

Meta-Analysis: Prion Diseases

Daniela Calzada

Mentored by Dr. Denise Signorelli, PhD. College of Southern Nevada Biology Department

Prion diseases are caused by a mutation of PRNP polymorphic 129 codon. This misfolded protein takes an abnormal shape that will misfold normal versions of the same protein in all mammals. It affects different areas of the brain; however, no recent research has found why these variants do so. There are designated methods to diagnose each disease such as polysomnography, CSF RT-QuIC (Cerebral Spina Fluid Real-Time Quaking-Induced Conversion), MRI, and genetic testing. The intent of this poster is an overview of Prion Literature that will encourage further research programs to bloom and create viable treatment courses for prion diseases. All prion diseases end fatally, whether it is inherited, sporadic or transmitted. NASA cares about prion diseases regarding the astronauts who participate in space missions. Astronauts may suffer long lasting damage after returning home with neurodegenerative disease symptoms. By investing research funds towards the understanding and treatments for prions neurodegenerative diseases it could further the groundwork of completely diagnosing and treating many neurodegenerative diseases.