



# Encore

The University of Texas at San Antonio™  
Research Centers in Minority Institutions

Volume 2: Issue 1 Jan-Apr 2013

**UTSA**®

Memorandum of Understanding formalized  
between *UTSA* and the *Ponce School  
of Medicine & Health Sciences*



**Congratulations to Dr. Perry**

**Appointed Semmes Foundation  
Endowed Chair in Neurobiology**



**Congratulations to Dr. Jose-Yacaman**

**Awarded the Mexican Scientific Council's  
Highest Distinction of Scientific Emeritus**



## Important Dates to Remember

**September** — *Dr. Sidney McNairy Talk*

**October 3-6** — *SACNAS Annual Convention*

**October 18** — *UTSA COS Research Conference*



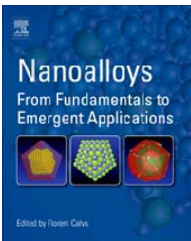
**Administrative  
Core Highlights**

- ▶ Ms. Christella Robledo formalized a Memorandum of Understanding (MOU) between UTSA and the Ponce School of Medicine & Health Sciences.
- ▶ Dr. Tsin published an article named, Optical and Spectroscopic Properties of Human Whole Blood and Plasma with and without Y2O3 and Nd3+:Y2O3 Nanoparticles and presented 4 talks in the ARVO Meeting held in Seattle, Washington for 2013.
- ▶ Dr. Perry was appointed the Semmes Foundation Endowed Chair in Neurobiology.
- ▶ In April, Dr. Perry gave the keynote lecture at an Alzheimer Symposium in Puebla, Mexico.
- ▶ Dr. Perry discussed Alzheimer’s research on Texas Public Radio’s “The Source.” (second segment on [www.tpr.org/post/source-measuring-economic-impact-eagle-ford-shale](http://www.tpr.org/post/source-measuring-economic-impact-eagle-ford-shale))



- ▶ The Core hosted two events this quarter - both were attended at maximum capacity
  1. Strategies for Correlative Microscopy in Biosciences Research - a lunch and webinar hosted in collaboration with Carl Zeiss Microimaging.
  2. Advanced Imaging Techniques in Fluorescence Microscopy: From Super Resolution to FCS to Correlative Imaging with EM - a lunch and seminar featuring Dr. Angela Bardo, a Systems and Applications Specialist for Carl Zeiss Microimaging.
- ▶ The Biophotonics Core had six publications between January and April.
- ▶ In April, the Core assisted in the PREM-hosted workshop on Materials World Modules given by Northwestern University.

**Biophotonics  
Core Highlights**



- ▶ In February, Dr. Jose-Yacaman was awarded the honor of Scientific Emeritus, the highest distinction in the Mexican Scientific Council.
- ▶ PhD candidate Nabraj Bhattarai is a recipient of the spring 2013 Presidential Dissertation Fellowship Award. Nabraj has worked as a research assistant under the supervision of Dr. Miguel Jose-Yacaman for three years.
- ▶ Drs. Jose-Yacaman and Ponce-Pedraza and their colleagues have published two Book Chapters; one of these is the book cover.
  1. “Experimental techniques for structural characterization” in Series Advances in IMAGING and ELECTRON PHYSICS in the Book Nanoalloys: From Fundamentals to Emergent Applications (ELSEVIER; book cover).
  2. “Advanced Methods of Electron Microscopy in Catalysis Research” in Series Advances in IMAGING and ELECTRON PHYSICS in the Academic Press (ELSEVIER).
- ▶ Dr. Garcia and his team have been the Editors of the book entitled “Fundamental Concepts, Practical Applications, and Limitations of Capillary Electrophoresis and Microchip Capillary Electrophoresis.”
- ▶ The Nanotechnology Core had eight additional publications between January and April.
- ▶ The Kleberg Advanced Microscopy Center provided tours to students from Stinson Middle School and to students in the Nanotechnology program at Northwest Vista College.

**Nanotechnology &  
Human Health Core  
Highlights**

- ▶ PhD student Chengwei Lei received an NSF travel award to attend RECOMB in Beijing, China. He also received the 2013 UTSA Graduate Research Award.
- ▶ PhD student Zhen Gao presented a paper in APBC in Vancouver, Canada.
- ▶ Dr. Ruan has published four manuscripts and Dr. Wang has published one manuscript.
- ▶ PhD student Chengwei Lei published a paper in Bioinformatics as first author and a paper in Nature Biotechnology with collaborators.
- ▶ PhD student Md Jamiul Jahid published a paper in BMC Genomics as first author and a paper in Nature Communications with collaborators.
- ▶ The CSBC successfully sponsored a workshop on performing life science research in an HPC environment. The Texas Advanced Computing Center (TACC) and the NIH Multiscale Modeling Consortium High Performance Computing working group were co-sponsors.



