NEURAD

Neurodegeneration in Alzheimer's disease

Marie Curie Ph.D. Graduate School

1ST SYMPOSIUM
OF THE INTERNATIONAL
ALZHEIMER PH.D.
GRADUATE SCHOOL

European Commission

NEURODEGENERATION IN ALZHEIMER'S DISEASE - MECHANISMS, CONSEQUENCES AND THERAPY

SEPTEMBER
18TH-21ST, 2007

MAIN LECTURE HALL

University Medical Center
Göttingen
Department of Psychiatry
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37075 Göttingen

Organization:
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No registration required
– public access

Certified with
21 CME points

UNIVERSITÄTSMEDIZIN GÖTTINGEN : UMG

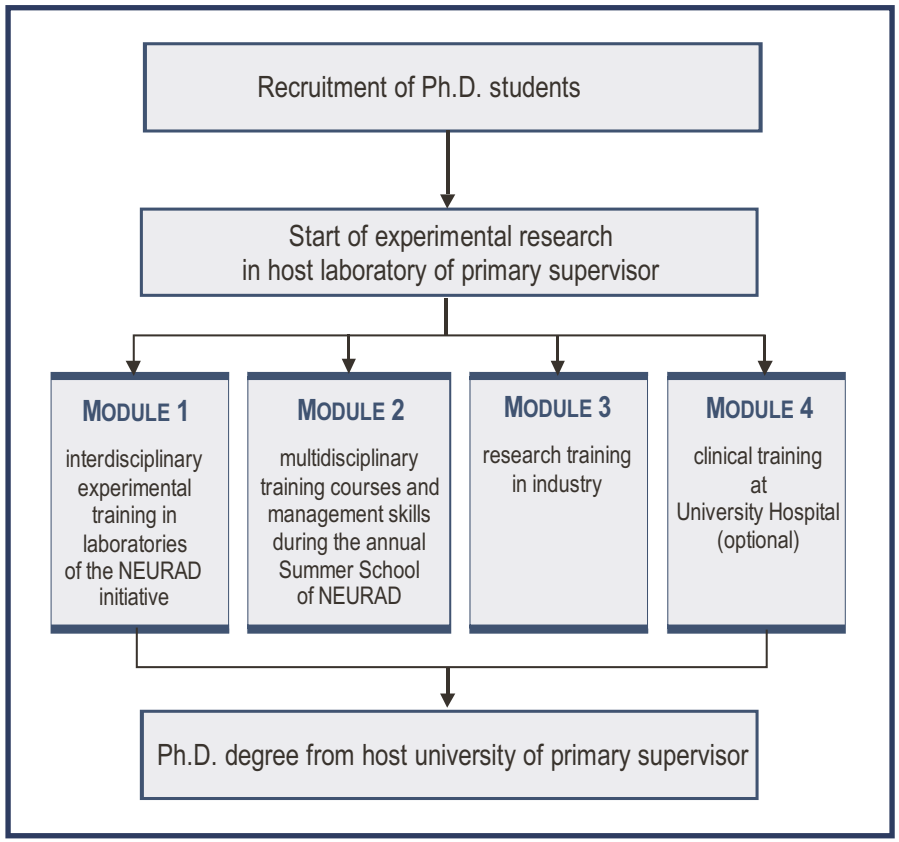
NEURAD model

The 1st symposium of the Alzheimer Ph.D. Graduate School entitled "Neurodegeneration in Alzheimer's disease – mechanisms, consequences and therapy" (NEURAD) will take place in Goettingen, Germany, September 18th to 21st, 2007. NEURAD (acronym for „neuron" and „AD") is a Marie Curie Early Stage Training Ph.D. programme funded by the European Commission in order to educate young scientists in the field of Alzheimer's disease (AD). In this regard NEURAD brings together distinguished professionals and young investigators in the fields of AD and other neurodegenerative diseases providing a platform for presentations on, and discussion of novel research findings.

The psychiatrist Alois Alzheimer was the first to describe a dementia syndrome of his patient Auguste D. whom he treated in Frankfurt/Main at the beginning of the last century. He recorded a rapidly progressing memory loss of the 52-year old woman. After her death, he examined her brain and found pathological changes, that became known as amyloid plaques and neurofibrillary tangles, which was later designated AD pathology. Owing to the demographical development of societies in industrialized countries, the number of elderly people and thereby the number of AD patients will increase dramatically within the next decades. Due to rapid progression of scientific knowledge, today we know part of the molecular pathways leading to these typical pathological changes. However, there is a surprising lack of knowledge transfer from basic science into successful therapeutic interventions.

The common aim of the interdisciplinary NEURAD consortium is to study early patho-mechanisms of AD and the consequences on the physiology of neuronal networks as well as on learning and memory in order to strengthen the transfer of knowledge from bench to bedside. The NEURAD consortium consists of AD scientists from 10 universities (including clinical departments), one pharmaceutical company, and two small enterprises.

