## **BRAIN IMAGING WORKING GROUPS SUPPORTED BY JPND**



**HSG** 

Harmonized Hippocampal Subfield Segmentation Working Group

Hippocampal subfield segmentation is a central tool for neurodegeneration research. Results obtained across different laboratories have illuminated our understanding of how changes to specific hippocampal subfields are associated with different types of neurodegeneration. However, there is considerable disagreement among these findings, which is likely due to differences in the segmentation protocols used across laboratories. To resolve this major barrier, HSG will develop a valid, reliable, and harmonized protocol for in vivo hippocampal subfield segmentation that can be adopted as the gold standard for neurodegenerative research.

This project will use high-resolution T2-weighted 3 tesla MRI scans, which are non-invasive and widely available. HSG will propose and test the reliability and validity of the proposed protocol based upon reference atlases, the advice of consulting neuroanatomists, and the expertise of in vivo MRI imaging HSG members. Delphi procedure will be used to solicit feedback and establish consensus among the wider HSG community, and a formal reliability analysis will be completed. Finally, the protocol will be shared through conference presentations and a published manuscript. The HSG anticipates that this protocol will lead to improved diagnostic criteria for neurodegenerative disorders and will provide useful and sensitive markers for the evaluation of intervention efficacy.

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## HSG

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