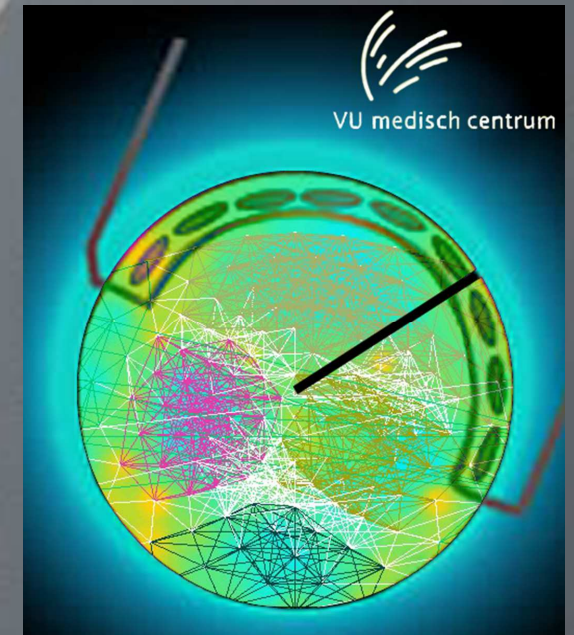


Symposium

## MEG at the VUmc

The past, the present and the future



VU University Medical Centre  
Monday 31<sup>st</sup> May, 2010



MEG at the VU University Medical Center has a long and rich history. MEG in Amsterdam started as an institute of the Royal Dutch Academy of Science (KNAW), and was made possible by the initiative of Henk Spekrijse and a collaboration between the KNAW, the VUmc, the AMC and the UMCU. Since these pioneering days, a lot has changed. The MEG has gradually been incorporated into the organization of the VUmc, and has become an integral part of the department of Clinical Neurophysiology since 2004.

Clinical work has focused on preoperative evaluation of epilepsy surgery patients, and by now more than half of all patients operated upon in the Netherlands undergo a pre-operative MEG as part of the workup.

Research focuses on the four main patient groups of the department of neurology and the Neuroscience Campus Amsterdam: Alzheimer's disease and dementia, Parkinson's disease, neuro-oncological patients and multiple sclerosis. In these various disorders, alterations in large-scale functional brain networks have been studied in relation to early diagnosis and cognitive dysfunction. More recently, the MEG center has pioneered the use of graph theory in such studies, which has been expanded to various other disorders such as survivors of childhood leukemia, diabetes, obesity and epilepsy. Studies in large cohorts of healthy subjects (AGGO) and twins have also been conducted, as well as fundamental studies of movement in healthy subjects in collaboration with the faculty of Human Movement Sciences at the VU.

The number of MEG sessions per year has increased to more than 500 in 2009. The focus on clinical studies in large patient cohorts, and the use of complex network analysis, have become trademarks of the VUmc approach to MEG.


The board of directors of the VUmc has supported the replacement of our old system by a new Elekta Neuromag system, which was installed on December 5<sup>th</sup> 2009. With a magnificent new MEG system and a completely renovated MEG suite, which provides a state of the art patient environment, we can now face the future of clinical MEG. This symposium is organized to celebrate the start of a new era of MEG, and to provide an overview of past and present MEG work at the VUmc.

## Program

- 09.30-09.50:** *Registration / Coffee*
- 09.50-10.00:** **Arjen Brussaard:** Opening
- 10.00-10.15:** **Kees Stam:** Introduction
- 10.15-11.00:** **Fabrice Bartolomei:** Use of MEG in presurgical evaluation of epilepsy
- 11.00-11.30:** *Coffee break*
- 11.30-12.00:** **Bob van Dijk:** The story of MEG in Amsterdam
- 12.00-12.30:** **Andreas Daffertshofer:** Neural synchrony in motor control - phases, clusters, and networks
- 12.30-13.00:** **Henk Berendse:** Resting state functional connectivity in Parkinson's disease: more is less?
- 13.00-14.00:** *Lunch and MEG tour*
- 14.00-14.20:** **Willem de Haan:** Functional brain networks and dementia
- 14.20-14.40:** **Linda Douw:** Neural networks and brain tumors
- 14.40-15.00:** **Eelco van Duinkerken:** Cerebral functioning in Type 1 Diabetes Mellitus: An MEG study
- 15.00-15.30:** **Arjan Hillebrand:** MEG beamformer applications
- 15.30-16.00:** *Tea break*
- 16.00-16.20:** **Hanneke Ronner:** MEG in clinical practice
- 16.20-16.50:** **Fernando Maestú:** The role of MEG in the early diagnosis of Alzheimer's disease
- 16.50-17.10:** **Kees Stam:** The future of MEG at the VUmc
- 17.10-** *Drinks*

## Speakers

- Prof. Dr. Arjen Brussaard**  
CEO of Neuroscience Campus Amsterdam & Director of Dept. of Neurosciences, VU University
- Prof. Dr. C.J. Stam**  
Clinical neurophysiologist, Dept. of Clinical Neurophysiology, VUmc
- Prof. Dr. F. Bartolomei**  
Clinical neurophysiologist, Dept. of Clinical Neurophysiology, Hôpital de la Timone, Marseille
- Dr. B. van Dijk**  
Physicist, Dept. of Physics and Medical Technology, VUmc
- Dr. A. Daffertshofer**  
Physicist, Fac. of Human Movement Sciences, VU University
- Dr. H.W. Berendse**  
Neurologist, Dept. of Neurology, VUmc
- Mr. W. De Haan**  
PhD student, Dept. of Neurology, VUmc
- Ms. L. Douw**  
PhD student, Dept. of Neurology, VUmc
- Mr. E. van Duinkerken**  
PhD student, Dept. of Medical Psychology and Endocrinology, VUmc
- Dr. A. Hillebrand**  
Physicist, Dept. of Clinical Neurophysiology, VUmc
- Mrs. H. Ronner**  
Clinical neurophysiologist, Dept. of Clinical Neurophysiology, VUmc
- Prof. Dr. Fernando Maestú**  
Neuropsychologist, Dept. of Basic Psychology, Complutense University of Madrid



**Venue: "Amstelzaal", Main building academic hospital VUmc, De Boelelaan 1117, Amsterdam**  
Information / registration: Mrs. Alexandra Linger, e-mail: [Alexandra.Linger@vumc.nl](mailto:Alexandra.Linger@vumc.nl), phone: +31 (0)20 4440727  
Admission is free, but pre-registration is required (before 17<sup>th</sup> May).