

## Biographical Sketch

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### **ZALLY TORRES MARTINEZ**

#### CURRENT STATUS

PhD Candidate  
Dept. Chemistry, UPR-Rio Piedras

EMAIL: zallytorres@gmail.com

#### EDUCATION:

2009 BS Industrial Chemistry  
2018 PhD Chemistry (expected)

#### CURRENT RESEARCH INTEREST

My research has focused on the development of lipid-based nanoparticles from natural product for its implementation on drug delivery systems as a potential cancer therapy.

#### RESEARCH AND PROFESSIONAL EXPERIENCE

**Ph.D. Thesis project** (present) Dept. Chemistry, University of Puerto Rico Rio Piedras Campus. Advisor: Dr. Kai Griebenow.

**Special training** (Feb 2012). University of Texas, Austin, TX.

**Teaching assistant** (2010-2011, 2014-2015). Special topics in Physical Chemistry.

**Side project** (2009-2010) Advisor: Dr. Liz Diaz. Sponsored by NASA

**Laboratory Technician** (2009) Dept. of Chemistry, University of Puerto Rico Humacao. Advisor: Dr. Gabriel Barletta.

**Quality Control Analyst** (2008) Novartis-ExLax, Humacao PR

**B.Sc. project** (2004- 2008) Dept. of Chemistry, University of Puerto Rico Humacao. Advisor: Dr. Gabriel Barletta. Sponsored by National Institute of Health

#### HONORS

- 2004 Puerto Rico Alliance for the Advancement of Biomedical Research Excellence (PRAABRE) fellowship
- 2010 Alfred P. Sloan foundation Minority Program Award
- 2011 Center for Renewable Energy and Sustainability (CRES) fellowship
- 2012 National Aeronautics and Space Administration-University Research Centers (NASA-URC) fellowship
- 2014 Golden Key International Honor Society
- 2014 Center for Renewable Energy and Sustainability (CRES) fellowship
- 2016 Research Initiative for Scientific Enhancement (RISE) Fellowship

## RECENT PRESENTATIONS

Zally Torres and Kai Griebenow. 'Biochemical composition and adaptation performance of the photosynthetic apparatus of Caribbean marine macro algae under different environmental conditions'. Pan-American Advanced Studies Institute (PASI), San Jose, Costa Rica. (August 2013).

Zally Torres, Lorna de la Cruz, Freisa Joaquin and Kai Griebenow. Biochemical composition of the photosynthesis apparatus of the Caribbean marine macro algae *Chaetomorpha vieillardii*. JTM/PRISM, Rio Piedras, PR, US. (March 2015).

Freisa M. Joaquín, Grace Guihurt, Zally Torres, Catalina Dávila, Dr. Kai Griebenow, "Photosynthetic apparatus complexes organization of Photosystem I and Photosystem II in *Botryococcus braunii*". JTM/PRISM, Rio Piedras, PR, US. (March 2015).

Rohit K. Sharma, Manoj Saxena, Feisa M. Joaquim, Zally Torres and Kai Griebenow. "Applications of renewable lipase nanoparticles for sustainable production of biodiesel and glycerol transformation in nanoaqueous environment" Conference of Algal Biomass, Biofuel and Bioproducts, San Diego, USA. (June 2015).

F.M. Joaquín-Ovalle, G. Guihurt, Z. Torres-Martínez, Y. Morales-Lozada, J. Ramirez-Paz, V. Barceló-Bovea, K. Griebenow. Purification and Biophysical Characterization of the Photosystem I Complex from *Botryococcus braunii*. Experimental Biology 2016. San Diego CA, USA. (April 2016)

Zally Torres, Yamixa Delgado, Anna Molina, Cindy Figueroa, Gerardo Resto, and Kai Griebenow. Stigmasterol-Hyaluronic Acid Nanoparticles for Cancer Therapy. American Society for Cell Biology (ASCB) Meeting. San Francisco CA (December 2016 )

Zally Torres, Yamixa Delgado, Anna Molina, Cindy Figueroa, Gerardo Resto, and Kai Griebenow. Development of targeted Stigmasterol-Solid Lipid Nanoparticles by Hyaluronic acid and Transferrin for Lung Cancer Therapy. American Chemical Society (ACS) National Meeting. (April 2017)

## CO-AUTHORED PUBLICATIONS

Figueroa CM, Suárez BN, Molina AM, Fernández JC, Torres Z, and Kai Griebenow. (2017) Smart Release Nano-formulation of Cytochrome C and Hyaluronic Acid Induces Apoptosis in Cancer Cells. *J Nanomed Nanotechnol* 8: 427. doi: 10.4172/2157-7439.1000427

Molina AM, Berrios KN, Figueroa CM, Torres Z and Griebenow K. A protein-drug nano platform for cancer combination therapy. Pending submission