

ABC Networking Day



# Connecting Treasures

28 June 2019

**abc** amsterdam  
brain &  
cognition

**ABC Networking Day 2019**  
**KIT Royal Tropical Institute**  
**Mauritskade 63, 1092 AD Amsterdam**



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28 June 2019

Today, you have a unique opportunity to experience the diversity of research that makes up the Amsterdam Centre for Brain and Cognition (ABC)!

We will start the day with presentations from figureheads from the different ABC themes. Then, after lunch, there is time for a session with exciting flash talks. We hope this day will allow you to find ABC researchers in other fields that share your interests, in order to build bridges and share ideas (perhaps to collaboratively apply for one of those ABC grants in the future?).

We wish you a very inspiring day!

Jorien Treur  
Marte Otten  
Suzanne Oosterwijk



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**Program**

10:00 - 10:10	Opening
10:10 - 10:55	Talks: ABC Themes
10:55 - 11:15	Break with coffee and tea
11:15 - 12:00	Talks: ABC Themes
12:00 - 13:00	Lunch
13:00 - 14:00	Flash Talks
14:30	AMBition Kick-Off Meeting



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### **10:10 - 10:55 Talks: ABC Themes**

Theme: Perception, Attention & Consciousness

10:10 - 10:25

Umberto Olcese      UvA FNWI      Swammerdam Institute for Life Sciences

*Perception, Attention and Consciousness: from mice to humans ... and computers.*

In this talk I will present a selection of ongoing research activities within ABC linked to the PAC (perception, attention and consciousness) thematic profiles. I will show how this theme is tackled by ABC researchers across faculties using a variety of methods: system-level studies in mice, experiments involving human subjects and the development of computer models. I will then present the first planned activities of the PAC thematic profiles.

Theme: Translational Science

10:25 - 10:40

Anouk Schranter      NiN      Spinoza Centre for Neuroimaging

*Translational research within the ABC.*

Translational science can be defined as research that attempts to translate basic scientific findings into potential treatments for disease. In a broader sense of the word, translational science can be associated with interdisciplinary research. In this presentation, I will discuss translational science within the context of ABC as it is now, as well as propose ideas for the future.



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Theme: Plasticity, Memory and Language

10:40 - 10:55

Carien Lansink

FNWI

Swammerdam Institute for Life Sciences

*Are visual and auditory cortex really sensory brain areas?*

In this talk, I will introduce the theme Plasticity, Memory and Language and I will show ABC research lines in this theme. In the second part, I will discuss how neuronal responsivity in the visual and auditory cortex is influenced by spatial parameters. These findings challenge classical ideas on the functions of early sensory cortical areas as unimodal feature detectors.

**11:15 - 12:00 Talks: ABC Themes**

Theme: Decision Making, Impulse Control and Rationality

11:15 - 11:30

Ruth Van Holst

Amsterdam UMC

Amsterdam Institute for Addiction Research

*When decision-making, impulse control and rationality (DIR) go awry: Addiction and compulsions.*

In this talk, I will give a birds' eye view of the work that we are doing at the department of psychiatry of the AmsterdamUMC location AMC. In our research group, we take a more clinical perspective and investigate how problems in decision-making, impulse control, and rationality play a role in psychiatric disorders. Eventually, we aim to use our scientific findings to improve therapies for addictions and compulsions.



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Theme: Individual Differences

11:30 - 11:45

Hilde Geurts          UvA FMG          Department of Brain & Cognition

*ABC(CC).*

In this talk a brief overview will be given of the type of autism studies conducted in my research group. I will present bits of brain, cognition and co-occurring conditions studies to show why an individual difference approach is needed when focusing on autism and aging.

Theme: (Neuro)computational modelling

11:45 - 12:00

Rajat Thomas          FNWI          Informatics Institute

*Deep Learning as, and for, neuro-modelling.*

Data is being collected in most, if not all, studies in neuroscience. Deep learning has emerged as the front-runner in analyzing data products from different modalities. I will highlight some of the successes of using deep learning in medical imaging analysis. Deep learning algorithms, although inspired by the brain, have in the most part evolved independent of neuroscientific principles. A new wave of methods though are looking again for alternatives in neuroscience. Are these algorithms feasible? Biologically plausible? We will touch upon few of these questions.



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**13:00 - 14:00 Flash Talks**

Christin Scholz      UvA FMG      Communication Science  
*Neural Mechanisms of Persuasion and Behavior Change.*

Irene van de Vijver      UvA FMG      Clinical psychology  
*Corticostriatal white-matter tracts supporting habitual behavior in the lab and in real life.*

Monja Hoven      AMC      AMC Psychiatry  
*The role of attention and loss aversion in decision-making under risk in gambling disorder: eye-tracking study.*

Joel van der Weele      UvA FEB      CREED  
*Anticipatory anxiety and wishful thinking.*

Björn Lindström      UvA FMG      Department of Social Psychology.  
*Transfer of social threat learning to decision-making.*

Lucas Molleman      UvA FMG      Psychology  
*Social learning in social networks.*

Martijn Wokke      UvA FMG      Brain and cognition  
*Anterior Prefrontal cortex mediates implicit inferences.*

Jelle Zuidema      UvA FNWI      ILLC  
*Deep Language Models, Interpretability & the Brain.*

Padraic Monaghan      UvA FGW      English  
*Relations among language acquisition, processing and change.*



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Lynn Sörensen      UvA FMG      Psychology  
*Leveraging Spiking Deep Neural Networks to understand Visual Attention in Natural Scenes.*

Lucia Talamini      UvA FMG      Psychology  
*Reading and manipulating brain activity in real-time.*

Olivier de Vries      UvA FMG      Clinical Psychology  
*The Dynamics of Emotional Episodic Memory.*

Anna Gerlicher      UvA FMG      Clinical Psychology  
*Dopamine-dependent prefrontal reactivations promote long-term benefit of fear extinction.*

Anne Marije Kaag      AMC      Developmental psychology  
*Sex differences in the neuropathology of substance use disorders.*