

Encore



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

Volume 2: Issue 2 May-Oct. 2013

UTSA hosted

Dr. Sidney A. McNairy, Jr.,



former NIH Associate Director Research Infrastructure, NCR

September 25th, 2013 Link to Presentation:

<http://www.youtube.com/watch?v=52WfrVdwHvE>



**Congratulations to the
RCMI @ UTSA**



For successfully executing
the educational component of the
International Museum
of Art and Science's
Quantics exhibit, in McAllen, TX



This newsletter was supported by a grant from the National Institute on Minority Health and Health Disparities (G12MD007591)
from the National Institutes of Health

- ▶ **Dr. Andrew Tsin** was awarded the 2013 AAAS Life Time Mentor Award.
- ▶ **Dr. George Perry** was awarded the Martin Goland Award of Sigma XI Alamo Chapter.
- ▶ **Dr. George Perry** was appointed to the Santa Casa Misericordia Neuroscience Awards Committee, as well as the President of the Southwestern and Rocky Mountain (SWARM) Division of AAAS.
- ▶ **Dr. George Perry** was also identified as a Person of Note by the Azorean government.
- ▶ In **September 2013**, **Dr. George Perry** was interviewed by the San Antonio Express-News for the article, "UTSA Dean has Own Idea on Alzheimer's."
- ▶ On **October 18, 2013**, RCMI served as a gold sponsor of the **2013 UTSA College of Sciences Research Conference**. (Picture on page 3).
- ▶ On **October 3-6, 2013** **UTSA** partnered with the **SACNAS** organization as a platinum sponsor.
- ▶ The Pls' most recent Publications:
 - **Dr. George Perry** has published **12 publications and abstracts** since May, four are listed below.
 - Williams WM, Torres S, Siedlak SL, Castellani RJ, Perry G, Smith MA, Zhu X. **"Antimicrobial Peptide Beta-Defensin-1 Expression is Upregulated in Alzheimer's Brain."** *J Neuroinflammation*. 2013 Oct 18;10(1):127. PMID: 24139179.
 - Correia SC, Perry G, Castellani R, Moreira PI. **"Is Exercise-in-a-Bottle Likely to Proffer New Insights into Alzheimer's Disease?"** *J Neurochem*. 2013 Oct;127(1):4-6. doi: 10.1111/jnc.12406. PMID: 24074055.
 - Mondragón-Rodríguez S, Perry G, Zhu X, Moreira PI, Acevedo-Aquino M, Williams S. **"Phosphorylation of tau protein at sites Ser396-404 is one of the earliest events in Alzheimer's disease and Down syndrome."** *Neuropathol Appl Neurobiol*. 2013 Aug 23. doi: 10.1111/nan.12084. PMID: 24033439.
 - Fujioka H, Phelix C, Perry E, Zhu X, Perry G. **"Apolipoprotein E4 Inhibits Growth of Plasodium in Culture."** *Journal of Neuropathology and Experimental Neurology* 2013; 72(6), 582-582.
 - Obregon D.I., Betts-Obregon, B.S., Yust B, Pedraza F., Ortiz A., Sardar D, and Tsin, AT. **"Effect of Silver Coating on Barium Titanium Oxide Nanoparticle Toxicity."** *Advanced Materials Research*, Vol. 787 (2013) pp 404-407. © (2013) Trans Tech Publications, Switzerland. doi:10.4028/www.scientific.net/AMR.787.404 , 2013.



Photo Courtesy of the San Antonio Express-News

- ▶ In **October 2013**, **Dr. Annette Rodriguez** presented the abstract, "Microbial Infection Contributes to Altered Pancreatic Beta Cell Function," at **2013 SANCAS National Conference**.
- ▶ On **October 18, 2013**, **Dr. Annette Rodriguez** presented the abstract, "Mast Cell-Macrophage Interactions Control Microbial Replication," at **2013 UTSA College of Sciences Research Conference**.
- ▶ The core's most recent Publication:
 - Liu SS, Li AY, Witt CM, Pérez de León AA. **"Effects of Reserpine on Reproduction and Serotonin Immunoreactivity in the Stable Fly Stomoxys Calcitrans (L)."** *J Insect Physiol*. 2013 Sep;59(9):974-82. doi: 10.1016/j.jinsphys.2012.12.008. PubMed PMID: 23321479.

- ▶ In **October 2013**, **Dr. Yufeng Wang** visited Ponce School of Medicine & Health Sciences, a sister school within the RCMI community to collaborate with researchers on computational systems biology approaches and to present a seminar– thus furthering the work started thanks to the Memo of Understanding formalized between The University of Texas at San Antonio and Ponce School of Medicine & Health Sciences.



▶ **Dr. Miguel Jose-Yacaman**, Core Leader of UTSA's RCMI Nanotechnology and Human Health Core facility, and well-known **sculptor Sebastián** collaborated on the **Quantics: The Art & Science of Sebastián** exhibit - a display of the visual comparison of artistic and scientific work showing the character of the art of science. The exhibit opened on [October 10, 2013](#) at McAllen's International Museum of Art & Science.

▶ The National Institute on Minority Health and Health Disparities (NIMHD) at the National Institutes of Health (NIH) has awarded UTSA \$191,146 to fund the purchase of additional equipment for the RCMI program's Nanotechnology and Human Health Core.

