in the ½ price category. If you decide you must miss a meeting after you have registered, please call to cancel. If you do not cancel, the Section will charge you because it will have been charged by the University.

The banquet dinner choices are:

- 1) Chicken Chasseur (chicken in a white wine sauce with mushrooms and tomatoes) and served with red skin mashed potatoes and sautéed green beans
- 2) Vegetarian/Vegan option: Peppers stuffed with a lentil ragu and served with sauteed green beans

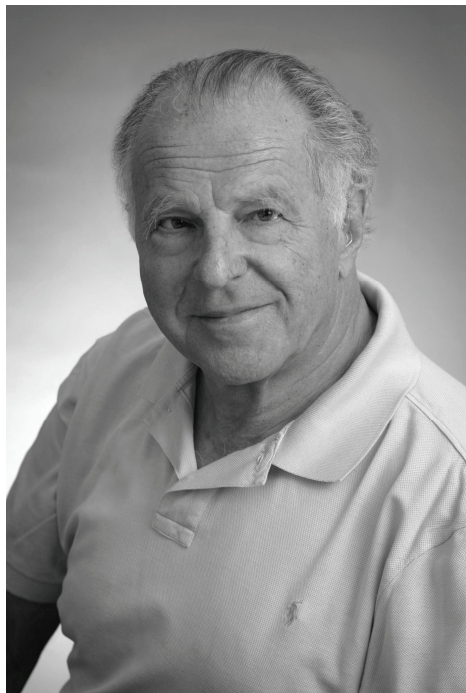
Directions: [http://www.uc.edu/directions/main.html#NorthSouth\\_I-75](http://www.uc.edu/directions/main.html#NorthSouth_I-75)

If you approach via I-75, take the Hopple Street exit and turn left at the light. You will pass over the highway. At the next light, go straight (straight here is actually about a 45 degree turn to the left). You are now on Martin Luther King Drive. Continue up King to the 4th traffic light. You will reach the first one quickly, the second one about ½ mile after that, the third (Clifton Ave.) after going up a long hill, and the 4th as you continue eastward with the campus on your right. Turn right at this 4th traffic light onto campus, and then right into the Woodside Garage.

Map of Campus: <http://www.uc.edu/architect/documents/Logistics/logisticsbw.pdf>

Contact Kim Carey at 513-556-0293 for additional information.

---



## Oesper Banquet Speaker

### Charles Weissmann

The Scripps Research Institute, Florida

Charles Weissmann, M.D., Ph.D., Professor and Chairman, Department of Infectology, obtained his M.D. (1956) and Ph.D. degrees (1961) at the University of Zürich. After 7 years at the NYU School of Medicine as a post-doc, Assistant and then Associate Professor, he became Director of the Institute of Molecular Biology, University of Zürich in 1967. In 1999 he moved to the MRC Prion Unit, University College, London as Senior Scientist. In 2004 he was appointed Chairman of the Department of Infectology, Scripps Research Institute, Florida.

Dr. Weissman has contributed significantly to our understanding of RNA virus replication, developed site-directed mutagenesis and reverse genetics, discovered quasispecies in viral populations, cloned the human interferon alpha genes and produced recombinant interferon in E.coli, cloned the prion gene and demonstrated that its knockout in mice abrogated prion replication and conferred protection from prion disease.

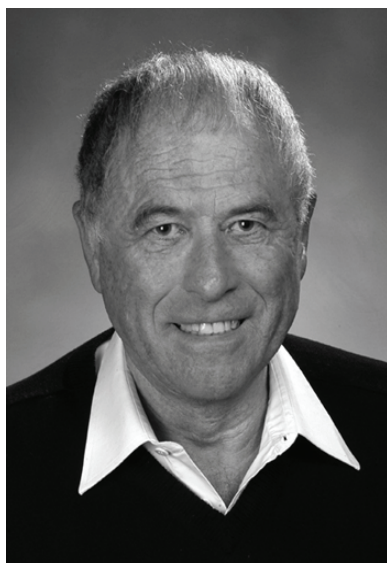
Professor Weissmann has been internationally recognized for his work, including memberships in the Royal Society (United Kingdom) and National Academy of Science (USA). He has been awarded six honorary doctoral degrees and many leading scientific prizes. He was a cofounder of Biogen, the first European biotechnology company and served on several corporate boards.

