Automated morphometry of transgenic mouse brains in MR images

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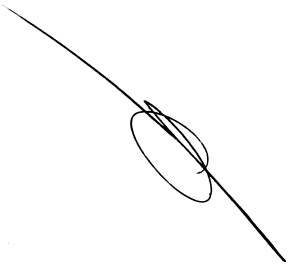

Curriculum vitae

Alize Elske Hiltje Scheenstra was born on 4 November 1981 in Gouda. In 1999, she received her secondary school degree from the Coornhert Gymnasium in Gouda. That same year she started her study in Computer Science at the University of Utrecht, where she received the M.Sc degree in Biomedical Image Sciences in 2005. Her graduation project was performed under the supervision of Prof. dr. R.C. Veltkamp and carried out at the Dutch Forensic Institute on landmark-based 3D face recognition.

From March 2005 until September 2009 she was employed at the *Laboratorium voor Klinische en Experimentele Beeldverwerking* (LKEB) in the Leiden University Medical Center (LUMC). She performed research to the quantitative morphometry on mouse brain MRI under the supervision of Prof. dr. ir. J.H.C. Reiber and dr. ir. J. Dijkstra, of which the results are presented in this thesis. For her work on the 3D Moore-Rayleigh test for quantitative local morphometry she received the IPMI best poster award. During that period she co-founded with Marijn van Straalen the Medical Imaging Symposium for PhD-students, which was the precursor of the Nederlands Forum for Biomedical Imaging (NFBI; http://www.nfbi.nl).

Currently she is employed as postdoc at the radiotherapy department of the Dutch cancer institute (NKI) under the supervision of Prof. dr. M. van Herk and dr. ir. J.-J. Sonke, where she is working on the regional quantification of radiation induced lung damage for stereotactic body radiation therapy.

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AD	Alzheimer's disease
DBM	Deformation-Based Morphometry
HT2	Hotelling's T^2 test
MRI	Magnetic Resonance Imaging
MR3	three-dimensional Moore-Rayleigh test
pHT2	Permutation test with the HT2 as test statistic
ROI	Region of Interest
SBM	Shape-Based Morphometry
SPM	Statistical Parametric Map
SOI	Structure of Interest
SPM	Statistical Parametric Map
TBM	Tensor-Based Morphometry
TE	Echo Time
TR	Repetition Time
WT	Wild type