

Baimai ointment

Cerebral palsy (CP) is a non-progressive **motor-impairment disorder** related to **brain injury** early in development. To gain new insights into the mechanisms of CP and the therapeutic efficacy of **Baimai ointment**, Wang et al. from **Beijing** used a high-throughput quantitative proteomic approach to evaluate proteomic changes in the **hippocampus** and **motor cortex** in a **rat model** of CP induced by **lipopolysaccharide** (LPS) combined with **hypoxia/ischemia** (H/I). More than 2000 **proteins** were identified in each brain region with high **confidence**. Quantitative analysis demonstrated profound disturbances in the **proteomes** of the hippocampus and motor cortex after LPS + H/I, in addition to the disruption of the motor system. In contrast, the topical application of Baimai ointment not only alleviated the motor deficit in the CP model rats, but also restored the proteomes in the brain cortex. Furthermore, astrocytes in the hippocampus were strongly activated in the Baimai-treated CP rat brains, associated with an increase in neurotrophic factors. Proteomic analysis demonstrated that the CP model induced neuroinflammatory responses in the brain which were reversed by the topical application of Baimai ointment. This study highlights the unexpected roles of hippocampus and motor cortex neurons in CP progress and treatment, thus providing potentially novel therapeutic targets for CP ¹⁾ ²⁾.

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Wang T, Zhang Y, Chen W, Tao J, Xue Q, Ge W, Dou W, Ma C. **Proteomic** changes in the **hippocampus** and **motor cortex** in a **rat model** of **cerebral palsy**: Effects of **topical treatment**. Biomed Pharmacother. 2021 Jan;133:110844. doi: 10.1016/j.biopha.2020.110844. Epub 2020 Nov 11. Erratum in: Biomed Pharmacother. 2021 May 15;140:111695. PMID: 33186793.

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Wang T, Zhang Y, Chen W, Tao J, Xue Q, Ge W, Dou W, Ma C. Corrigendum to 'Proteomic changes in the hippocampus and motor cortex in a rat model of cerebral palsy: Effects of topical treatment' [Biomed. Pharmacother. 133 (2021) 110844]. Biomed Pharmacother. 2021 May 15;140:111695. doi: 10.1016/j.biopha.2021.111695. Epub ahead of print. Erratum for: Biomed Pharmacother. 2021 Jan;133:110844. PMID: 34004509.

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