### **Ralph & Helen Oesper Poster Session**

The ACS Cincinnati Section and the UC Department of Chemistry will co-sponsor the Ralph & Helen Oesper Poster Session & Social Hour, Oct. 8, 2010 @ 5:30 pm-7 pm in the Great Hall Tangeman University Center, University of Cincinnati. Registration is now open; submit abstracts by October 1<sup>st</sup>, 2010 to Jamie Heimkreiter at [jheimkre@advancedtesting.net](mailto:jheimkre@advancedtesting.net). Email confirmation of receipt of your abstract will serve as registration for the Poster Session. Please submit using Microsoft Word or similar format, single spaced, 150 words or less.

A full schedule of Oesper events is available at [http://www.che.uc.edu/alumni\\_community/oesper/symposium.html](http://www.che.uc.edu/alumni_community/oesper/symposium.html).





**Kurt Wüthrich**  
**The Scripps Research Institute**  
**La Jolla, CA**

**2010 Oesper Awardee**

The Department of Chemistry at the University of Cincinnati and the Cincinnati Section of the ACS will present the 2010 Oesper Award to Professor Kurt Wüthrich from The Scripps Research Institute at the Oesper Banquet and Symposium at UC, October 8, 2010.

The 2002 Nobel Prize winner is being recognized for his contribution to determining the three-dimensional structure of biological macromolecules by nuclear magnetic resonance spectroscopy in an environment similar to that in the living cell.

Professor Wüthrich is currently Cecil H. and Ida M. Green Professor of Structural Biology at The Scripps Research Institute, La Jolla, CA, USA and Professor of Biophysics at the ETH Zurich, Zurich, Switzerland. His research interests are in molecular structural biology and structural genomics. His specialty is nuclear magnetic resonance (NMR) spectroscopy with biological macromolecules, where he contributed the NMR method of three-dimensional structure determination of proteins and nucleic acids in solution. The Wüthrich groups have solved more than 70 NMR structures of proteins and nucleic acids, including the immunosuppression system cyclophilin A–cyclosporin A, the homeodomain–operator DNA transcriptional regulatory system, and prion proteins from a variety of species.

Dr. Wüthrich was born in Switzerland on October 4, 1938, is married to Marianne Briner, and has two children, Bernhard Andrew and Karin Lynn. He studied chemistry, physics and mathematics at the University of Bern from 57–62, obtained the Eidgenössisches Turn- und Sportlehrerdiplom and a Ph.D. in inorganic chemistry with Prof. Silvio Fallab at the University of Basel in 1964, was a post-doctoral fellow in Basel (Prof. S. Fallab), at the University of California in Berkeley, CA, USA (Prof. R.E. Connick) and at Bell Telephone Laboratories in Murray Hill, NJ, USA (Dr. R.G. Shulman) before joining the ETH Zürich in 1969 (Privatdozent 1970, Assistant Professor 1972, Associate Professor 1976, Professor of Biophysics 1980, Chairman of the Department of Biology 1995–2000). Since 2001 he shares his time between the ETH Zürich and The Scripps Research Institute. Professor Wüthrich's achievements have been recognized by the Prix Louis Jeantet de Médecine, the Kyoto Prize in Advanced Technology, the Nobel Prize in Chemistry, and by a number of other awards and honorary degrees.

