



## Time dependent Remote Alteration after Injury to the Nervous System, (TRAINS)

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Injury to the brain or the spinal cord results in **long-term functional deficits** in affected patients which mainly affect **sensation** and **motor function**. Traditionally it was believed that these impairments are solely caused by the initial local brain damage. However, an increasing body of evidence now indicates that in addition to the acute local changes also **distant areas of the brain** connected to the primarily injured area are also **critically involved in this process**. The **aim of the current project** is therefore to **unravel the mechanisms** resulting in these remote changes and to **develop novel therapeutic strategies** aimed to prevent long-term functional deficits after CNS injury. This will occur by **establishing a consortium of internationally recognized experts** in the field of brain and spinal cord injury and using **newly developed in vivo and ex vivo CNS imaging technologies** together with state-of-the-art treatment and drug development approaches.