▶ **Dr. Carlos Garcia** and his colleague published an abstract. Benavidez TE, Garcia CD, "**Potential-Assisted Adsorption of Bovine Serum Albumin onto Optically Transparent Carbon Electrodes.**", *Langmuir*, 2013 Oct 24. PMID: 24156567.

▶ **Dr. Arturo Ponce-Pedraza** former Director of the KAMC & of the Nanotechnology Core was recently appointed Assistant Professor of Physics in Astronomy at UTSA, starting [Fall 2013](#).



▶ The **PBC** has new instrumentation and algorithms in operation: Multiwave Pro Microwave system for sample digestion and synthesis used by multiple researchers across chemistry, physics, and biology.

▶ The core's most recent Publications:

- Tlahuice-Flores A, Black DM, Bach SBH, Jose-Yacaman, M, Whetten RL, "**Structure & Bonding of the Gold-Subhalide Cluster I-Au₁₄₄Cl₁₆₀[z]**", *Phys. Chem. Chem. Phys.*, 2013 Oct 23;15(44):19191-5. doi: 10.1039/c3cp53902d. PMID: 24105400
- Haskins WE, Zablotsky BL, Foret MR, Ihrie RA, Alvarez-Buylla A, Eisenman RN, Berger MS, Lin CHA, "**Molecular Characteristics in MRI-classified Group 1 Glioblastoma Multiforme**", *Frontiers in Oncology*, 2013 Jul 11;3:182. Doi: 10.3389/fonc.2013.00182. PMID: 23875172. PMCID: PMC3708153.

▶ The cores most recent Grants awarded:

- NIMHD/RTRN Pilot Small Grant for "**Novel Antibodies for Anti-CRLF2 Antibody-Armored Biodegradable Nanoparticles for Childhood B-ALL**" William E. Haskins (UTSA), Kirken R (UTEP)
- CPPS Pilot Award for "**Microwave & Magnetic (M2) Proteomics of Hepatocellular Carcinoma**"



▶ The project's recent Publications and Manuscripts are:

- Farooqi, M.J.**, Penick, M., Negrete, G.R., Brancaleon, L., 2013, "**Interaction of Human Serum Albumin with Novel 3,9-Disubstituted Perylenes.**" *The Protein Journal* 32:493-504. doi:10.1007/s10930-013-9508-z IF = 1.12. PMID: 23975144

▶ Over the summer **Dr. Lorenzo Brancaleon** mentored Shana Le, a student from St. Mary's University who was accepted in the **PASEMEN Program funded by NSF**. Recently Shana Le also presented the poster: "**Interaction of Pteridine Ligands with Globular Proteins Using Optical Spectroscopies.**" at the **2013 UTSA College of Sciences Research Conference**.



RCMI Center for Interdisciplinary Health Research (CIHR)



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Phone: (210) 458-7741 **Fax:** (210) 458-5765 **Website:** www.utsa.edu/crts/rcmi

Administrative Core	<u>Principal Investigators</u>	<u>Scientific Associate Program Director</u>	<u>Administrative Manager</u>
	George Perry, PhD Andrew Tsin, PhD	Thomas Forsthuber, MD, PhD	Christella Robledo, BA

Biophotonics Core	<u>Core Leader</u> Colleen Witt, PhD	<u>Core Director</u> Colleen Witt, PhD
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Nanotechnology and Human Health Core	<u>Core Leader</u> Miguel Jose-Yacamán, PhD	<u>Core Director</u> Arturo Ponce-Pedraza, PhD
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Computational Systems Biology Core	<u>Core Leader</u> Yufeng Wang, PhD	<u>Core Director</u> Zhiwei Wang, MCS
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Protein Biomarkers Core	<u>Core Leader</u> Stephan Bach, PhD	<u>Core Director</u> William Haskins, PhD
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Research Project 1	Photo-Induced Unfolding of Cancer-Specific Membrane Receptors Principal Investigator: Lorenzo Brancaleon, PhD
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Research Project 2	Biomarker Discovery in Glucocorticoid Resistance in EAE Principal Investigator: Thomas Forsthuber, MD, PhD
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Research Project 3	Advanced Data Processing for Capillary LC/MS Data Principal Investigator: Jianqiu Michelle Zhang, PhD
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Christella's Corner



- ⇒ **Important:** For all those using the core facilities, please remember to acknowledge the RCMI at UTSA grant. (*G12MD007591*)
- ⇒ If you would like to apply for the Sidney A. McNairy RCMI Small Grant Program go to <http://utsa.edu/crts/rcmi/> (*application can be found at the bottom of the main page*).
- ⇒ **DECEMBER 1-3, 2014, International Symposium on Minority Health & Health Disparities** at the Gaylord National Resort and Convention Center in National Harbor, Maryland.

Seminars in Translational Research (STRECH)

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.

- * **Next Seminar:** M. Margarita Behrens, PhD, **Dynamic Changes in Neuronal DNA-methylation Patterns During Brain Development**, to be held on **November 20th, 2013** from 4:00 pm to 5:00 pm at the UT Health Science Center-SA (Medical School, Room 409L)
 STRECH website: <http://translationalseminars.utsa.edu>