**Visit the ACS Cincinnati Section On-line:**

**[www.acscincinnati.org](http://www.acscincinnati.org)**



## **NMR with Proteins –from Hemoglobin to Structural Genomics**

**Kurt Wüthrich**

**The Scripps Research Institute, La Jolla, CA, USA**

My research group is specialized in the use of nuclear magnetic resonance (NMR) spectroscopy for studies of proteins, and we represent this technique in the crystallography-centered Joint Center for Structural Genomics (JCSG; NIGMS U54 GM074898). Structural genomics uses ‘high-throughput’ technology of protein production and structure determination for studies of gene products with unknown structure, unknown function and minimal similarity to previously studied proteins, which sets it apart from “classical structural biology”. The outlook is to further develop approaches for predicting physiological protein functions from knowledge of new three-dimensional structures. The NMR method is complementary to structure determination by X-ray crystallography by the fact that it investigates proteins under solution conditions close to the physiological milieu in body fluids, generating data on protein structure, stability, dynamics and intermolecular interactions in solution. NMR thus has an exciting role in the future challenge to use the expanding coverage of the protein universe with three-dimensional structures as a basis for gaining new insights into protein functions and chemical biology.

## **A Tale from Two Cities**

**Charles Weissmann**

**The Scripps Research Institute, Florida**

For many decades, the nature of the agent that causes transmissible spongiform encephalopathies such as kuru, Creutzfeldt-Jakob disease or Mad Cow disease remained an intractable mystery. Research in San Francisco and Zurich has shown that the infectious agent, the “prion”, consisted mainly if not exclusively of a protein termed “PrP<sup>Sc</sup>”, and that its propagation came about by PrP<sup>Sc</sup>-seeded conversion of the normal host protein “PrP<sup>C</sup>” into likeness of itself. We have recently found that prions are subject to mutation-like events and selection, despite the fact that they do not contain nucleic acid.

## National Chemistry Week – Seeking Volunteers

The ACS Cincinnati Section will once again be promoting National Chemistry Week (October 17<sup>th</sup> -23<sup>rd</sup>) throughout the greater Cincinnati region.

This year's theme is "Behind the Scenes with Chemistry". Every year during NCW we provide fun-filled, learning experiences by carrying out chemistry demonstrations at the Cincinnati Museum Center, many local libraries and schools. We will be contacting volunteers soon with more information on National Chemistry Week (NCW), including a date for training.

If you haven't participated before, but are interested in NCW outreach activities to local libraries, please contact us to be included on the distribution list.

Your National Chemistry Week coordinator is:

**Jackie B Thomas:** [thomas.jb.1@pg.com](mailto:thomas.jb.1@pg.com)

## 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 8 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 6 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 8 sponsors. Every effort will be made to align the Sponsor's areas of interest with our monthly topics.

Ted J. Logan, CHAIR  
Sponsorships and Solicitations Committee  
Cincinnati Section, ACS  
Phone: 513-385-8856  
E-mail: [TJLOGANCIN@AOL.COM](mailto:TJLOGANCIN@AOL.COM)



# Kinetica, Inc.

ISO 17025 Certified Thermoanalytical Testing Services for the Chemical Process Industry

**Kinetica provides testing and consulting services  
for process safety and process development**

- Accelerating Rate Calorimetry
- Bomb Calorimetry
- Differential Scanning Calorimetry
- Solution Calorimetry
- Explosives and Pyrotechnics Analysis
- Large-scale SADT Testing
- Litigation Support

9560 North Dixie Highway • Franklin OH 45005 • Telephone: 937-743-3082 • Fax: 937-743-3652  
www.thermochemistry.com



\* GPC/SEC Analysis  
\* GPC/SEC Polymer Standards  
\* GPC/SEC Columns \* Waters™ 150C Parts  
\* WISP 710/712 Parts

**Request your free catalog online**

[www.ampolymer.com](http://www.ampolymer.com)

American Polymer Standards Corporation  
8680 Tyler Blvd., Mentor, OH 44060

Phone: 440-255-2211

Fax: 440-255-8397



## Robertson Microlit Laboratories


*Where speed and accuracy are elemental*

Elemental CHN, S, X, Analysis (*same day service*)  
Metals by ICP-OES, ICP-MS, A/A  
FTIR, UV/VIS Spectroscopy  
Ion Chromatography

Bioavailability  
Polarimetry  
DSC, melting point  
KF Aquametry, Titrimetry


P.O. Box 927 • 29 Samson Ave. • Madison, NJ 07940 • 973.966.6668 • F 973.966.0136  
www.robertson-microlit.com • email: results@robertson-microlit.com

