College of Science Neuroscience Faculty Candidate

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"Individual differences in leukocyte derived Interleukin –6 predict susceptibility to stress"



As a society we have a tendency to think of mood disorders such as depression and anxiety as "mental illness" and look for treatments that alter brain chemistry. Stress is a contributing factor to the onset of these mood disorders. Animal models indicate that individual differences in stress susceptibility are induced through activation or suppression of peripheral processes such as the immune system, gonadal hormones and genetic sex, yet these are generally not considered when

developing new treatments for mood disorders. This talk will examine empirical evidence from animal models and human subjects with major depressive disorder that indicate a functional role for the peripheral immune system in vulnerability to stress. Additional research will be presented examining how sex contributes to stress sensitivity or resilience. Connecting peripheral processes with sex specific alterations in the brain provides a potential new template for developing assays to diagnose mood disorders in humans of both sexes and develop personalized treatments with greater efficacy and fewer off target effects.

Contact Anne Wailes for more information: awailes@vt.edu