Hurricane Maria

WE RISE UP!!!
Santa Maria Academy, Caribbean School and Colegio San Conrado (100 students) were impacted at Pontifical Catholic University with the help of Ponce Health Sciences University (November 13, 2017) and Presbiterian Academy (November 19, 2017).

100 students participated in the PHUN week event. Coordinates by Dr. Gladys Chompre, Myreliz Cruz, Dr. Dihna Ramos, and Dr. Cariluz Santiago.

21 students participated in the PHUN week event. Coordinates by Dr. Gladys Chompre, Christine Rodríguez, Agnes González, and Samuel Brofen.
Super “PhUn Day” in Ponce, Puerto Rico

The 12th Physiology Understanding (PhUn) week was celebrated on November 6-10th, 2017. The K-12 outreach program is coordinated by the American Physiological Society (APS) and organized locally by members of the Puerto Rico Physiological Society (PRPS). In Ponce, the activity took place at Pontifical Catholic University of Puerto Rico (PUCPR). Despite the difficult situation left in Puerto Rico after the devastating Hurricane Maria, the local organizers decided to continue with the planning. Dr. Gladys Chompré (APS Member and PRPS committee member) from PUCPR organized a “PhUn Day” on November 10th, with a team formed by graduate students, technicians and faculty from both Ponce Health Sciences University (PHSU) and PUCPR. Three schools from Ponce were invited to participate and enjoyed a morning full of science learning experiences.

With lots of enthusiasm, the activity started with a short presentation to 3rd and 4th grade students of Academia Santa Maria. Dr. Gladys Chompré’s presentation was about Physiology and what do Physiologists do. She used herself as an example of a Physiologist. Then, Dr. Dinah Ramos (PUCPR faculty) introduced the nervous system, its parts and function. She explained about the brain lobes, neurotransmitters and the function of each one. She made evident how Physiology is involved in our daily activities. The students demonstrated lots of interest in this system and asked questions to Dr. Ramos, which helped to create a good learning interaction. At the end, a short video was presented to demonstrate the neural interactions. As a follow up, students in 8th grade from Caribbean School and 11th grade from Colegio San Conrado attended the same presentations but with a higher level of complexity. In the meantime, third and fourth grade students from Academia Santa Maria were divided into groups and busy doing interactive activities. The stations consisted of 1) Brain histology 2) Optical illusions 3) Hippocampus function 4) Neuroscience applied to marine sciences 5) Cerebellum function, and 6) Brain anatomy (demonstration of a real human brain).

After the presentations, middle and high school students participated in the interactive activities as well. They were divided into smaller groups of ten to twelve students to rotate through the previously mentioned stations arranged in the Environmental Sciences building including: Undergraduate Research Laboratory Environmental Sciences laboratory, Marine Science laboratory and classrooms. The Cerebellum function activity was performed in an outside space, while the Brain anatomy demonstration was held in the Neuroscience research laboratory of Dr. Zaira Mateo (PRPS Member and PUCPR faculty). At each station, undergraduate and graduate (MS) students from PUCPR and graduate students (PhD) from PHSU conducted the activities and helped to explain to the participants what was happening in their brains during their experiences.
The brain histology activity allowed students to view neurons and the hippocampus under the microscope in histology sections. During the optical illusions activity the students were able to experience in how many ways the brain can interpret the same image, evidencing the power of our minds. Then, the students had the opportunity to see how the hippocampus works by illustration of special cues. In the marine sciences laboratory students learned how neuroscience can be studied in marine animals and also, how toxins of marine animals can affect our nervous system. At the brain anatomy station, students put on exam gloves to touch and hold real human brains. In each station, the students’ excitement was noticeable.

We would like to acknowledge the volunteers and staff who helped make the activity success, as well as the support of the American Physiological Society, Pontifical Catholic University of Puerto Rico and Ponce Health Sciences University.