Advances in Research on Neurodegenerative Disease with a Focus on Dementias

A growing number of people are confronted with neurodegenerative diseases such as Alzheimer’s disease and other dementias. Public awareness is rising, particularly in countries with high life expectancy, such as Israel and Germany. The hopes of patients and relatives lie on progress in medical research and the development of novel pharmaceuticals.

Even though the understanding of Alzheimer’s disease and other dementias has much improved in recent years, the underlying molecular principles are not yet fully understood. The mechanisms of protein misfolding and their accumulation – as cytological causes of the disease and its course – are of particular importance in this context. Moreover, further research is needed, for example in the fields of diagnostic biomarkers or the influence of genetic and environmental factors.

Against this background, renowned scientists from Israel and Germany meet to discuss the latest data on and the most recent developments in neurodegenerative diseases and dementias. The meeting will also address differential diagnosis and biomarkers, molecular biology and genetics as well as therapeutic strategies for dementias.

In addition, young scientists from Israel and Germany will present their research in two poster sessions.

Registration
For participation at the symposium, please register here until 28 April 2015: www.leopoldina.org/en/4ias

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German National Academy of Sciences Leopoldina
The Leopoldina brings together the expertise of some 1,500 distinguished scientists to bear on questions of social and political relevance, publishing unbiased and timely scientific opinions. The Leopoldina represents the German scientific community in international committees and pursues the advancement of science for the benefit of human kind as well as for a better future.

Israel Academy of Sciences and Humanities
Chartered by law in 1961, The Israel Academy of Sciences and Humanities (The Academy) acts as a national focal point for Israeli scholarship in both the natural sciences and the humanities. The Academy, consists of 112 Israel’s most distinguished scientists and scholars, monitor and promotes Israeli intellectual excellence, advise the government on scientific planning, publish monumental research scripts, and maintain active relations with National Academies and the international scientific and scholarly communities.

An event on the occasion of 50 years diplomatic relations Germany-Israel.

The Leopoldina and the Israel Academy of Sciences and Humanities kindly thank the Fritz Thyssen Foundation and the German Neuroscience Society for their generous financial support of the symposium.
Monday, 4 May 2015

9.00 – 9.30 a.m. | Registration

9.30 – 10.00 a.m.
Welcome Address
Prof. Jörg Hacker ML, Leopoldina President

Session 1
Moderation: Prof. Peter Riederer ML, University Hospital Würzburg
    Prof. Beka Solomon, Tel Aviv University

10.00 – 10.30 a.m.
Molecular neuropathology of frontotemporal dementias
Prof. Manuela Neumann, University of Tübingen

10.30 – 11.00 a.m.
Transition mechanisms from physiology to Alzheimer's Disease pathology
Prof. Inna Slutsky, Tel Aviv University

11.00 a.m. – 12.00 p.m. | Poster Session 1 and Coffee Break

12.00 – 12.30 p.m.
The role of microglia and associated inflammatory processes in neuropsychiatric and neurodegenerative diseases
Prof. Raz Yirmiya, Hebrew University

12.30 – 1.00 p.m.
Was Alois Alzheimer’s histological description helpful in understanding why so many old people get demented?
Dr. Ramit Ravona-Springer, Sheba Medical Center

1.00 – 2.00 p.m. | Lunch Break

Session 2
Moderation: Prof. Michael Frotscher ML, University Medical Center Hamburg-Eppendorf
    Prof. Oded Abramsky, Hadassah Medical Centre

2.00 – 2.30 p.m.
Alzheimer’s disease: an evolutionary perspective
Prof. Thomas Arendt, Leipzig University

2.30 – 3.00 p.m.
Risk factors for depression and dementia in geriatric populations: The VITA and VOGEL studies
Prof. Jurgen Deckert, University Hospital Würzburg

3.00 – 3.30 p.m.
Genetics of late onset Alzheimer’s disease beyond ApoE4: What are the clinical implications?
Prof. Wolfgang Maier ML, University Hospital Bonn & German Center for Neurodegenerative Diseases (DZNE)

3.30 – 4.00 p.m. | Coffee Break

Session 3
Moderation: Prof. Karl M. Einhäupl ML, Charité Berlin
    Prof. Amos Korczyn, Tel Aviv University

4.00 – 4.30 p.m.
What we talk about when we talk about disorientation in patients with dementia: Neuropsychological, behavioral and functional neuroimaging evidence
Dr. Shahar Arzy, Hadassah Medical Center, Hebrew University

4.30 – 5.00 p.m.
Ubiquitin signalling in health and disease
Dr. Meike Brömer, German Center for Neurodegenerative Diseases (DZNE)

Tuesday, 5 May 2015

10.00 – 11.00 a.m. | Poster Session 2 and Coffee Break

Session 4
Moderation: Prof. Yadin Dudai, Weizman Institute of Science
    Prof. Walter Müller, Goethe University Frankfurt am Main

8.30 – 9.00 a.m.
Advances in Alzheimer’s disease research – evolving concepts in biomarker, diagnostics and therapy development
Prof. Harald Hampel, Université Pierre et Marie Curie

9.00 – 9.30 a.m.
Membrane homeostasis of the prion protein as a key regulator in neurodegenerative diseases
Prof. Markus Glatzl, University Medical Center Hamburg-Eppendorf (UKE)

9.30 – 10.00 a.m.
Interplay between Amyloid-beta and Tau in degenerating neurons
Dr. Eva-Maria Mandelkow, German Center for Neurodegenerative Diseases (DZNE)

11.00 – 11.30 a.m.
The SPP/SPPL family – fascinating homologues of the gamma-secretase
PD Dr. Regina Fluhrer, LMU Munich

11.30 a.m. – 12.00 p.m.
MicroRNA-target interactions in neurodegenerative diseases
Prof. Hermona Soreq, Hebrew University

12.00 – 12.30 p.m.
Unexpected roles of the innate immune complement pathway in the developing brain
Prof. Orly Reiner, Weizmann Institute of Science

12.30 – 1.30 p.m. | Lunch Break

Session 5
Moderation: Prof. Markus Otto, Ulm University & (to be announced)

1.30 – 2.00 p.m.
The role of microglia in pathology
Prof. Helmut Kettenmann ML, Max-Delbrück-Center for Molecular Medicine

2.00 – 2.30 p.m.
Apolipoprotein E4 – targeted therapy of Alzheimer’s Disease
Prof. Daniel Michaelson, Tel-Aviv University

2.30 – 3.00 p.m.
Why multi target drugs for Alzheimer’s Disease?
Prof. Moussa Youdim ML, Technion

3.00 p.m. | End of Conference