Imaging Alzheimer's disease pathology *in vivo*: towards an early diagnosis
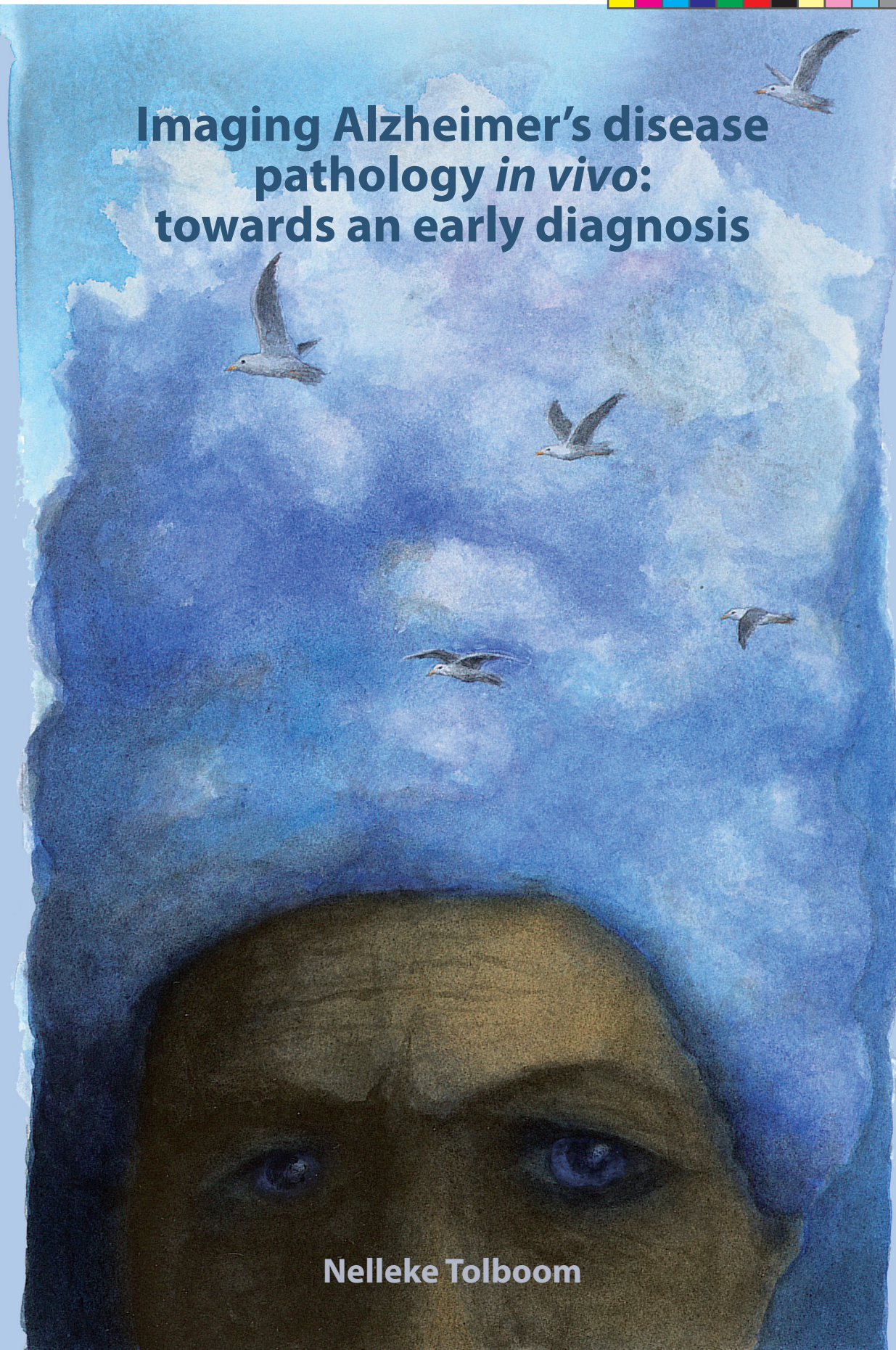
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Over the past two decades, positron emission tomography (PET) tracers have been developed for *in vivo* visualisation and quantification of Alzheimer's disease (AD) pathology. Previously, detection of AD pathology was only possible at post mortem examination of the brain or at brain biopsy. The possibility to image the amount and distribution of AD pathology during life has initiated a new research area. It shows promise to facilitate early and accurate diagnosis of AD, provide more insight in the time course and regional deposition of pathology during life and assist in the development of potential treatments. This thesis is dedicated to evaluate and compare the performance of two promising ligands for *in vivo* imaging of AD pathology, [^{11}C]PIB and [^{18}F]FDDNP.