During the annual Alzheimer symposium, NEURAD scientists and invited experts will present recent research findings on the neuropathological and biochemical basis of AD and other brain disorders, and discuss novel targets for innovative therapeutic strategies. In this regard, enzymes are potentially interesting because of their modulating role in generating toxic products. Furthermore, the role and interfering potential of neurogenesis, neurotrophic factors and neuroplasticity on neurodegeneration will be discussed.



TUESDAY 18.09.2007

CME 1

17:00 *Welcome reception*

17:45 **Opening remarks**
Peter Falkai
Thomas Bayer

18.00 **Key note lecture** (Chairs: Peter Falkai and Charlotte Delay)

- *Hans Förstl* „Alzheimer's disease – how it became what it is – and what it may be"

WEDNESDAY 19.09.2007

9:00 – 10:30 **Neuropathology of Alzheimer's disease and Parkinson disease** (Chairs: Charles Duyckaerts and Kunie Ando-Roussel)

- *Charles Duyckaerts* „Neuropathology of Alzheimer`s disease"
- *Jörg Schulz* „Parkinson disease: Models and mechanisms"
- *Mathias Bähr* „Neuroprotection in aggregation disorders"

10:30 – 11:00 *Coffee break*

11:00 – 12:30 **Clinical issues, diagnostic tools** (Chairs: Jacques Hugon and Holger Cynis)

- *Jacques Hugon* „Clinical aspects in AD"
- *Jean Luc Dumas* „Anatomical Imaging in AD"
- *Laura Vernoux* „CSF tests in AD"

12:30 – 14:00 *Lunch on your own*

14:00 – 16:00 **Copper and brain disease** (Chairs: Gerd Multhaup and Tobias Bethge)

- *Walter Schaffner* „Drosophila as a model to study metal effects in neurodegenerative diseases"
- *Dominik Huster* „Copper overload in Mice and Men"
- *Bart van de Sluis* „Hepatic copper metabolism in mammals"
- *Frank-Gerald Pajonk* „Clinical phase II Cu therapy in Alzheimer's disease"

16:00 – 16:30 *Coffee break*

16:30 – 17:30 **Gamma-secretase modulators as therapeutical targets** (Chairs: Sascha Weggen and Mark Rogers)

- *Sascha Weggen* „NSAIDs: small molecules for prevention of Alzheimer's disease or just precursors for future drug development?"
- *Bruno Imbimbo* „Potential of Gamma-Secretase Modulators in the Treatment of Alzheimer's Disease"

afterwards **Social program**

THURSDAY 20.09.2007

9:00 – 10:20 **Model systems I** (Chairs: Oliver Wirths and Anneke Kremer)

- *Fred van Leuven* „Bigenic transgenic mice: amyloid and tau pathology are linked by GSK-3β"
- *Lydia Giménez Llort* „Modeling behavioral and neuronal symptoms of Alzheimer's disease in mice: a role for intraneuronal amyloid"
- *Thomas Bayer* „Paradigm shift in Abeta toxicity"

10:20 – 10:50 *Coffee break*

10:50 – 11:50 **Model systems II** (Chairs: Joris Winderickx and Hélène Tran)

- *Katharina Schindowski* "Alzheimer's disease-like imbalance of neurotrophic factors in a tau transgenic model"
- *Joris Winderickx* "Development of humanized yeast models to study neurodegenerative disorders"

11:50 – 13:30 *Lunch on your own*

13:30 – 14:50 **Axonal transport and axonopathy** (Chairs: Oliver Wirths and Harald Klinger)

- *Robert Adalbert* „New approaches to study axon degeneration mechanisms in Alzheimer's disease"
- *Oliver Wirths* „Axonopathy in Alzheimer mouse models"
- *Wolfgang Brück* „Mechanisms of axonal degeneration"

14:50 – 15:20 *Coffee break*

15:20 – 16:50 **Presenilin function** (Chairs: Sascha Weggen and Marijke Lemmens)

- *Harald Steiner* „Alzheimer's disease γ-secretase: a complex story"
- *Frédéric Checler* „New function of presenilins in the control of Aβ degradation"

16:50 – 17:20 *Coffee break*

17:20 – 18:35 **Neuroimaging and anatomy** (Chairs: Fred van Leuven and Henning Breyhan)

- *Jochen Herms* „In vivo imaging in neurodegenerative diseases: Tracking down structural correlates of synaptic failure"
- *Christoph Schmitz* „Neuroanatomy of APP/PS1 transgenic mice"

9:00 – 10:15 **Neurogenesis, stress and plasticity**
(Chairs: Christoph Schmitz and Anindita Bose)

- *Paul Lucassen* „Cellular hippocampal plasticity in relation to dementia and stress"
- *Georg Kuhn* „Changes in neurogenesis in Alzheimer's disease models"

10:15 – 10:45 *Coffee break*

10:45 – 12:00 **pGlu-Abeta in pathogenesis and neurodegeneration: targets for Alzheimer therapy** (Chairs: Thomas Bayer and Alexis Bretteville)

- *Tamas Revesz* „Sporadic and familial cerebral amyloid angiopathies"
- *Hans-Ulrich Demuth* „Non-mainstream emerging therapeutic applications to combat sporadic AD pathology"

12:00 **End of symposium and Concluding remarks** (Thomas Bayer)

NEURAD meeting for students and supervisors
(seminar room of the Dept. of Psychiatry)

12:00 – 12:30 *Sandwiches and drinks at the seminar room*

12:30 – 17:30 **NEURAD Ph.D. session: Ph.D. students give progress report + discussion** (organised by Marie Cotel, Ditte Christensen and Andrea Marcello).
Competition for best Ph.D. presentations and awards.

