SCN2A-RELATED DISORDERS (SRD)

WHAT IS SCN2A?

SCN2A is a sodium ion channel gene located on chromosome 2. It encodes the alpha subunit of the voltage-gated sodium channels (Nav1.2) mainly located in the brain. These channels play an essential role in a cell's ability to generate and transmit electrical signals. A change in the gene can alter the function of the channel and affect the way nerve impulses are conducted.



ASSOCIATED MEDICAL CONDITIONS

Epilepsy, Autism Spectrum Disorder, Attention
Deficit Hyperactivity Disorder, Global
Developmental Delays, Intellectual Disability,
Movement & Speech Disorders, Gastrointestinal
& Urology Issues, Cortical Visional Impairment,
Sleep Issues, Dysautonomia, Dystonia, Feeding
Issues, Neuropathic Pain, Ataxia and Cerebral
Palsy

Patients with SCN2A are seen by a variety of specialists to address their specific medical challenges and benefit from a multidisciplinary team approach to deliver comprehensive care.

QUICK FACT SHEET



SCN2A is one of the most common causes of neurodevelopmental disease. Even in variants that are repeated within SCN2A, presentation may vary.

How does SCN2A Present?

The current published literature suggests two main presentations. A gain of function variant makes the channel more excitable, typically leading to infantile-onset seizures. While a loss of function variant reduces the excitability or destroys channel function altogether, typically leading to autism spectrum disorder and/or intellectual disability.

infantile epileptic encephalopathy self-limited neonatalinfantile seizures (SeLIE) autism spectrum disorder / intellectual disability

characterized by infantile-onset seizures, followed by neurodevelopmental delay characterized by infantile-onset seizures, that resolve by age 2 characterized by global developmental delay, particularly social & language milestones; with or without seizures

increased
infantile epileptic
encephalopathy
(IEE)

self-limited neonatal-infantile seizures (SeLIE) autism spectrum disorder (ASD) and/or intellectual disability (ID)

reduced



normal