

Summary of the TSHNA week experience for Jessica Morales-Ortiz

University of Utah

01-19-2018 to 01-27-2018



My name is Jessica Morales, and I received the Travel-to-a-mentor Award of the Thrombosis and Hemostasis Societies of North America this year 2018. As part of this experience I travel to the University of Utah and I worked for a week under the mentoring of Dr. Matthew T. Rondina starting from 01-19-2018 to 01-27-2018.

Dr. Rondina is a physician-scientist who has collaborated with clinicians and basic researchers in the study of platelets and megakaryocyte's contribution in dysregulated thrombotic, hemostatic, and inflammatory diseases. The timeline for the selected week was scheduled to start with a (I) meeting with Dr. Rondina focused on the discussion of different alternatives for post-doctoral positions as well as for research projects in his laboratory. That conversation provided me with an higher number of interpersonal scientific discussions within my field of study, which will translate into invaluable feedback for my research from both a clinical and a scientific point of view. The week started with a training in the use of flow cytometry and cytometric analysis to answer the question of whether the platelet receptor known as TREML1 (TLT-1) would be modulating fibrinogen endocytosis by platelets. Preliminary data from our laboratory suggests that TLT-1 binds fibrinogen and modulates platelets responses during activation such as integrin signaling. Therefore we test our hypothesis by treating platelets with or without a monoclonal antibody against platelet-TLT-1. This training was provided by Dr. Robert Campbell who is a Research Assistant Professor at the University of Utah, he provided me with technical consultation and training for both experiment design and equipment use in their BD FACSCanto-II analyzer. Moreover, as part of this experience; I also learned 2 different platelet isolation protocols for human blood samples which I will be implementing in my current research. The second part of the week (II) included animal training work. I hypothesized that TLT-1 was modulating edema and permeability during inflammatory processes. Therefore to ask that question we challenge mice with LPS from *Pseudomonas aeruginosa* and I was though on how to realize a bronchoalveolar lavage (BAL) to measure protein concentration in lungs of wildtype mice treated with LPS in the presence or absence of anti-TLT-1 monoclonal antibody. Protein concentration was measured and BAL fluid was evaluated for cell expression.

The third and last section of my week with Dr. Rondina's research group at the University of Utah, focused in participation of a laboratory meeting where their current research was scientifically discussed. This experience facilitated further scientific discussions and the exchange of new ideas. Finally, I had a second meeting Dr. Rondina at the end of the week to discuss potential collaborations and future post-doctoral work opportunities. I was offered a post-doctoral position which will be hopefully starting at fall this year in Dr. Rondina's laboratory. From this experience, I had the opportunity to expand my research, establish new connections, learn in new skills and expose my work to other experts that are experts in the study of platelets. This was a unique opportunity for me to experience the field of platelet research outside of Puerto Rico, and I am confident that the set of transferable skills and tools gained will help in my transition from a graduate student to a PhD expert in thrombosis and hemostasis.