Dr. Chandley Co-Authors Book Chapter on Norepinephrine, Depression, and Suicide

Dr. Michelle Chandley, Department of Health Sciences, College of Public Health and Dr. Greg Ordway, Department of Biomedical Sciences, Quillen College of Medicine have co-authored a chapter “The noradrenergic system in depression and suicide,” in SH Koslow, P Ruiz, & CB Nemeroff (Eds.), Concise guide to Understanding Suicide: Epidemiology, Pathophysiology, and Prevention, published in 2014 by Cambridge University Press. 


The chapter was created to succinctly summarize the information currently known about the role of the neurotransmitter, norepinephrine, in the pathology and treatment of depressive disorders that lead to suicide. Unfortunately, suicide is the tragic outcome of a complex interplay of factors that include both environmental and genetic influences. A common thread between the two is abnormalities that are found in the norepinephrine signaling pathway in those who commit suicide. The information found in the chapter discusses norepinephrine pathology in people who have died by suicide and how current drug treatments for suicide ideation or depression alter norepinephrine signaling that result in behavioral improvements. Also, the chapter explores the future direction for norepinephrine research in depression and suicide including a better understanding of noradrenergic interactions with other cell types such as excitatory neurons and glia.

Dr. Chandley received her doctoral degree in Biomedical Sciences, and completed postdoctoral training, at the James H. Quillen College of Medicine where she worked in Dr. Ordway’s laboratory. In addition to studying major depressive disorders, her research focuses on neuron and glia pathology of autism spectrum disorders.