Title:	Magnetic resonance imaging for in vivo brain analysis of zbtb20+/- mice as an animal model of syndromal autism
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Abstract:	Zbtb20 gene is a transcription factor that plays a significant role in various morpholog- ical processes, ranging from the orchestration of the neocortical layerings in the brain to postnatal gene suppression in the liver. In recent years, the mutation of this gene has been detected in a number of patients diagnosed with Primrose syndrome with intellectual defi- ciencies and autistic disorders. On the other hand, recombinant human erythropoietin (rhEPO) has been widely acclaimed for its neuroprotective effects on the central nervous system. It has also shown a beneficial impact on treating autism spectrum disorders in improving memory and learning in sub- jects. In this project, the morphometric changes observed in the brains of Zbtb20 +/ mice were studied using Magnetic Resonance Imaging of live animals. Furthermore, a gender-based analysis was carried out to see if the heterozygous mutation and/or the rhEPO treatment had any gender-based effect. The report validates our belief of Zbtb20 +/ as a potential gene for syndromal autism and reinforces rhEPO as a neuroprotective agent, especially for the treatment of ASD and related disorders.
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