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EDUCATION

2009 Master Biomedical Science – Neuroscience (with distinction), Faculty of
Pharmaceutical, Biomedical en Veterinary Sciences, UAntwerp

CURRENT POSITION(S)

2015 – PhD student, Reference Centre for Biological Markers of Dementia (BIODEM),
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PREVIOUS POSITIONS

2013 – 2014 Research Assistant, Reference Centre for Biological Markers of Dementia (BIODEM),
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KEYWORDS

Dementia – Alzheimer's disease – mild cognitive impairment – biomarkers – cerebrospinal fluid –
magnetic resonance imaging

SUMMARY BIOSKETCH

Ellis Niemantsverdriet graduated with a 'distinction' as a Master of Science in biomedical sciences in 2013. She then started as a research assistant at the Reference Center for Biological Markers of Dementia (BIODEM) at the Institute Born-Bunge of the University of Antwerp. In 2015, she continued her work at BIODEM with her doctoral research. Her research focuses on the optimizing of a biomarker-based diagnostic work-up for Alzheimer's disease. The clinical diagnostic value of determination of risk factors for AD remains a matter of debate, and needs to be optimized. The current project aims are to optimize (1) standardized CSF sampling by lumbar puncture (LP) which is an invasive technique that if performed correctly, has a low complication rate, a high diagnostic yield, and is usually more tolerable than patients expect; (2) standardization and harmonization of pre-analytical, analytical and post-analytical aspects of the CSF biomarkers A β ₁₋₄₂, T-tau and P-tau_{181P} (3) the clinical diagnostic use of APOE genotyping, of which the ϵ 4 allele is a risk factor for AD; and (4) structural magnetic resonance imaging of the brain for the clinical diagnostic work-up of AD. Moreover, a multicenter study will be set up in order to evaluate the diagnostic value of a fully automated MRI based hippocampal volumetry. In conclusion, this research project will contribute to the optimization, standardization and harmonization of existing imaging and biochemical biomarkers for diagnosing AD.