Protein Biomarker Core Highlights

- ▶ New instrumentation and algorithms in operation: MALDI/TOF/TOF/MS/MS; Bruker Image Prep system; Bruker ESI micro TOF with an APCI II source; Perkin Elmer JANUS Automated Sample Workstation; upgrade of Matrix Science Mascot (ver 2.4); Proteome Software Scaffold (ver 3.0 Q+S); FreezerWorks
- ▶ The following projects have resulted in manuscripts:
  - UTSA Small Grant Award - Protein Biomarkers of Chlamydia trachomatis
  - UTSA Small Grant Award - Dissecting the Aberrant Epigenome in Glioblastoma Multiforme (GBM) by Proteomic Analysis
  - Collaboration with Baylor College of Medicine/Texas Children’s Hospital
- ▶ The following grants/projects are in development:
  - UTSA Small Grant Award - Characterize the Host Proteome Induced by Tobacco PPD2
  - UTSA Small Grant Award - Growth Hormone Molecular Biology in Primates
  - UTSA Small Grant Award - Anti-Cancer Properties of Sandalwood Oil
  - NIMHD/RTRN Pilot Small Grant Program
- ▶ Collaborations with industry thought leaders
- ▶ Multi-university collaboration exploring RTRN survey for RTRN proposal: Innovative Technologies Cluster



- ▶ Jeremiah Babcock successfully defended his qualifying exam and has become a PhD candidate in the Physics Doctoral Program.
- ▶ Jeremiah Babcock published a manuscript as first author.

Research  
Project 1  
Highlights



Research  
Project 2  
Highlights

- ▶ RTRN presentation for the Infectious and Immunological Diseases Cluster by Dr. Forsthuber.

# RCMI Center for Interdisciplinary Health Research (CIHR)



The University of Texas at San Antonio, One UTSA Circle, San Antonio, TX 78249  
**Phone:** (210) 458-7741 **Fax:** (210) 458-5765 **Website:** www.utsa.edu/crts/rcmi

<b>Administrative Core</b>	<b><u>Principal Investigators</u></b> George Perry, PhD Andrew Tsing, PhD	<b><u>Scientific Associate Program Director</u></b> Thomas Forsthuber, MD, PhD	<b><u>Administrative Manager</u></b> Christella Robledo, BA
<b>Biophotonics Core</b>	<b><u>Core Leader</u></b> Colleen Witt, PhD	<b><u>Core Director</u></b> Colleen Witt, PhD	
<b>Nanotechnology and</b>	<b><u>Core Leader</u></b> Miguel Jose-Yacamán, PhD	<b><u>Core Director</u></b> Arturo Ponce-Pedraza, PhD	
<b>Computational Systems</b>	<b><u>Core Leader</u></b> Yufeng Wang, PhD	<b><u>Core Director</u></b> Zhiwei Wang, MCS	
<b>Protein Biomarkers Core</b>	<b><u>Core Leader</u></b> Stephan Bach, PhD	<b><u>Core Director</u></b> William Haskins, PhD	
<b>Research Project 1</b>	<b>Photo-Induced Unfolding of Cancer-Specific Membrane Receptors</b> Principal Investigator: Lorenzo Brancalion, PhD		
<b>Research Project 2</b>	<b>Biomarker Discovery in Glucocorticoid Resistance in EAE</b> Principal Investigator: Thomas Forsthuber, MD, PhD		
<b>Research Project 3</b>	<b>Advanced Data Processing for Capillary LC/MS Data</b> Principal Investigator: Jianqiu Michelle Zhang, PhD		

## Seminars in Translational Research (STRECH)

**Most recent seminar:** April 24, 2013

“Endovascular Simulator for Research, Development, Training and Treatment Planning” by Dr. Barry Lieber from Stony Brook University Medical Center.

The Seminars in Translational Research (STRECH) series is a collaborative project among UTSA RCMI, UTHSCSA IIMS and CTRC, and the UTSA-UTHSCSA Joint Graduate Program in Biomedical Engineering.

The seminars bring together basic and clinical researchers from UTSA and UTHSCSA to promote new multidisciplinary collaborations that foster the development of innovative theories, approaches, and technologies in clinical and translational research.

Seminars are normally held on the third Wednesday of the month, alternating between the UTSA and UTHSCSA campuses.

More details can be found on the STRECH website:

<http://translationalseminars.utsa.edu>

## Christella's Corner



- ⇒ Reminder: Update RTRN Profiles as it is an essential part of collaborating within the RCMI community.
- ⇒ Great Job RCMI @ UTSA: RCMI Annual Report submitted successfully on 4/29/13.
- ⇒ Important: For all those using the core facilities, please remember to acknowledge the RCMI at UTSA grant. (G12MD007591)
- ⇒ Link your eRA Commons with My NCBI if you haven't already done so. This is a newly implemented policy that is required for NIH reporting.