



August 2013  
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# Central Texas ACS

Established 1917

Newsletter of the Central Texas Section of the American Chemical Society  
[www.CentralTexasACS.org](http://www.CentralTexasACS.org)

Local Section meeting – Wednesday, September 18<sup>th</sup>  
Social Hour Begins at 6:00 pm, Dinner begins at 6:30 pm

## *Drug Screening in Physiological Samples: An Olympian Task*

Dr. Joe Vinson

Professor of Chemistry at the University of Scranton

### **Texas Land and Cattle**

6007 North IH 35, Austin, TX, 78723

1-290 & Hwy 35, next to Embassy Suites

**Ph:** 512 / 451-6555, **Fax:** 512 / 451-4549

[directions](#)

Dinner is \$20 for non-members/adults, \$13 for members/adults and  
\$10 for students/high school teachers  
Dinner will be choice from several items.

RSVP by Thursday by September 12 using any of the following methods below:

[RSVP Link](#)

Email Don Wharry [donalddw@stedwards.edu](mailto:donalddw@stedwards.edu)

Call or text (512) 695-8498 with full name, email, and number of guests

### **Abstract**

Drugs in physiological fluids such as blood and urine are now tested in a variety of settings: the workplace, for insurance screening, in the hospital, and for traffic accidents and fatalities. Analysis in physiological fluids represents a formidable task for the clinical or analytical chemist. The problems include (1) a low concentration of the drug; (2) the drug is often metabolized; and, (3) the presence of endogenous compounds that may interfere in the analysis. After the initial screen to determine the presence or absence of a drug or drugs, the analyst may need to confirm the identity by another analytical technique and/or quantitate the drug. In this presentation, we will review the nature of commonly used and abused drugs including alcohol, amphetamines, barbiturates, tranquilizers, narcotics, and marijuana. Their pharmacology will also be described. The methods used to isolate and concentrate drugs will be discussed. These include liquid-liquid extraction and the latest solid-phase extraction techniques. The analytical techniques such as thin-layer chromatography, gas-liquid chromatography, mass spectroscopy, and immunoassay methods will be critically reviewed. Novel samples that can be analyzed such as hair will also be described

# Central Texas ACS: August 2013

## Letter from the Chair

Dear Colleagues,

Another school year begins and time to get involved in activities for the fall. National Chemistry week will be coming up soon and local section meeting are being scheduled. I look forward to seeing you at these events.

It is also time to begin thinking about positions you would like to volunteer to support your local section. Call or email me if you have an interest you would like to pursue in the local section.

Don Wharry

### *Future meeting*

October 10<sup>th</sup> - Dr. Danny Reibles – Water issues in Texas, Location TBD

## STEM Adventure Weekend

The ACS is supporting a community outreach program at a Boy Scout camping event on September 21 at the Lost Pines Scout Reservation near Bastrop. This experience is a council wide event that will have over 600 youth attend. The young men will select from various topics to learn about, including chemistry. This chemistry classes cover many aspects of the chemical sciences, including environmental issues, petrochemicals, chemistry in everyday life, analytical chemistry, safe use of chemicals and more. Once the youth have attended all four chemistry classes, they will have earned the chemistry merit badge. The program is hands on, interactive and uses unconventional teaching techniques in an informal education setting. It instills a passion for science in general and specifically for chemistry for the 100+ students who will attend this class. For more information, please contact Matt Lasater at [matter@jedi.net](mailto:matter@jedi.net) or [512-587-4875](tel:512-587-4875).

## Speaker Bio

Dr. Joe Vinson was born in Arkansas and grew up in the San Francisco Bay Area. He attended college at the University of California at Berkeley where he received his B.S. in Chemistry in 1963. He received a joint PhD in Physical Organic Chemistry and Analytical Chemistry (two theses) in 1967 at Iowa State University. After a stint in industry at J.T. Baker Chemical Company, he is now Professor of Chemistry at the University of Scranton in Northeast Pennsylvania. His current research interests include the effect of foods, vitamins, and antioxidants on nutrition and health. He is a consultant for several nutritional supplement companies. Dr. Vinson is the author of over 80 publications and has presented his research at meetings and venues around the world. He is best-known for his work with chocolate, tea, grape juice, and cranberry juice and has been featured on ABC Good Morning America Sunday and National Public Radio The People's Pharmacy and All Things Considered and even had a humorous cartoon in Time Magazine for his coffee work. For the last 25 years he has been a National Tour Speaker for the American Chemical Society.

