



## MARIELA RIVERA SERRANO

### Current Status

PhD student

Department of Biology, University of Puerto Rico, Rio Piedras campus

**Email:** mariela.rivera20@upr.edu

### Education

|              |   |
|--------------|---|
| 2006-2011    | BS Biology, University of Puerto Rico, Rio Piedras campus |
| 2012-2013    | MS Biomedical Research, University of Navarra, Spain      |
| 2019-present | University of Puerto Rico, Rio Piedras campus             |
| 2024         | PhD Biology (expected)                                    |

**Current Research Interests:** My research is focused on elucidating the molecular mechanisms behind MMP-3 influence on cisplatin resistant High-Grade Serous Ovarian Cancer progression and metastasis with the long-term goal of developing improved treatment methods for ovarian cancer patients.

### Research Experience

|              |   |
|--------------|---|
| 2019-present | Researcher in formation, University of Puerto Rico, Rio Piedras campus. Under the direction of Dr. Pablo Vivas-Mejía.   |
| 2014-2019    | Lab Manager, Biomedical Proteomics Facility, Universidad Central del Caribe, School of Medicine, Bayamón, Puerto Rico. Under the direction of Dr. Nawal Boukli.                 |
| 2012-2013    | Researcher in formation, Center for Applied Medical Research (CIMA), University of Navarra, Pamplona, Spain. Under the direction of Dr. Alfonso Calvo and Dr. Anne-Marie Bleau. |
| 2007-2009    | Researcher in formation, University of Puerto Rico, Rio Piedras campus. Under the direction of Dr. Tugrul Giray.  |

### Honors

|           |   |
|-----------|---|
| 2020      | Research Initiative for Scientific Enhancement (RISE) Fellowship    |
| 2019      | Puerto Rico Boost Grant   |
| 2010      | Science and Mathematics Access to Retain Talent (SMART) scholarship |
| 2006-2010 | Honor's Roll  |

### Posters

Díaz, A; Pérez, I; **Rivera, M**; Alves, J and Zayas, A (2019). HIV-1 Tat mediated changes in the blood retinal barrier. 27th Puerto Rico Neuroscience Conference. Bayamon, Puerto Rico. December 7.

## Biographical Sketch

Rodríguez, M, Alvarez, E, Lopez S, **M Rivera**, Kucheryavykh L, and Boukli NM (2017). PSP induces a TLR4 IFN anti-HIV response in human monocytes. 16th Human Proteome Organization World Congress (HUPO). Dublin, Ireland. September 17-21.

Lopez S; Rodríguez, M; **Rivera, M**, Babu, M, Wang, G, Kucheryavykh, L and Boukli NM (2017). GRP78 Cytoprotective Driven Mechanism Induced by Gp120 HIV Clade B/C in Human Astrocytoma. V International Conference on Analytical Proteomics. Caparica, Portugal. July 3–6

Boukli NM; **Rivera, M**, Burton,L, Wang, G, Cubano,L and Odero,V (2016). Muscadine Grape Skin Extract Induces an Unfolded Protein Response Mediated Autophagy in Prostate Cancer Cells. 15th Human Proteome Organization World Congress (HUPO); Taipei, Taiwan September 18-22.

Lopez S; Rodríguez, M; **Rivera, M**, LA Cubano and Boukli NM (2016). Isobaric Tagging-Based MS Quantification of HIV-1/gp120/Tat in Astrocytoma: Implications for HIV-associated Neurodegeneration. 15th Human Proteome Organization World Congress (HUPO); Taipei, Taiwan September 18-22.

## Publications

López SN, Rodríguez-Valentín M, **Rivera M**, Rodríguez M, Babu M, Cubano LA, et al. HIV-1 Gp120 clade B/C induces a GRP78 driven cytoprotective mechanism in astrocytoma. *Oncotarget*. 2017 Jul 22;8(40).

**Rivera M**, Ramos Y, Rodríguez-Valentín M, López-Acevedo S, Cubano LA, Zou J, et al. Targeting multiple pro-apoptotic signaling pathways with curcumin in prostate cancer cells. Ahmad A, editor. *PLoS One*. 2017 Jun 19;12(6):e0179587.

Burton LJ, **Rivera M**, Hawsawi O, Zou J, Hudson T, Wang G, et al. Muscadine Grape Skin Extract Induces an Unfolded Protein Response-Mediated Autophagy in Prostate Cancer Cells: A TMT-Based Quantitative Proteomic Analysis. Jin D-Y, editor. *PLoS One*. 2016 Oct 18;11(10):e0164115.

Rodríguez-Valentín M, López S, **Rivera M**, Ríos-Olivares E, Cubano L, Boukli NM. Naturally Derived Anti-HIV Polysaccharide Peptide (PSP) Triggers a Toll-Like Receptor 4-Dependent Antiviral Immune Response. *J Immunol Res*. 2018 Jul 15;2018:1–14.