

Biographical Sketch

Juan C. Villalobos-Santos

Current Status

PhD Candidate
Department of Biology
University of Puerto Rico, Río Piedras

Email: juan.villalobos@upr.edu

Education

2009-2015	BS Human Biology
2016-Present	UPR-Río Piedras
2021	PhD Biology (expected)

Current Research interest: My research is mainly focused in the functional and structural study of the human $\alpha 4\beta 2$ nicotinic acetylcholine receptor (nAChR). I intend to characterize the function of detergent-solubilized $\alpha 4\beta 2$ nAChRs through electrophysiological methods, and describe the effects of changes in the immediate lipid environment.

Research Experience

2017-Present	UPR-MSRC, Research Assistant (Dr. Lasalde-Dominicci)
2015-2017	UPR- MSRC, Research Assistant (Mentor, Dr. López-Mejías).
2015	Center for Disease Control and Prevention (Mentor, Dr. Hunsperger).
2014-2015	UPR-Molecular Sciences Research Center, Undergraduate Research Assistant (Mentor, Dr. G. Morell).

Honors

2018-Present	Research Initiative for Scientific Enhancement (Rise) fellow.
2016-2018	Puerto Rico Louis Stokes Alliance for Minority Participation fellow.
2015-2016	Institute of Functional Nanomaterials (IFN) Research Assistantship.
2015	Materials Research Congress, Cancun-Mexico. Third Place in poster presentation.

Presentations at International Meetings

Villalobos-Santos J., Lasalde-Dominicci J. "Expression and Characterization of the Human $\alpha 4\beta 2$ Acetylcholine Receptor for Functional Characterization Using Macroscopic Electrophysiology", Biophysical Society Meeting, San Francisco CA, February 2018.

Villalobos-Santos J., Ramos C., Avalos-Cavero B., Velázquez R., Habiba K., Jiménez M., Avalos J., Winer B., Morell G. "Effects of Ag-GQD Nanocomposites on the Bacterial Growth of *S. aureus* and *P. aeruginosa* When Electroporated"- Materials Research Congress, Cancun-Mexico, August 2015.

Presentations at Local Meetings

Villalobos-Santos J., Febo-Toledo P., López-Mejías V., “Biocompatible-Tailored-Nanocrystals-Drug Nanocarriers for Colorectal Cancer Treatment”, Lilly Academy Technical Forum. San Juan PR, Pedro Roselló Convention Center, March 2017.

Villalobos-Santos J., Febo-Toledo P., López-Mejías V., “Biocompatible-Tailored-Nanocrystals-Drug Nanocarriers for Colorectal Cancer Treatment”, Puerto Rico Forward Summit, San Juan PR, Hotel Sheraton September 2016.

Villalobos-Santos J., Febo-Toledo P., López-Mejías V., “Enhanced in vitro Cell Proliferation of Vero Cells Tested with Alginate/Chitosan blends”, Lilly Academy Technical Forum. San Juan, PR, Pedro Roselló Convention Center, May 2016

Villalobos-Santos J., Febo-Toledo P., López-Mejías V., “Enhanced in vitro Cell Proliferation of Vero Cells Tested with Alginate/Chitosan blends”, 2016 EPSCoR IFN Annual Meeting. Caguas, PR, Four Points hotel, April 2016.

Villalobos-Santos J., Febo-Toledo P., Hernández M., López-Mejías V., “Effect of Sodium Alginate Concentration in the Viability of Lewis Lung Carcinoma Cell Line”, 2nd Cell & Molecular Biology Meeting of the American Society for Biochemistry and Molecular Biology, University of Puerto Rico Río Piedras, San Juan PR, November 2015.

Publications

Khaled Habiba, Dina P. Bracho-Rincon, Jose A. Gonzalez-Feliciano, **Juan C. Villalobos-Santos**, Vladimir I. Makarov, Darinel Ortiz, Javier A. Avalos, Carlos I. Gonzalez, Brad R. Weiner, Gerardo Morell: “*Synergistic Antibacterial Activity of PEGylated Silver-Graphene Quantum Dots Nanocomposites*”. Published on: **Applied Materials Today 1 (2015) 80-87.**

Khaled Habiba, Joel Encarnacion-Rosado, Kenny Garcia, **Juan C. Villalobos-Santos**, Vladimir I. Makarov, Javier A. Avalos, Brad R. Weiner, Gerardo Morell: “*Improving Cytotoxicity against Cancer Cells by Chemo-photodynamic Combined Modalities Using Silver-Graphene Quantum Dots Nanocomposites*”. Published on: **International Journal of Nanomedicine 2016:11 107-119**

Barbara Manfredi, Jessica Morales-Ortiz, Lymarie M. Díaz-Díaz, Liz Hernandez-Matias, Delmaliz Barreto-Vázquez, Javier Menéndez-Pérez, J. Alejandro Rodríguez-Cordero, **Juan C. Villalobos-Santos**, Edgardo Santiago-Rivera, Adriana Rivera-Dompenciel, Eunice L. Lozada- Delgado, Madhavi Kuchibhotla, and A. Valance Washington: “*The Characterization of monoclonal antibodies to mouse TLT-1 suggests that TLT-1 plays a role in wound healing*” Published on: **Monoclonal Antibodies in Immunodiagnosis and Immunotherapy, Volume 37, Number 2, 2018.**