U. of Oslo | U. of Copenhagen | Chinese U. of Hong Kong | Norwegian U. of Science and Technology | K.G. Jebsen Centre for Alzheimer's Disease | Kavli Institute for Systems Neuroscience | NO-Age | NO-AD

The NO-Age and NO-AD Seminar Series 029

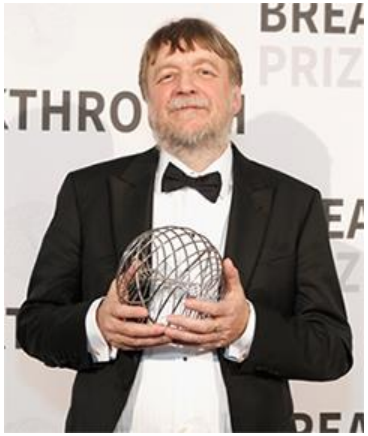
14:00-16:30 (CET), Monday, 01st Feb. 2021

14:00-15:15 (CET): 'Genetic dissection of neurodegenerative disease' (tentative) *by* **Prof John Hardy** (Chair of the Molecular Biology of Neurological Disease)
UCL Queen Square Institute of Neurology, UK

15:15-16:30 (CET): 'Pathophysiological propagation of tau: from cell-to-cell transfer to seeding of pathology; how do we move forward?' by **Dr. Simon Dujardin**, Harvard Medical School, USA

Register in advance for this webinar:
https://uio.zoom.us/webinar/register/WN_tVwfBW_LSAKQFxi41JSYig

Organizers:
Evandro F. Fang (UiO), Jon Storm-Mathisen (UiO), Menno P. Witter (NTNU)
Lene Juel Rasmussen (KU), W.Y. Chan (CUHK)
Queries: e.f.fang@medisin.uio.no
Previous recorded talks are available here: https://noad100.com/videos-previous-events/



Name: John Hardy
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Photo: Courtesy of Kimberley White, Getty Images 2015.
https://www.alzforum.org/news/community-news/and-oscar-science-goes

Speaker: John Hardy

Title: 'Genetic dissection of neurodegenerative disease' (tentative)

Abstract:
To be updated

Biography:
My research interests are in the genetic analysis of disease. Historically, we have worked on the genetic analysis of Alzheimer's disease and other dementias. More recently, we have worked on Parkinson's disease and other movement disorders and, most recently on motor neuron disease. Our early studies were on mendelian forms of disease and these studies continue, but an increasing focus has been on the genetic analysis of complex traits related to disease. Additionally, this latter analysis has made us increasingly interested in population genetics because the risk variants for human traits are likely to be different in different racial groups.

In all cases our intention is to develop an understanding of the underlying genetics of a disorder so we can work with those making cellular and animal models of the disease to help, both in the understanding of disease mechanisms and to help in the search for treatments. In this regard, we therefore have three types of collaborations: collaborations with clinicians who treat patients with disease, especially colleagues at the Institute of Neurology, but also elsewhere, collaborations with other geneticists to collaboratively analyse such patient material, and collaborations with cell biologists and transgenic mice people to enable them to build good models of disease.

Name: Simon Dujardin
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Photo: provided by the speaker

Speaker: Simon Dujardin

Title: Pathophysiological propagation of tau: from cell-to-cell transfer to seeding of pathology; how do we move forward?

Abstract:
Intracellular tau aggregation in the brain is a neuropathological hallmark of tauopathies such as Alzheimer's disease (AD). In AD, the progressive appearance of tau accumulation in the brain follows well-defined stages along anatomical connections known as the Braak stages. A decade ago, several experimental reports suggested that aggregated tau was able to contaminate healthy brain tissue and trigger the development of tau pathology. This led to the hypothesis that, similarly to prion proteins, misfolded tau species might actively spread through synapses and seed aggregation in recipient cells. Over the years, we and others have employed several in vitro and in vivo systems to demonstrate parts of this cascade and to discover mechanisms leading to propagation of tau. We will also discuss our recent findings and how does it relate to the clinical heterogeneity of AD, our current challenges, and what still needs to be learned.

Biography:
Simon Dujardin is an Instructor of Neurology at Massachusetts General Hospital and Harvard Medical School. He received a master's in biotechnology engineering from Sup'biotech Paris and a master's in biology and health from the Université de Lille (France). He then obtained his doctoral degree in neurobiology in 2015 from the Université de Lille working with Dr. Morvane Colin and Dr. Luc Buée to study the cell-to-cell transfer of tau proteins. For his postdoctoral research, Simon Dujardin joined the lab of Dr. Bradley Hyman at Massachusetts General Hospital/Harvard Medical School, where he conducted multiple research projects aimed at understanding the molecular basis of clinical heterogeneity of Alzheimer's Disease with a particular focus on tau protein. His postdoctoral works were recognized by multiple awards including an Alzheimer's association research fellowship and a junior faculty award from the ADPD.