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*INFORMATION PROCESSING AND STORAGE
BY THE HUMAN PYRAMIDAL NEURON*

Front cover

This cover aims to showcase the beauty and elegance of the neurons in our brain. Shown is a photograph of a visualised human cortical pyramidal neuron in a brain slice, with colours inverted and a few strokes of the magic wand in Photoshop. Some background staining in the upper layers of the slice creates the illusion of stormy clouds, from which the neuron blasts as a bolt of lightning to illuminate the brain and hopefully, shine some light on the hidden universe within.

The research presented in this thesis was carried out at the Department of Integrative Neurophysiology of the Center for Neurogenomics and Cognitive Research at the Vrije Universiteit Amsterdam, the Netherlands.

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VRIJE UNIVERSITEIT

**Information processing and storage
by the human pyramidal neuron**

ACADEMISCH PROEFSCHRIFT

ter verkrijging van de graad Doctor aan
de Vrije Universiteit Amsterdam,
op gezag van de rector magnificus
prof.dr. V. Subramaniam,
in het openbaar te verdedigen
ten overstaan van de promotiecommissie
van de Faculteit der Aard- en Levenswetenschappen
op donderdag 7 april 2016 om 11.45 uur
in de aula van de universiteit,
De Boelelaan 1105

door

Matthijs Bernard Verhoog

geboren te Amsterdam

promotor: prof. dr. H. D. Mansvelder

*“It is the brain, the little grey cells on which one must rely.
One must seek the truth within –not without.”*

-

Hercule Poirot

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