**Rapid Results • Quality • Accuracy • Competitive Pricing**



**ALPHA-LIBERTY COMPANY, INC.**  
*Balances & Scales & Mass*  
 WEST CHESTER, OHIO 45071-0276  
 513-777-1525 Fax 513-777-0819  
 Susan@AlphaLiberty.com


**WEIGHT CALIBRATION**



NIST Traceability

ISO/IEC 17025 Accredited Laboratory


Fast Turn Around



**BALANCE CALIBRATION**



**Support CINTACS  
Advertisers!**



**Micron Analytical Services**

COMPLETE MATERIALS CHARACTERIZATION  
MORPHOLOGY CHEMISTRY STRUCTURE

SEM/EDXA, TEM/SAED, EPA/WDXA, XRD,  
 XRF, ESCA, AUGER, FTIR, DSC/TGA  
 3815 Lancaster Pike Wilmington DE. 19805  
 Voice 302-998-1184, Fax 302-998-1836  
 E-Mail [micronanalytical@compuserve.com](mailto:micronanalytical@compuserve.com)  
 Web Page: [www.micronanalytical.com](http://www.micronanalytical.com)



**MARSTON TECHNICAL SERVICE, INC.**  
 11576 Goldcoast Drive  
 Cincinnati, OH 45249

**M. Patrick Marston** Office: 513-563-8100  
 President 1-800-966-1020  
[pat.marston@marstontech.com](mailto:pat.marston@marstontech.com) Fax: 513-554-8532  
[gen.e-mail: marstontech@aol.com](mailto:gen.e-mail:marstontech@aol.com) [www.marstontechnical.com](http://www.marstontechnical.com)

*Calibration, Certification, Sales & Service For All Your Laboratory Equipment*

## Chromatography Columns & Consumable Solutions

- **HyperSep & HyperSep RETAIN** (Polymeric)
  - SPE Columns & 96 Well Plates
- **Hypersil GOLD™** - Unlocking solution
  - C18, aQ, C8, Cyano, PFP, Phenyl
  - 1.9µm (U-HPLC), 3µm, 5µm, 8µm, 12µm
- **Hypercarb™** - For challenging separations
  - Polar compounds, isomers, No pH limit, up to 200° C
- **BioBasic™** - Biomolecules
  - C18, C8, C4, ion exchange, & SEC
- **TRACE™ GC Consumable**
  - Columns, Septa, Liners, Ferrule, Gas Filters
- **Hypersil BDS™** - Proven Technology
  - C18, C8, Cyano, Phenyl, 2.4µm, 3µm, 5µm
- **Vials** - National Scientific & SUN SRI
  - New Color ID Patch Vials
- **Reacti-Therm & Reagents** – Pierce
  - Heating/stirring & evaporator module



**Kentucky** - Bob Myers  
[bob.myers@thermofisher.com](mailto:bob.myers@thermofisher.com)  
 Phone: 814-883-5152

**Ohio** - Teri Simon (Rongaus)  
[teri.simon@thermofisher.com](mailto:teri.simon@thermofisher.com)  
 Phone: 267-850-8095

[www.separatedbyexperience.com](http://www.separatedbyexperience.com)

Thermo  
SCIENTIFIC

1

ThermoFisher  
SCIENTIFIC

## ADVANCED TESTING LABORATORY

- ▶ MICROBIOLOGY
- ▶ CHEMISTRY
- ▶ ON-SITE LAB SERVICES
- ▶ PROFESSIONAL SERVICES

6954 Cornell Road | Suite 200  
 Cincinnati, OH 45242  
 513.489.8447  
 513.489.9291 fax  
[ClientRelations@AdvancedTesting.net](mailto:ClientRelations@AdvancedTesting.net)

VISIT  
[www.AdvancedTesting.net](http://www.AdvancedTesting.net)



THE SCIENCE OF TESTING  
 THE ART OF SERVING

**American Chemical Society – Cincinnati Section**

Xavier University  
Department of Chemistry  
3800 Victory Parkway  
Cincinnati, Ohio 45207

**Non-Profit Org.  
U.S. Postage  
Paid  
Cincinnati, Ohio  
Permit #517**