University of Zurich
Division of Psychiatry Research and Psychogeriatric Medicine

7th Winter Brain Symposium 2011
Sils Maria, Switzerland

February 27 - March 3, 2011
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Dear Colleagues

We are pleased to welcome you to our 7th Winter Brain Symposium at Sils Maria, February 27 to March 3, 2011. The understanding of the biology of neurodegenerative diseases has led to novel concepts for diagnosis, therapy and prevention, as well as for neurorehabilitation. We will discuss recent results by combining progress reports from our laboratories and clinic with key note lectures by leading international researchers. The goal is to promote a multidisciplinary exchange of ideas that will continue to advance research and treatment of brain diseases.

The schedule will be complemented by continued individual scientific discussions on the Furtschellas and Corvatsch slopes, as well as by one-on-one meetings in the Waldhaus lobby.

Our visiting scientists will be staying at the famous Hotel Waldhaus – one of the most renowned hotels in the world and host to many high profile artists and scientists including Thomas Mann, Hermann Hesse, Richard Strauss, Otto Klemperer, Max Liebermann, Marc Chagall, Carl Jung and Albert Einstein.

Sincerely,

Roger M. Nitsch
Christoph Hock
Lawrence Rajendran
Visiting Professors
Amedeo Caflisch, PhD, Professor of Computational Structural Biology
André Fischer, PhD, Head of the Laboratory for Aging and Neurodegenerative Diseases
John Growdon, MD, Professor of Neurology
Simon Philipp Hörstrup, MD PhD, Professor of Experimental Surgery
Jan Lünemann, PhD, Assistant Professor of Neuroinflammation
Walter Nickel, PhD, Professor of Biochemistry
Manfred Windisch, PhD, CEO and President JSW Lifesciences GmbH

Division of Psychiatry Research
Roger M. Nitsch, MD, Professor of Molecular Psychiatry
Christoph Hock, MD, Professor of Biological Psychiatry
Lawrence Rajendran, PhD, Assistant Professor of Systems & Cell Biol. of Neurodegeneration

Jitin Bali, PhD student
Saoussen Ben Halima, PhD Student
Boas Felmy, PhD Student
Jenny Franbarg, PhD, Postdoc
Marco Frey, MD, PhD Student
Manuel Gersbacher, PhD Student
Anton Gietl, MD, Attending Physician
Sonja Grinschgl, PhD Student
Michael Hanenberg, PhD Student
Sarah Hoey, PhD, Postdoc
Andrea Kälin, PhD Student
Uwe Konietzko, PhD, Sr. Res. Scientist
Luka Kulic, MD, Postdoc
Cornelia Marty, PhD, Institute Manager
Jordan McAlfoose, PhD Student

Florian Riese, MD, Resident Physician
Michael Schmitz, PhD, Postdoc
Daniel Schuppli, Technician
Barbara Siegenthaler, Master Student
Claudia Späni, Master Student
Lisa Strobel, PhD Student
Anita Szodorai, PhD, Postdoc
Christian Tackenberg, PhD, Postdoc
Garima Thakur, PhD Student
Annette Trutzel, PhD Student
Tobias Welt, MD, Postdoc
Fabian Wirth, PhD Student
Henrike Wolf, MD, Attending Physician
Salome Zeller, Master Student
Sebastian Zurbriggen, Technician
Previous Visiting Professors

Adriano Aguzzi
Brian J. Bacskai
Burkhard Becher
Steffen Gay
Ezio Giacobini
Rudi Glockshuber
Norbert Goebels
John H. Growdon
Christian Haass
Fritjof Helmchen
Florian Holsboer
Eldad Melamed
Hanns Möhler
Dave Morgan
Klaus A. Nave
Manuela Neumann
Jean-Marc Orgogozo
Robert Rieger
Roland Riek
Markus Rudin
Michael Sendtner
Sangram S. Sisodia
Arno Villringer
Bengt Winblad
Michael Weller
Moussa Youdim
Contact for registration, information, organisation and questions
Cornelia Marty
mobile +41 79 207 58 33
University of Zürich
Division of Psychiatry Research and Psychogeriatric Medicine
August Forel-Strasse 1, 8008 Zurich, Switzerland, phone +41 44 634 88 65
fax +41 44 634 88 79, e-mail cornelia.marty@bli.uzh.ch

Situation
by train to St Moritz, then by postal coach to Sils Maria, if you stay at Hotel Waldhaus, a car will pick you up.

by car via Chur and the Julier pass or alternatively, from Italy through Milan and the Maloja pass. Please check the road conditions on www.tcs.ch. Snow tyres are mandatory in winter.

