

Hadding Award Ceremony, December 2, 2016



Laureate: Dr. rer. nat. Wolfgang Hoyer

Dr. Wolfgang Hoyer and his young investigator group “Engineered binding proteins to amyloidogenic peptides and proteins” study the aggregation of proteins into amyloid fibril deposits, pathological features of various diseases, including Alzheimer, Parkinson, and type 2 diabetes. The group is affiliated to the Institute of Physical Biology (Prof. Dieter Willbold).

- Dr. Hoyer studied chemistry from 1995 to 2000 at the University of Münster and York (UK) and wrote his diploma thesis at the University of Zürich
- In his doctorate from 2000 to 2004 at the Max Planck Institute of Biophysical Chemistry in Göttingen, Dr. Hoyer worked on the biophysical and biochemical characterization of the aggregation of the protein α synuclein. Aggregation of α Synuclein into amyloid fibrils plays a key role in the pathogenesis and progression of Parkinson’s disease. Dr. Hoyer completed his PhD “summa cum laude” and was awarded the Otto Hahn medal for young academics of the Max Planck Society
- From 2005 to 2008 he joined the group of Prof. Torleif Härd at the University of Gothenburg to investigate the inhibition of the aggregation of amyloid- β peptide, which is of critical importance for Alzheimer’s disease. For this work, Dr. Hoyer obtained a stipend from the Swedish Research Council.
- Since 2009 Dr. Hoyer is heading a young investigator group at the Institute of Physical Biology at the Heinrich Heine University Düsseldorf and at the Institute of Complex Systems: Structural Biochemistry (ICS-6) at Forschungszentrum Jülich.
- From 2009 to 2014 Dr. Hoyer was awarded a NRW young investigator grant amounting to 1.375 Mio. €. His group develops, characterizes and uses binding proteins to amyloidogenic protein targets with the aim to elucidate and modulate the mechanism of protein aggregation. Beta-wrapins are binding proteins developed in Dr. Hoyer’s group that inhibit aggregation and toxicity of disease-related proteins such as α -synuclein, amylin, and tau by interfering with the nucleation of aggregation and shifting the equilibrium to the soluble state. Furthermore, the binding proteins provide insight into the structural biology of amyloidogenic proteins.
- Up to now Dr. Hoyer’s work has been cited over 2000 times.