

About Neuroscience Center Amsterdam

Neuroscience has become a high-profile knowledge industry making a seminal contribution to our understanding of the human brain, the central nervous system and the fight against brain disease. Recent discoveries in this field – the humane genome and gene networks, interacting proteins and neuron-glia interactions, synaptic transmission embedded in neuronal networks – have paved the way for a better insight into higher brain functions, including consciousness, emotion and cognition. The elucidation of the human genome and the genetic analysis of a number of model organisms are helping to break down the traditional boundaries between the biomedical, biophysical, psychological and clinical neurosciences.

NCA's campuswide neuroscience network is unique in the Netherlands. Our mission is the comprehensive study, "from molecule to bedside", of brain disease mechanisms, including those involved in neuropsychiatric disorders, dementia and white matter diseases. We take a systematic approach to the brain, with the aim of delivering proofs-of-concept for radically new ways of diagnosing brain disease early and revealing its underlying mechanisms, thus providing new perspectives on therapy. In short, our ambition is find the causes of brain disease, to design their cures and to improve patient care and prevention.

Participating faculties

Medicine.
Psychology and Pedagogy.
Earth and Life Sciences.
Exact Sciences.

Director

Prof. dr. A.B. Brussaard, VU University Medical Center.

Research areas and activities

1. Advanced technology: brain imaging, photonics, drugs screening, bioinformatics, etc.
2. Brain disease: anxiety and depression, neurodegeneration and white matter diseases.
3. Genes and the brain: attention, addictive behaviour and systems biology of the synapse.
4. Research support and facilities: biobanking, genomics and proteomics, neuropathology, etc.



Organisation

TNeuroscience Campus Amsterdam was founded in 2008. The deans of the participating faculties make up its governing board, whilst the management team comprises six of their leading academics. The research staff are drawn from fields as varied as molecular science, clinical neuroscience and patient care.

Facts & Figures

- Research funding: approx. €20 million.
- Research staff: approx. 400
- Grants: about 50 per cent of funding comes from grants awarded in competition (NWO, TiPharma, Bsik CMSB, Parelsnoer, FP7, etc.).
- Publications: 15-25 PhD theses, 250 peer-reviewed articles, more than 30 book chapters and reviews.
- Awards include Toptalent grants, Veni/Vidi/Vici grants, a Spinoza grant (Prof. M. Van der Knaap) and an ERC Advanced Grant (Prof. D. Boomsma).
- Affiliated bodies: VUmc Alzheimer Centre, VUmc MS Centre, Child Neurology, NESDA cohort, Netherlands Twin Register (FPP), VU Laser Centre.

