

NETWORK. BEHAVIOUR. RECOVERY – UNDERSTANDING CHANGES IN CONNECTIVITY AFTER STROKE

Friday, February 03rd, 2023

08.00 – 08.20 Registration

08.20 – 08.35 Opening remarks: Prof. Hein (Dean of the Faculty) & Prof. Weiller

SESSION 1 / DETERMINING STRUCTURAL CONNECTIVITY IN STROKE PATIENTS

08.35 – 09.00 **Maurizio Corbetta** — (Padua, Italy)

"Brain networks and criticality alterations in stroke"

09.00 – 09.25 **Michel Thiebaut de Schotten** — (Bordeaux, France)

"Disconnectome mapping - The BCBtoolkit"

09.25 – 09.50 **Aaron Boes** — (Iowa City, USA)

"Using lesion location and lesion-associated networks to predict post-stroke deficits – methodological challenges"

09.50 – 10.20 **Jürgen Henning** — (Freiburg, Germany) & **Chris Rorden** (Columbia, USA) — Discussion

10.20 – 10.50 COFFEE BREAK

10.50 – 11.00 **Max Wawryziak** — (Leipzig, Germany)

"Disconnectome mapping – validating the methodological approach"

11.00 – 11.10 **Orionas-Vasilis Saprikis** — (Freiburg, Germany)

"Tract mask-based lesion mapping"

11.10 – 11.20 **Marco Reisert** — (Freiburg, Germany)

"Streamline-based lesion-symptom mapping – a global tractography approach (NORA toolbox)"

11.20 – 11.50 **Chris Rorden** — (Columbia, USA)

"Measuring structural and functional connectivity longitudinally"

11.50 – 12.20 **Hans-Otto Karnath** — (Tübingen, Germany) & **Michel Thiebaut de Schotten** — (Bordeaux, France) Discussion

12.20 – 13.20 LUNCH

SESSION 2 / DETERMINING FUNCTIONAL CONNECTIVITY IN STROKE PATIENTS

13.20 – 13.45 **Michael Fox** — (Boston, USA)

"Lesion network mapping"

13.45 – 14.10 **Pierre LeVan** — (Calgary, Canada)

"How to quantify functional connectivity when it fluctuates so much?"

14.10 – 14.35 **Susan Duncan** — (Louisanne, USA)

"Interindividual changes in functional connectivity"

14.35 – 15.00 **Claus Hilgetag** — (Hamburg, Germany)

"Inferring causal functional contributions and interactions from stroke lesions"

15.00 – 15.20 **Lorenzo Pini** — (Padua, Italy)

"A principal component functional dysconnectivity approach in stroke"

15.20 – 15.50 **Steven Small & Ana Solodkin** — (Dallas, USA) — Discussion

15.50 – 16.20 COFFEE BREAK

SESSION 3 / METHODS AND PERSPECTIVE

16.20 – 16.35 **Andreas Horn** — (Boston, USA)

"Using causal sources of information to map the human connectome"

16.35 – 16.50 **Michael Tangermann** — (Nijmegen, Netherlands)

"Brain computer interfaces: a novel closed-loop possible approach for stroke recovery"

16.50 – 17.05 **Stephanie J. Forkel** — (Nijmegen, Netherlands)

"Language functions and the connected brain"

17.05 – 17.20 **Cornelius Weiller** — (Freiburg, Germany)

"Anatomically defined interaction hubs in the brain"

17.20 – 17.50 **Matt Lambon Ralph** — (Cambridge, United Kingdom)

"Some other key ingredients for future research: cognition, computational models and copious data"

17.50 – 18.20 **Cathy Price** — (London, UK) & **Ferdinand Binkofski** — (Aachen, Germany) — Discussion

Saturday, February 04th, 2023

SESSION 4 / STRUCTURAL AND FUNCTIONAL CONNECTIVITY AS A MEASURE OF POST STROKE DEFICITS

09.00 – 09.20 **Argye Hillis** — (Baltimore, USA)

"Disruptions of the human connectome resulting in hemispatial neglect after right hemisphere stroke"

09.20 – 09.40 **Janina Wilmskoetter** — (Charleston, USA)

"Measures of structural brain connectivity in post-stroke aphasia and dysphagia"

09.40 – 10.00 **Friedhelm Hummel** — (Geneve, Switzerland)

"Structural connectomes in post-stroke motor deficits"

10.00 – 10.10 **Bastian Cheng** — (Hamburg, Germany)

"Connectomics in cerebral small vessel disease - results from the Hamburg City Health Study"

10.10 – 10.20 **Anika Stockert** — (Leipzig, Germany)

"Lesion network mapping in thalamic aphasia"

10.20 – 10.30 **Andrea Dressing** — (Freiburg, Germany)

"Using streamline-based lesion-symptom mapping to determine multi-domain post stroke deficits"

10.30 – 11.00 **Dorothee Saur** — (Leipzig, Germany) & **Klaus Willmes** — (Aachen, Germany) — Discussion

11.00 – 11.15 COFFEE BREAK

SESSION 5 / CONNECTIVITY AND STROKE RECOVERY

11.15 – 11.35 **Leonardo Bonilha** — (Atlanta, USA)

"White matter networks and machine learning"

11.35 – 11.55 **Götz Thomalla** — (Hamburg, Germany)

"Structural connectivity - a mediator for treatment outcome in acute stroke"

11.55 – 12.10 **Ajay Halai** — (Cambridge, United Kingdom)

"The utility of structural and functional connectivity in predicting chronic stroke aphasia"

12.10 – 12.20 **Lukas Hensel** — (Cologne, Germany)

"Stroke connectivity and TMS"

12.20 – 12.30 **Jonas Hosp** — (Freiburg, Germany)

"Structural connectivity in ascending projection systems – the role of dopaminergic fibers for recovery"

12.30 – 12.40 **Mariachristina Musso** — (Freiburg, Germany)

"Brain computer interfaces as a possible novel approach to modify network connectivity after stroke"

12.40 – 13.10 **Maurizio Corbetta** — (Padua, Italy) & **Michel Rijntjes** — (Freiburg, Germany) — Discussion

13.10 – 13.20 Closing remarks

13.20 LUNCH

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NEUREX WORKSHOP

FEBRUARY
3RD- 4TH, 2023
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VENUE

HOTEL STADT FREIBURG
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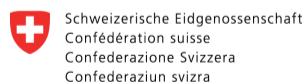
ORGANIZERS

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CLINICAL NEUROSCIENCE,
UNIVERSITY MEDICAL CENTER FREIBURG)



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