CaRES Spotlight on Stephanie M. Robert

CaRES played an important role in the professional development of Stephanie M. Robert. In summer 2010 after completing her first year of medical school at the University of Alabama School of Medicine, Stephanie undertook a CaRES internship with Dr. Harald Sontheimer (then a UAB Professor of Neurobiology, now Professor of Neurobiology and Executive Director of Virginia Tech’s School of Neurosciences) looking at the role of System xC− (SXC, a cystine / glutamate transporter) in the radiation-resistance of brain tumors. They discovered that gliomas with higher levels of SXC exhibit greater resistance to radiation therapy, and published their findings in *Neurochemistry International*.

Stephanie’s CaRES experience awakened her passion for research, prompting her to enroll in a one-year master’s program through UAB’s Center for Clinical and Translational Sciences (CCTS), where she continued the research she had begun as a CaRES student. Then, in order to further her career and develop the skills needed to become a successful physician scientist, Stephanie joined UAB’s Medical Scientist Training Program (joint MD / PhD program) where she
earned a PhD in Neurobiology in June 2015. During her PhD training Stephanie collaborated on a pilot clinical trial examining the effect of pharmacological inhibition of SXC on peritumoral glutamate levels in glioma patients, using Magnetic Resonance Spectroscopy. She presented her findings at several national meetings, including the annual meetings of the Society for Neuroscience, and the American Physician Scientist Association. In 2013 Stephanie Robert won the John R. Durant Award for Excellence in Cancer Research among graduate students, at the UAB Comprehensive Cancer Center Annual Research Retreat.

Since her CaRES internship in 2010, Stephanie’s research focus has expanded to include etiologic investigations of tumor-associated seizures, a common consequence of brain tumors, affecting over half of glioma patients. Her research has been supported by the American Brain Tumor Association (ABTA), a Medical Student Fellowship, the CCTS TL1 Training Grant, the Brain Tumor T32 Training Grant, and most recently by a Carmichael Scholarship. She is investigating the role of SXC-mediated glutamate release in creating peritumoral excitability and epileptic activity. Her findings suggest that gliomas expressing higher levels of this transporter cause tumor-associated seizures. Two of Stephanie’s publications are as follows:


Left, Stephanie Robert receives her white coat at UAB’s White Coat Ceremony from Dr. Robert Rich, then Dean of the School of Medicine. Right, Stephanie polishes her writing skills at the WriteNow writing workshop at UAB’s Lister Hill Library.

Stephanie Robert is now completing her clinical rotations and will earn the MD degree in May 2017, after which she will begin her residency training. She plans to pursue a career as a physician scientist in an oncology-related specialty. CaRES is proud to have supported Stephanie in the early years of her career development. If you have any questions for her regarding her experiences in the CaRES program, please contact her at srobe25@uab.edu.

Thank you!