Language
the official language is English

Attire
smart casual
alpine winter clothing for outdoors

Taxi
Cattaneo St. Moritz, phone +41 (0)81 833 69 69

Bus
Public Bus at Sils Maria Post to all Engadin destinations
Waldhaus Shuttle Bus to Furtschellas Base Station

Parking
Sils public parking garage and Waldhaus
Accommodations of visiting professors and meeting place
Hotel Waldhaus: CH-7514 Sils Maria, phone +41 (0)81 838 51 00

Accommodations of participants
Hotel Chesa Margun: CH-7514 Sils Maria, phone +41 (0)81 826 50 50

Accommodations of participants
Chesa Sunasain: CH-7514 Sils Maria, phone +41 (0)81 826 50 31
Hotel Waldhaus Sils
SILS MARIA

Hotel Waldhaus Sils
CH-7514 Sils Maria
phone +41 (0)81 838 51 00
http://www.waldhaus-sils.ch/
Hotel Chesa Margun
SILS MARIA

Hotel Chesa Margun: CH-7514 Sils Maria, phone +41 (0)81 826 50 50
http://www.chesamargun.ch/pgs/00_home.php
Chesa Sunasain
SILS MARIA

Chesa Semnadur: CH-7514 Sils Maria, phone +41 (0)81 826 50 31
http://www.fewo-sunasain.ch/
Scientific Program
Sunday, February 27, evening

17:30 – 18:30  Welcome reception at Waldhaus

18:30 – 19:30  Simon Philipp Hoerstrup  key note lecture
Stem cells and regenerative medicine

20:00  Dinner at Waldhaus or Chesa Margun
Monday, February 28, morning

07:30 – 08:15  Breakfast at Waldhaus or Chesa Margun

Meeting location: Waldhaus

In vivo Models

Chair: Manfred Windisch

08:30 – 08:50  Jordan McAfoose

Effects of anti-TNF therapies on amyloid pathology and neuroinflammation in 12 month old arcAb mice

08:50 – 09:10  Tobias Welt

Amyotrophic Lateral Sclerosis – an immunotherapeutic approach to fight a fatal disease

09:10 – 09:30  Claudia Späni

Adaptive immune responses in the pathogenesis and therapy of Alzheimer’s disease

09:30 – 09:50  Salome Zeller

Cognitive impairment and motoric deficits are associated with hippocampal and spinal cord SOD1 pathology in SOD1 G93A and SOD1 G37R transgenic mice

09:50 – 10:10  Sonja Grinschgl

Analysis of fem-3 mRNA levels in C. elegans

10:10 – 10:30  Coffee break

10:30 – 11:30  Manfred Windisch key note lecture

Animal models of Alzheimer’s disease: Do they have a predictive value for drug development?
Monday, February 28, afternoon / evening

11:30 – 16:30  Continued scientific discussions on the Furtschellas and Corvatsch mountains

16:30 – 17:10  Individual meetings with the visiting professors in the Lobby at the Waldhaus

Mechanisms and Experimental Therapy
Chair: Uwe Konietzko

17:10 – 17:30  Sarah Hoey
Modulation of hippocampal M1 muscarinic receptor activity on Abeta release – an *in vivo* microdialysis study

17:30 – 17:50  Luka Kulic
Alzheimer’s disease (AD) in the absence of amyloid plaques? — The mystery of the E693Δ familial APP mutation

17:50 – 18:10  Annette Trutzel
Analysis of Aß-mediated disruption of synaptic plasticity in transgenic arcAß mice

18:10 – 18:30  Lisa Strobel
Targeted drug delivery against beta-amyloidosis in Alzheimer’s disease mouse models by using focused ultrasound technology

18:30 – 19:30  André Fischer  *key note lecture*
The role of histone acetylation in age-associated memory impairment and Alzheimer’s disease

19:30 – 20:00  Cocktails at Waldhaus or Chesa Margun
20:00        Dinner at Waldhaus or Chesa Margun
Tuesday, March 1, morning

07:30 – 08:15  Breakfast at Waldhaus or Chesa Margun
  
  **Meeting location: Waldhaus**
  **DARPins and Slices**
  Chair: André Fischer

08:30 – 08:50  Marco Frey
  The role of KIBRA in learning and memory

08:50 – 09:10  Fabian Wirth
  Designed ankyrin repeat proteins (DARPins): a novel approach to Aβ-modifying therapies

09:10 – 09:30  Michael Hanenberg
  Aβ-binding entities from the field of ankyrin repeat proteins

09:30 – 09:50  Christian Tackenberg
  Differential involvement of synaptic and extrasynaptic NMDA receptors in Aβ-induced tau toxicity and dendritic spine loss

09:50 – 10:30  Coffee break

10:30 – 11:30  Amedeo Caflisch  **key note lecture**
  Multi-scale simulation studies of amyloid aggregation and design of small-molecule inhibitors
### Tuesday, March 1, afternoon / evening

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>11:30 – 16:30</td>
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**Clinical Research**  
Chair: Simon Philipp Hoerstrup

