**PROJECT RESUME**

**TITLE**: Mapping RNA regulatory mechanisms underlying autism spectrum disorder

Autism spectrum disorder (ASD) is a neurodevelopmental condition that lacks an effective treatment. Given its high genetic heterogeneity, it is crucial to uncover common underlying mechanisms to pave the way for treatments that can improve the quality of life of affected individuals. A potential common mechanism is the misregulation of brain-specific microexons that are frequently skipped in individuals with ASD. The splicing factor SRRM4 is a key regulator of neuronal microexons and has also been linked to ASD as its expression is reduced in individuals with the disorder. Preliminary evidence suggests the expression of *Srrm4* may also be altered in mouse models of haploinsufficiency of ASD-associated genes. We will use fluorescent in situ hybridisation (FISH) to determine whether *Srrm4* expression is altered in specific brain regions in those mouse models. This will help elucidate how Srrm4 may mediate downstream effects and link to ASD phenotypes.

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