As a disorder of brain development, autism spectrum disorder (ASD) affects the brain’s growth and function. Yet, the cause and timing of these effects are still unknown. Understanding these mechanisms is critical because it will lead to more accurate diagnosis and intervention, improving the long-term outcomes for people with ASD.

Neuroscientist Inna Fishman conducts imaging studies to identify brain patterns associated with symptoms of autism. Using cutting-edge techniques from anatomical, functional and diffusion MRI, she examines changes in brain organization during the critical developmental window, between the age of first ASD symptoms (18-24 months) and 4-5 years of age when ASD symptoms are at their peak. Dr. Fishman and her team scan toddlers at night, when they are naturally asleep, without sedation or medications.

This research promises to identify early brain markers of risk that may help us develop effective treatments for this life-long disorder.

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