



Biomedical Image Computing and Informatics Seminar

“High resolution in vivo and ex vivo imaging of the medial temporal lobe in aging and dementia ”

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University of Pennsylvania

Smilow Rubenstein Auditorium & Commons

3400 Civic Center Blvd.

Thursday, April 25, 2019 at 1pm

****Pizza lunch at 12:45pm****

Abstract

The medial temporal lobe is an important region in aging and neurodegenerative diseases as it is a hotspot for neurodegenerative pathologies and plays an important role in memory and other cognitive functions. Advancements in MRI have enabled the measurement of granular measures of the medial temporal lobe, which are hypothesized to be more sensitive and specific biomarkers of AD and other neurodegenerative diseases. This talk will address the effects of aging, Alzheimer's disease and other pathologies on medial temporal lobe subregions using ultra-high in vivo and ex vivo imaging.

Bio

Laura Wisse obtained her master in Clinical Neuropsychology at Leiden University, the Netherlands, after which she worked shortly as a clinical neuropsychologist. In 2011 she started her PhD at University Medical Center Utrecht, the Netherlands, focusing on measuring subfields of the hippocampus, a brain region crucial for memory, using a new MRI scanner, which allows for improved visualization of the brain. She investigated the effects of aging, Alzheimer's disease and depression on this brain region. In 2014, she started as a postdoctoral fellow in the lab of drs. Yushkevich and Wolk at the University of Pennsylvania, where she obtained a Brightfocus postdoctoral fellowship. Her research continues to center around structural imaging of brain volume loss, particularly regions important in memory, aging, Alzheimer disease and related dementias. She is interested in understanding what drives volume loss in these regions in the context of aging and dementia and, on the other hand, how volume loss in these regions affect cognitive functioning. Moreover, she is also heavily involved in the development of new tools to better measure these brain regions.