Dyslexia and Dyscalculia: Profiles, Developmental Trajectories, and Insights from Genetic Syndromes

Message from the Guest Editors

Dear Colleagues,

A large body of research indicates that the genesis of dyslexia and dyscalculia depends on reciprocal influences between multiple factors at the neural, cognitive, behavioral levels, and environmental factors. Depending on the developmental phase, these influences result in very wide variability in clinical manifestations, including frequent co-occurrence and developmental trajectories. A particularly challenging source of variability is represented by genetic syndromes (phenylketonuria, Klinefelter syndrome, Turner syndrome, etc.). Even in cases of adequate or nearly adequate cognitive functioning, one observes children with disorders in learning to read and/or calculate whose clinical presentation and developmental paths highlight diversified multifactorial dynamics, casting a beacon of light on the complex nature of the genesis of these disorders.

The objective of the Special Issue is to explore the sources of variability in the genesis and transformability of dyslexic and dyscalculic disorders with a particular attention to genetic syndromes. The derived knowledge may be particularly useful in implementing diversified and targeted stage-by-stage interventions.