Investigator: Erica Duncan

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Primary Research Interest: Psychiatry

Description of Research: The acoustic startle response (ASR) is a reflex seen across mammalian species in

response to a sudden acoustic stimulus. Because the neuroanatomy and

neuropharmacology of this reflex are well known and because there are ASR abnormalities in several psychiatric disorders, it is an excellent translational paradigm for investigating the pathophysiology of brain disorders. Clinical neuroscience research in our lab is using the ASR and its modulations as a probe of brain circuit function in subjects with schizophrenia, cocaine dependence, and posttraumatic stress disorder. We are also extending these studies into the areas of genetics and epigenetics. An additional area of our research involves the VISN7 Corporate Database as a repository of clinical data from our VA patients. We are using this resource in order to conduct retrospective studies of outcomes

and metabolic changes in patients treated with antipsychotic medications.

Relevance to VA: Work in the Duncan lab is centered on clinical research of psychiatric disorders that are very prominent in the VA clinical population: schizophrenia, cocaine dependence, and posttraumatic stress disorder. Treatments for all these disorders is far from ideal; hence many of our VA patients are unable to achieve clinical stability despite state-of-the-art treatments. Our work is focused on advancing our understanding of the neural and genetic underpinnings of these disorders. Our overarching goal is to discover novel targets for the development of improved treatment for our veterans suffering from these chronic disorders. so that their suffering can be reduced and they can lead more productive and satisfying lives.