I embarked on my sabbatical leave during the fall of 2016 after earning my tenure in 2014. I had the privilege to receive a 2016 – 2017 U.S. Fulbright Scholar Award to the Slovak Republic. My sabbatical leave together with my Fulbright award provided me firstly with the opportunity to enhance my research spectrum by working with Dr. Magdaléna Májeková at the Institute of Experimental Pharmacology and Toxicology (IEPT) of the Slovak Academy of Sciences (SAS) in Bratislava, the Slovak Republic. Dr. Májeková is an expert in biophysics and medicinal chemistry. My sabbatical leave and Fulbright research focused on sarco/endoplasmic reticulum Ca^{2+}-ATPase (SERCA), which is a transmembrane enzyme that plays a central role in regulating cytosolic Ca^{2+} concentration and maintaining calcium homeostasis within the cells (Figure 1). This enzyme is involved in Ca^{2+} signaling mechanisms in many biological functions, including muscle contraction, gene expression, cell motility and apoptosis. SERCA dysfunction has been associated with age-related diseases and various pathophysiological conditions such as cardiovascular diseases, neurodegenerative disorders, muscular diseases, inflammation and cancer. Dr. Májeková’s group (Figure 2) has observed and proposed several conformational states for the catalytic cycle of SERCA. Some of them are unstable and therefore not suitable for crystallization and labeled conformational study. In their studies they found that flavonoid rutin, a powerful antioxidant, stimulates SERCA activity and efficiently protected SERCA from oxidative damage. In addition, they have also found some interesting facts dealing with flavonoid rutin, its lipophilic derivatives acylated with fatty acids and original fatty acids, which resulted in different effects on the activity of SERCA. Thus, we aim at studying these effects by means of computational biophysics approaches using Molecular Dynamics simulations. The results of this study will help to better understand which conformation of SERCA is responsible for the interaction with these rutin derivatives and to determine key ligand-protein interactions. This research will ultimately contribute to the finding of therapeutic approaches with the potential to target neurodegenerative, muscle, cancer, cardiovascular and heart diseases. We have established a good collaboration that we hope will keep bringing fruitful
scientific outcomes. An article about our research has recently been published in the Computing Center of the Slovak Academy of Sciences HPC Focus. In addition, during my sabbatical leave, I was able to disseminate my research as a guest speaker at the Slovak Academy of Sciences, attend a conference in Verona, Italy, and meet with my collaborators at the Consejo Superior de Investigaciones Científicas in Madrid, Spain with whom we recently published a peer-reviewed article in the *Journal of Medicinal Chemistry*.

**Secondly,** my sabbatical leave also played a key role in letting me get to know the Slovak culture. The cultural exchange was very enriching (*Figures 2 and 3*). I was introduced to folk dancing, yoga, and drumming. **Thirdly,** my sabbatical leave also allowed me to travel and expand my horizons in new worlds, new cultures and new people. The sabbatical leave gave me time to reflect personally and professionally. It was a period to reflect about what to do next, how to become a better person, a better colleague, a better scholar, and to place things in perspective. I feel truly humbled and honored and I am thankful for this opportunity. My current and future students will benefit from this experience as I will increase their research visions as well as instill in them the determination and passion to remain in Science, Technology, Engineering and Mathematics (STEM) fields. I am very thankful to Hostos and my colleagues at the Icahn School of Medicine at Mount Sinai in New York who have supported and helped me through my scholarly and professional growth during my tenure at CUNY.

Overall my sabbatical leave together with my Fulbright experience was truly rewarding and inspirational, both professionally and personally. I encourage everyone to work toward taking a sabbatical and to use it to expand professional horizons. This experience has reinforced my passion for teaching and research. The many great moments and recollections from my stay in Slovakia that are now vivid in my memory will definitely all be with me for the rest of my life. I thank Fulbright, Slovakia, Hostos and the CUNY family very much for having given me this incredible opportunity.
Dr. Yoel Rodríguez is Theoretical Biophysicist and Professor of Physics and Chemistry in the Natural Sciences Department of Hostos Community College (HCC) of The City University of New York (CUNY), and the Coordinator of the HCC Joint Dual Engineering Degree Program with The City College of New York’s (CCNY) Grove School of Engineering (GSoE) of CUNY. He received his B.S. degree in Chemistry (Physical Chemistry field; Summa Cum Laude) from Havana University in July 1995, and his Ph.D. in Theoretical Biophysics (Summa Cum Laude) at Complutense University of Madrid, Spain in October 2002. He came to New York to do his postdoctoral training at Icahn School of Medicine at Mount Sinai (ISMMS) in Computational Biophysics from 2003 to 2007. He is a Visiting Professor at ISMMS in the Pharmacological Sciences Department. He has published several peer-reviewed research articles and presented at several conferences. Dr. Rodríguez’s research interest is directed toward applying Computational Theoretical Biophysics approaches to better understanding of fundamental molecular mechanisms in biological processes with implications in cancer and cardiovascular diseases. Dr. Rodríguez is also captivated by STEM pedagogical research. He has received multiple educational and research grants, including research supplements from the National Institute of Health, CUNY Professional Staff Conference research grants, a CUNY Chancellor’s Research Fellowship, Fulbright Scholar award, and recently a CUNY Community College Research Grant. Dr. Rodríguez has mentored many undergraduate students in research. One of his students, Dane Christie, B.E. in Chemical Engineering, is currently pursuing his Ph.D. degree at Princeton University. A second one, Ms. Wendy Fernández, currently at CCNY’s GSoE in Electrical Engineering, is recipient of two national awards for her outstanding research work in the 2015 Annual Biomedical Research Conference for Minority Students (ABRCMS) and in the 2016 Society for Advancement of Chicanos/Hispanics & Native Americans in Science (SACNAS). In addition, Dr. Rodríguez was invited to deliver a plenary presentation about the HCC Engineering Program with CCNY’s GSoE at the 2015 Understanding Interventions Conference in San Diego.