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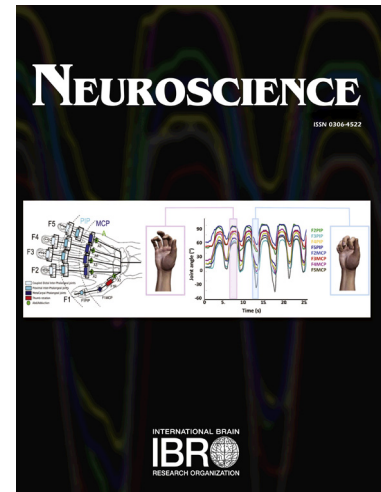
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Adversity in early adolescence promotes an enduring anxious phenotype and increases serotonergic innervation of the infralimbic medial prefrontal cortex

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### Abstract

Stress during early development produces lasting effects on psychopathological outcomes. We analyzed the impact of prior intermittent, physical stress (IPS) during early adolescence (PD 22-33) on anxiety-like behaviour of female rats in adulthood. After behavioural testing, we used immunohistochemistry for the 5-HT transporter (SERT) to evaluate 5-HT innervation profiles in the medial prefrontal cortex (mPFC) and ventral hippocampus (VH). Administration of IPS (i.e., water immersion, elevated platform, foot shock) in early adolescence increased rats' anxiety-like behaviour in the elevated plus-maze but had no effects in the shock-probe burying test. In the social interaction test, IPS decreased social interaction, and this effect was driven by selective decreases in the frequency of playfighting with no evident changes in contact and investigative behaviours. Selective stress-induced increases in the density of SERT-ir positive fibres were found in the infralimbic (IL) subregion of the mPFC, but not in the cingulate or prelimbic (PL) subregions. IPS in early adolescence did not affect 5-HT innervation profiles in any sub-fields of the VH. Our findings

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