

University of Groningen

## Efficacy of exercise for functional outcomes in older persons with dementia

Sanders, Lianne

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**Efficacy of exercise for functional outcomes in older persons  
with dementia**

The randomized controlled trial described in this thesis was conducted at health care centers of ZINN, Dignis, Meriant, TSN Thuiszorg and NNCZ.

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# **Efficacy of exercise for functional outcomes in older persons with dementia**

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ter verkrijging van de graad van doctor aan de  
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**Promotores**

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# Foreword



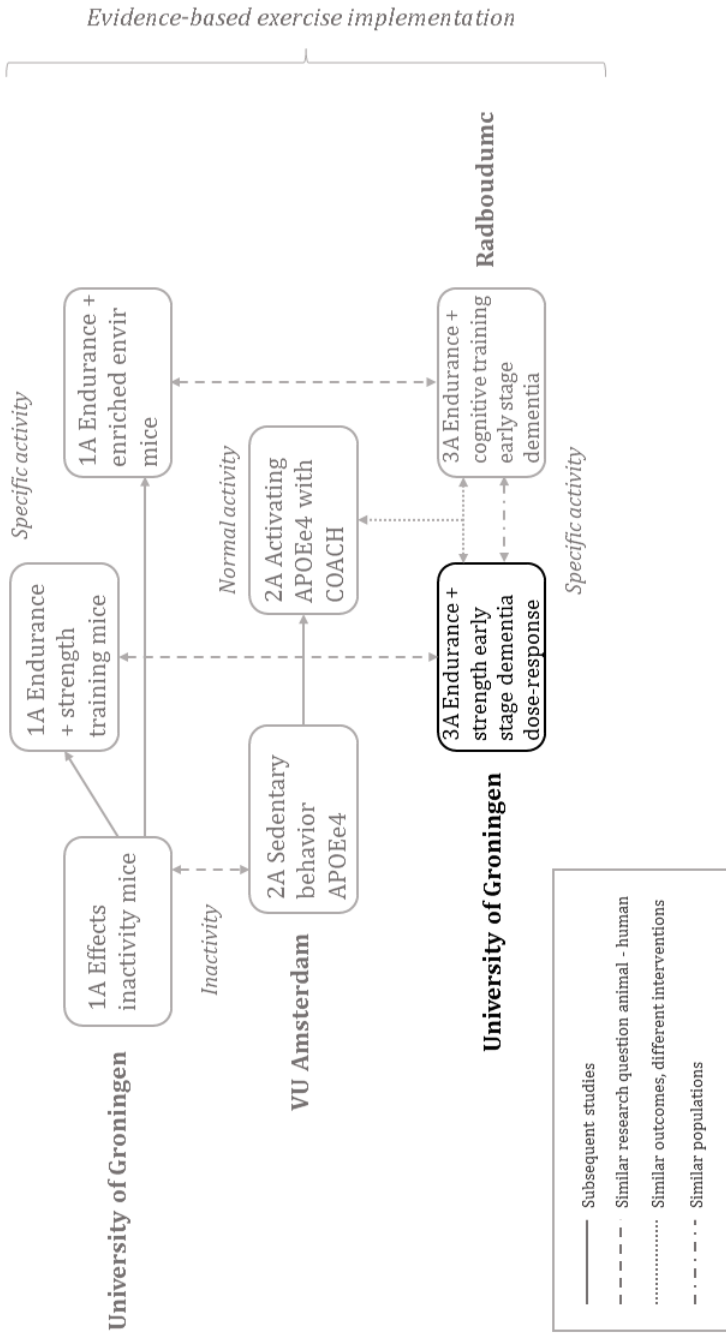




This research is performed within the Deltaplan Dementia as part of the program *Train the Sedentary Brain: Move Smart and Reduce the Risk of Dementia* (ZonMW: Memorabel, project number 733050303) executed by a consortium in which researchers from the University of Groningen, Vrije Universiteit Amsterdam and Radboudumc participate. The Deltaplan Dementia is a Dutch multidisciplinary collaborative initiative with the aim of improving dementia health care in the Netherlands and abroad. The focus of the Deltaplan Dementia lies on three core areas. These are 1) scientific research (the *Memorabel* program), 2) improving dementia care practice, and 3) social innovation to stimulate a dementia-friendly society. More information on the Deltaplan Dementia can be found on <https://deltaplاندementia.nl/nl>.

Within the Memorabel research program, the *Train the Sedentary Brain* (TTSB) program aims to investigate how specific exercise protocols can counter the negative effects of physical inactivity on the progression of dementia. An overview of the studies within TTSB is given in Figure 1. Together, these studies generate insight into the deleterious effects of physical inactivity on cognitive function, the interaction between physical inactivity and Apolipoprotein  $\epsilon 4$  (ApoE4, the most important biological risk factor for dementia), and the efficacy of physical activity protocols for physical and cognitive function. These insights are obtained using preclinical mouse models and clinical protocols. More information on the TTSB program including study reports can be obtained from <https://www.zonmw.nl/nl/over-zonmw/ehealth-en-ict-in-de-zorg/programmas/project-detail/memorabel/train-the-sedentary-brain-move-smart-to-reduce-the-risk-of-dementia/>.

**Train the Sedentary Brain: Move Smart to Reduce the Risk of Dementia**



**Figure 1.** Interrelationships between the studies.