15:00 – 15:15 *Coffee break*

18:00 – 18:30 **Annual meeting of NEURAD supervisors**

19:30 *Dinner for invited participants at the "Rathskeller"*

FACULTY

Robert Adalbert
Cambridge

Mathias Bähr
Göttingen

Thomas Bayer
Göttingen

Wolfgang Brück
Göttingen

Luc Bueé
Lille

Frédéric Checler
Valbonne

Hans-Ulrich Demuth
Halle

Ilse Dewachter
Leuven

Jean Luc Dumas
Paris

Charles Duyckaerts
Paris

Hans Förstl
Munich

Lydia Giménez Llort
Barcelona

Jochen Herms
München

Jacques Hugon
Paris

Dominik Huster
Leipzig

Bruno Imbimbo
Parma

Georg Kuhn
Göteborg

Paul Lucassen
Amsterdam

Gerd Multhaup
Berlin

Frank-Gerald Pajonk
Liebenburg

Tamas Revesz
London

Walter Schaffner
Zürich

Katharina Schindowski
Lille

Christoph Schmitz
Maastricht

Jörg Schulz
Göttingen

Bart van de Sluis
Utrecht

Harald Steiner
München

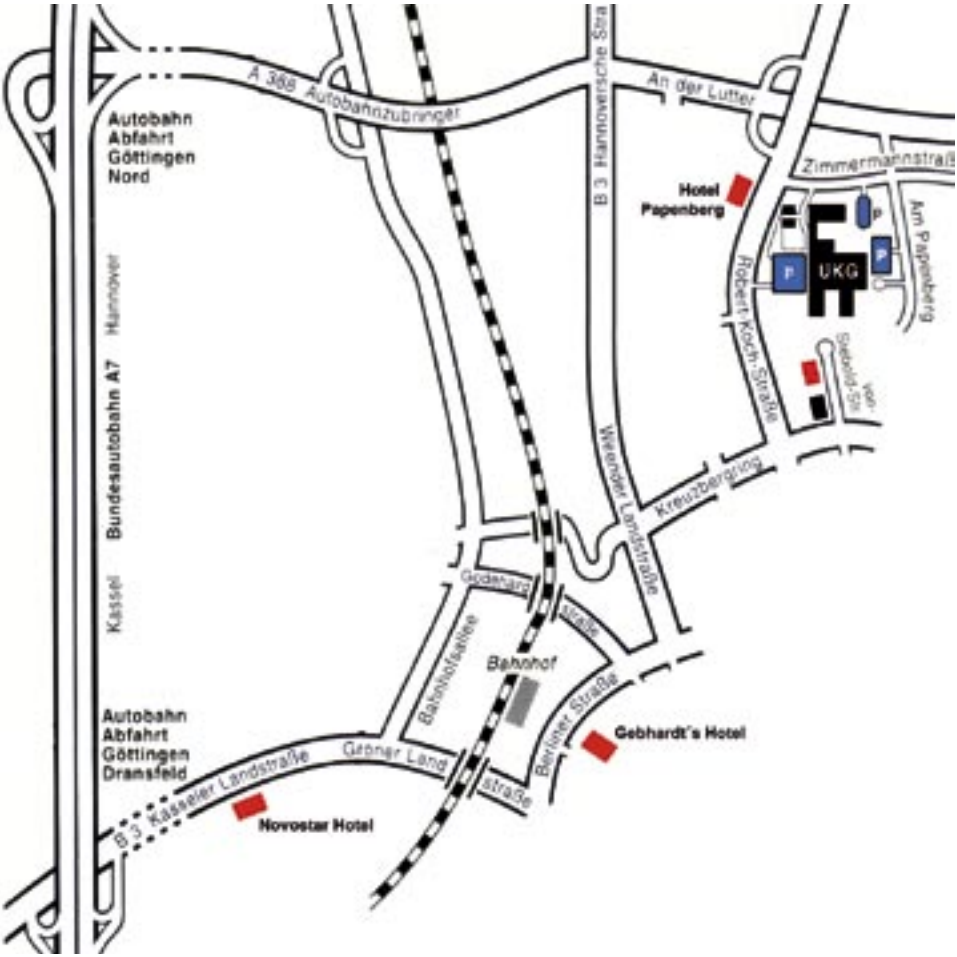
Fred van Leuven
Leuven

Laura Vernoux
Gent

Sascha Weggen
Düsseldorf

Joris Windericks
Leuven

Oliver Wirths
Göttingen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Novostar Hotel