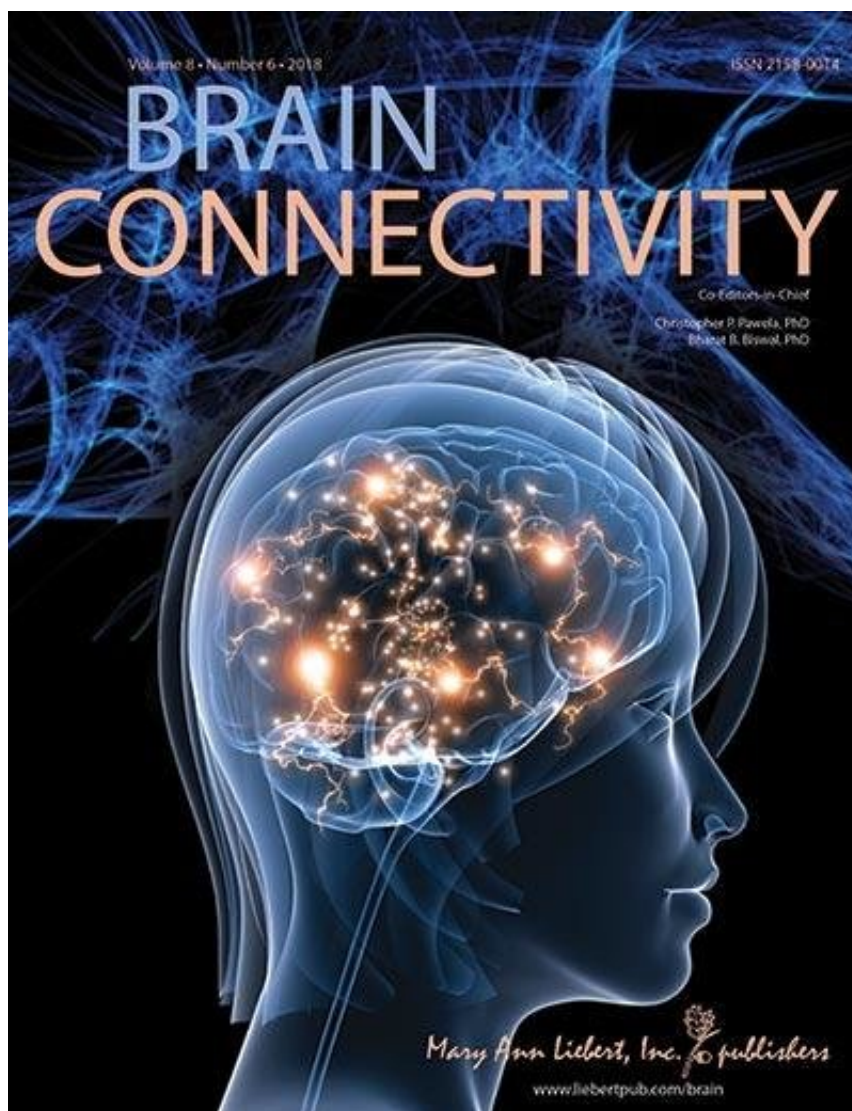


# Researchers find disrupted functional connectivity in cerebellum of adults with HF-ASD

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Credit: Mary Ann Liebert, Inc., publishers

A new study using an unbiased, whole-brain data-driven approach to assess the resting-state functional connectome in young adults with high-functioning autism spectrum disorder (HF-ASD) found two clusters of abnormal connectivity in the cerebellum. This finding, which supports a crucial role for the cerebellum in ASD and highlights the cerebellum as a potential therapeutic and diagnostic target, is reported in an article in *Brain Connectivity*.

Sheeba Arnold Anteraper, Ph.D., Massachusetts Institute of Technology, Cambridge and Massachusetts General Hospital, Boston, together with a team of researchers from Mass General Hospital, Universitat Autònoma de Barcelona, Spain, Weston High School, Weston, MA, and Harvard Medical School, Boston coauthored the article entitled "Disrupted Cerebrocerebellar Intrinsic Functional Connectivity in Young Adults with High-Functioning Autism Spectrum Disorder: A Data-Driven, Whole-Brain, High-Temporal Resolution Functional Magnetic Resonance Imaging Study."

The researchers described the use of connectome-wide multivariate pattern analysis (MVPA) using functional MRI (fMRI) data acquisition and analysis techniques to investigate resting-state functional-connectivity (RsFc) differences between healthy controls and adults with HF-ASD.

"Autism is characterized by poor social interactions and motor skill dysfunction. Improving motor skills in autistic children has been shown to help autistic individuals develop stronger social skills," states Christopher Pawela, Ph.D., Co-Editor-in-Chief, *Brain Connectivity*. "The cerebellum is a brain region proven to be involved in body movement and has been proposed as the brain origin of motor skill dysfunction in autism. Dr. Arnold Anteraper and her colleagues have

added to the existing literature implicating the cerebellum in autism-associated motor skill deficits and further identify sub-regions of the [cerebellum](#) as potential therapeutic targets."

**More information:** Sheeba Arnold Anteraper et al, Disrupted Cerebrocerebellar Intrinsic Functional Connectivity in Young Adults with High-Functioning Autism Spectrum Disorder: A Data-Driven, Whole-Brain, High-Temporal Resolution Functional Magnetic Resonance Imaging Study, *Brain Connectivity* (2018). [DOI: 10.1089/brain.2018.0581](#)

Provided by Mary Ann Liebert, Inc

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