# Central Texas ACS: August 2013

## 2013 ACS Fellows

The American Chemical Society (ACS) Fellows Program was created by the ACS Board of Directors in December 2008 to recognize members of ACS for outstanding achievements in and contributions to science, the profession, and the Society. In 2013, three Central Texas ACS members joined the 96 distinguished members of the American Chemical Society that have been named as 2013 ACS Fellows. Nominations for the next class of Fellows will open in the first quarter of 2014.

### **Allen, David T. – The University of Texas at Austin**

*Contribution to the science/profession:* Recognized for contributions to atmospheric chemistry, air quality management, and environmental education.

*Contribution to the ACS community:* Serves on National Research Council and Environmental Protection Agency Science Advisory Board activities, providing scientific advice relevant to environmental policy

### **Soulen, Robert L. – Southwestern University (Emeritus)**

*Contribution to the science/profession:* As L.N. Pratt Professor of Science, utilized his background in industry to motivate and challenge gifted students toward professions in research, medicine, and education.

Recognized as Council for Advancement and Support of Education Gold Medalist and Texas Professor of the Year (1988).

*Contribution to the ACS community:* Has represented Central Texas chemists continuously since 1965 through service on Council, national committees, and task force groups. Has served on the Board for ACS, ACS Member Insurance Programs, and the Chemical Heritage Foundation.

### **Streusand, Barry J. – Applied Analytical, Inc.**

*Contribution to the science/profession:* Inspired excellence, innovation, and leadership in the application of science to the objectives of industry through the founding and management of Applied Analytical, Inc., and the co-founding of Bandgap Technology.

*Contribution to the ACS community:* Chaired two Local Sections (MI/TX) and served as a Councilor for 13 years from the Central Texas Local Section. Has served 20 years on ACS committees and had key involvement in the Society's Healthcare Public Policy Statement.

ACS Fellows from the Central Texas local section named in previous years

Allen J. Bard	2009
Donald R. Paul	2009
C. Grant Willson	2009
James E. Boggs (deceased)	2010
Benny D. Freeman	2011
Nicholas A. Peppas	2011

## **2013 Outreach Volunteer of the Year**

The local section would like to announce that Dodie Wells was nominated and selected as a 2013 Outreach Volunteer of the Year by ACS National. She has made wonderful contributions to our local section through her work with National Chemistry Week and Earth Day Celebrations.

Congratulations to Dodie!!!!

**American Chemical Society  
Central Texas Section  
P.O. Box 9811  
Austin, TX 78766**

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**Central Texas ACS: August 2013  
2013 Executive Committee: Officers and Program Directors**

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Chair & Chemistry Olympiad	Dr. Don Wharry	St. Edward's University	Awards Chair	Jackie Padilla	
Chair-Elect	Dr. Sandra Loudwig		Young Chemist Chair	Dr. Ariette Schierz	University of Texas
Past-Chair	Dr. James Lin	ATMI Inc.	EHS Chair	Katherine Cross	University of Texas
Secretary	Margaret Connor		Webmaster & High School Coordinator	Dr. Neal Grice	Dept State Health Services
Treasurer & Girl Scout Program	Betsy Shelton	Applied Nanotech, Inc.	Volunteer Coordinator		
Councilor 1 & Nominations Chair	Dr. Diane Kneeland	University of Texas	Historian Chair	Malcolm Prouty	Systems and Materials Research Corporation
Councilor 2 & Membership Chair	Dr. Linette Watkins	Texas State University	National Chemistry Week & Earth Day	Dodie Wells	Retired
Alt. Councilor 1 & Boy Scout Program	Dr. Barry Streusand	Applied Analytical, Inc.	Public Relations Chair	Dr. David Treadwell	
Alt. Councilor 2	Dr. Denny Wagoner	AnalySys Inc.	Newsletter Editor	Cotton Starr	University of Texas