

News Release

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FOR IMMEDIATE RELEASE

Tyler Nelson, PhD, Named One of ANF's 2023 Development Grant Recipients

Rochester, Minn. (Dec. 21, 2023)- The American Neuromuscular Foundation (ANF), is excited to announce that Tyler Nelson, PhD, has been selected as one of the 2023 Development Grant recipients for his research project, "Analysis of a Novel Primary Periodic Paralysis SCN4A Mutation With Pain as a Major Phenotype." Dr. Nelson is currently in postdoctoral training at the New York University Pain Research Center in New York City, New York.

With his expertise in neurobiology and personal experience as a patient, Dr. Nelson brings a unique perspective to this field of research. "Surprisingly, to the best of my knowledge, no preclinical trials have explored pain mechanisms specifically related to skeletal muscle channelopathies. This knowledge gap presents a compelling opportunity for me to provide a meaningful contribution to the field," he said.

Dr. Nelson plans to generate a mouse model with the same skeletal muscle channelopathy found in himself and his immediate family, which will serve as the basis for most of his research. He will also conduct electrophysiological recordings from cells transfected with normal and pathogenic sodium muscle channels, seeking to understand the functional defects associated with the mutation.

Once the pathophysiology is understood, Dr. Nelson will explore pharmacological therapeutic options for treating the mutant channel. "By unraveling the intricate interplay between skeletal muscle ion-channel genes, myalgia, and pain, my research holds the potential to catalyze a paradigm shift in the approach of healthcare professionals to these conditions," he said.

Following completion of the research, Dr. Nelson will present his findings at an AANEM Annual Meeting.

About American Neuromuscular Foundation (ANF)

Based in Rochester, Minnesota, ANF is a nonprofit organization dedicated to strengthening the global effort to cure neuromuscular disease. As part of its mission to promote the advancement of scientific research and education, the ANF offers annual development grants intended as seed money to help launch research into muscle and nerve disorders by promising new researchers. For more information about ANF and previous and current development grant initiatives, visit www.neuromuscularfoundation.org.

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