Dear colleagues,

we are delighted to invite you to the second Molecular Imaging of Neurodegeneration Cologne (MINC) symposium with the guiding theme:

A synopsis on translational imaging of neurodegeneration.

We are pleased to announce a colourful programme comprising numerous talks held by nationally and internationally renowned speakers from different fields of research, including preclinical and clinical imaging, translational neuroscience, and neuroimmunology. Moreover, this time early career scientists will have the opportunity to present their research in a data blitz format.

We are looking forward to welcoming all interested colleagues on October 18th - 19th 2018 in Cologne.

Sincerely,



Prof. Dr. Alexander Drzezga Director



Department of Nuclear Medicine University Hospital of Cologne

Prof. Dr. Thilo van Eimeren Multimodal Neuroimaging Group Department of Nuclear Medicine University Hospital of Cologne



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In cooperation with:



Under the auspices of:



eurodegenerative Erkrankunge

Sponsored by: Life Molecular Imaging (2.000€), Siemens Healthcare (2.000€), GE Healthcare (1.000€), Mallinckrodt (1.000€), Mediso (1.000€)





2nd MINC-Symposium

From Molecules to System Failure

A synopsis on translational imaging of neurodegeneration

Day 1 - Thursday, October 18th

8:30 Welcome Alexander Drzezga, Cologne

Session 1 – Cause & Effect of Tau Pathology Chairs: Drzezga, Cologne; Villemagne, Melbourne

8:35 Highlight Lecture: Tau-PET, imaging a causal pathology? Oskar Hansson, Lund, Sweden

- 9:15 Tau Cellular function and consequences of dysfunction Eckhard Mandelkow, Bonn
- 9:45 Tau-PET in primary tauopathies James Rowe, Cambridge, UK
- 10:15 Functional brain architecture is associated with tau spreading Nicolai Franzmeier. Munich
- 10:30 Coffee break

Session 2 – Inflammation, Friend or Foe? Chairs: Barthel, Leipzig; Bischof, Cologne

- 11:00 The role of neuroinflammation in ageing and neurodegeneration Delphine Boche, Southampton, UK
- **11:30 Imaging neuroinflammation in AD** Elena Rodriguez-Vieitez, Stockholm, Sweden
- 12:00 Imaging neuroinflammation in PD Alexander Gerhard, Manchester, UK
- 12:30 Characterising in vivo tau-related white matter changes in AD Elijah Mak, Cambridge, UK

12:45 Lunch

Session 3 – Transmitter Imaging & Modelling Chairs: Cross, Salt Lake City; Sabri, Leipzig

14:00 Quantitative PET imaging and why it is so important

Adriaan Lammertsma, Amsterdam, NL

14:30 Serotonergic changes in primate models of PD Bénédicte Ballanger, Lyon, France 15:00 Central and peripheral neurotransmitter changes in PD Per Borghammer, Aarhus, Denmark
 15:30 MRI-based predictors of cortical cholinergic dysfunction in early AD Nils Richter, Cologne
 15:45 Coffee break

Session 4 - α-Synuclein in Parkinson's Disease Chairs: Höglinger, Munich; Strafella, Toronto

16:05 Highlight Lecture:

 Biomarkers in prodromal PD

 Brit Mollenhauer, Göttingen

 16:45
 α-synuclein: a troublesome traveller Donato di Monte, Bonn

 17:15
 α-synuclein tracer development: Where are we?

Bernd Pichler, Tübingen

17:45 Differential diagnosis of Parkinsonism using multivariate metabolic brain network analysis Tomaž Rus, Ljubljana, Slovenia

Day 2 - Friday, October 19th

8:30 Welcome Thilo van Eimeren, Cologne

Session 5 - Bio-designed PET Tracers Chairs: Neumaier, Cologne; Herholz, Manchester

- 8:35 Cryo-EM structures of tau filaments from the human brain Michel Goedert, Cambridge, UK
- 9:05 Single-domain antibodies for diagnosis of AD Pierre Lafaye, Paris, France
- 9:35 Antibody-based PET imaging of amyloid in rodents Stina Syvänen, Uppsala, Sweden
- 10:05 Neuroimaging predictors of longitudinal cognitive decline in AD: the NIMROD study Maura Malpetti, Cambridge, UK

10:20 Poster Session with Coffee

Session 6 – Cause & Effect of Amyloid Pathology Chairs: Boecker, Bonn; Willbold, Jülich

11:00 Amyloid imaging in rodents

Axel Rominger, Bern, Switzerland

- **11:30** Amyloid in persons at risk of AD Frank Jessen, Cologne
- 12:00 Distinct molecular properties underlie regional vulnerability to amyloid deposition and neurodegeneration in AD Michel Grothe, Rostock
- 12:15 Lunch

Session 7 – From Diagnosis to Therapy Chairs: Jessen, Cologne; Nordberg, Stockholm

- **13:30 New strategies to fight amyloid pathology** Dieter Willbold, Jülich
- 14:00 Fighting the spread of protein pathology. Are exosomes the key? Anja Schneider, Bonn
- 14:30 Targeting tau pathology Eva-Maria Mandelkow, Bonn
- 15:00 Predicting individual dopaminergic treatment response in PD with structural MRI Tommaso Ballarini, Leipzig
- 15:15 Coffee break

Session 8 – From Damage to Dysfunction Chairs: Klockgether, Bonn; van Eimeren, Cologne

15:35 Highlight Lecture:

 Multimodal MR imaging in rare

 neurodegenerative diseases

 Kathrin Reetz, Aachen

 16:15
 Functional compensation in rodent models

 of PD

Heike Endepols, Cologne

- 16:45 Influence of local tau pathology on hippocampus function Özgür Onur, Cologne
- 17:15 Left frontal connectivity attenuates the aversive effect of tau pathology on memory performance in non-demented elderly subjects Julia Neitzel, Munich
- 17:30 Concluding Remarks & Farewell