<table>
<thead>
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| 17:10 – 17:30 | Anita Szodorai  
Reduced B-cell memory against Aβ correlates with cognitive deficits in Alzheimer’s disease: a study update |
| 17:30 – 17:50 | Andrea Kälin  
Serum and CSF biomarkers for MCI and AD |
| 17:50 – 18:10 | Anton Gietl  
Brain Beta-Amyloid Imaging in Healthy Elderly Subjects- First Results of the “PiB Study” |
| 18:10 – 18:30 | Henrike Wolf  
Hippocampal cavities in elderly subjects – prevalence, evolution and impact on cognition |
| 18:30 – 19:30 | John Growdon [key note lecture]  
Amyloid and Alpha-Synuclein PD Dementias |
| 19:30 – 20:00 | Cocktails at Waldhaus or Chesa Margun  
20:00 | Dinner at Waldhaus or Chesa Margun |
Wednesday, March 2, morning

07:30 – 08:15  Breakfast at Waldhaus or Chesa Margun
Meeting location: Waldhaus
Cell Biology 1
Chair: Lawrence Rajendran

08:30 – 08:50  Boas Felmy
A novel multiplexing assay to detect both β- and γ-cleavages of the amyloid precursor protein from a single sample (e.g. CSF or cell culture supernatant)

08:50 – 09:10  Jitin Bali
Cellular signaling mechanisms regulating the production of β-Amyloid

09:10 – 09:30  Michael H. A. Schmitz
Protease RNAi screen identifies novel APP cleavage regulators

09:30 – 09:50  Barbara Siegenthaler
A genome wide Protease RNAi screen suggests that presenilins are cleaved in an autoproteolytic manner

09:50 – 10:10  Sebastian Zurbriggen
LAP (Location and Affinity Purification) technology to study proteins involved in Alzheimer’s disease (AD)

10:10 – 10:30  Coffee break

10:30 – 11:30  Jan Lünemann  key note lecture
Viral Infections in the Pathogenesis of Multiple Sclerosis
<table>
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<tbody>
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</tbody>
</table>

**Cell Biology 2**

*Chair: John Growdon*

<table>
<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>17:10 – 17:30</td>
<td>Uwe Konietzko</td>
<td>What role does AICD nuclear signaling play <em>in vivo</em>?</td>
</tr>
<tr>
<td>17:30 – 17:50</td>
<td>Saoussen Ben Halima</td>
<td>Design of BACE1 modulators for Alzheimer’s disease therapy</td>
</tr>
<tr>
<td>17:50 – 18:10</td>
<td>Manuel Gersbacher</td>
<td>The role of BACE1 in voltage-gated sodium metabolism</td>
</tr>
<tr>
<td>18:10 – 18:30</td>
<td>Jenny Franberg</td>
<td>Cellular routes for release of α-synuclein</td>
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<tr>
<td>18:30 – 19:30</td>
<td>Walter Nickel</td>
<td><em>key note lecture</em> The Unconventional Secretory Machinery of Fibroblast Growth Factor 2 – a Potent Mitogen Involved in Tumor-induced Angiogenesis</td>
</tr>
</tbody>
</table>

19:30 – 20:00 Cocktails at Waldhaus or Chesa Margun
20:00 Dinner at Waldhaus or Chesa Margun
Thursday, March 3, morning

07:30 – 10:00  Breakfast at Villa Laret or Waldhaus
10:00  Departure
Visiting professors
Amedeo Caflisch (born on 1963 in Italy) studied theoretical physics and was a PhD student at the ETH in Zurich where he graduated in 1991. From 1992 until 1994 he was a postdoctoral fellow in the research group of Prof. Martin Karplus at the Chemistry Department of Harvard University. He joined the Department of Biochemistry of the University of Zurich in 1995 as Oberassistent and was appointed Assistant Professor in 1996. Since 2001 he is full Professor of Computational Structural Biology at the same Department. He has published about 150 papers and 10 book chapters since 1992, and 26 PhD students have graduated in his group since 1999.

Currently, the Caflisch research group is composed of about 10 PhD students and 5 postdocs with very different background ranging from mathematics to biochemistry. The research activities are extremely multidisciplinary and include development and applications of computational methods to investigate protein aggregation and folding as well as structure-based drug design. The Caflisch group belongs to the development team of the CHARMM program, which is the most used and versatile program for molecular dynamics simulations of proteins.
PROFESSIONAL POSITIONS AND EMPLOYMENT

Since 01/2007  Independent Group leader at the European Neuroscience Institute
             Göttingen, Head of the Laboratory for Aging and Cognitive Diseases
Since 01/2007  Member of the ENI-Network of European Young Investigators
Since 12/2006  Affiliate at Massachusetts Institute of Technology, Picower Center for
             Learning and Memory, Cambridge, Massachusetts, U.S.A.
2005-2006     Postdoctoral Research Fellow at Massachusetts Institute of Technology,
             Picower Center for Learning and Memory, Cambridge, Massachusetts, U.S.A.
             Prof. Li-Huei Tsai
2003-2006     Postdoctoral Research Fellow at Harvard Medical School, Department of
             Pathology, Boston, Massachusetts, U.S.A. Prof. Li-Huei Tsai
2002-2003     Postdoctoral Research fellow, Max Planck Institute for Experimental
             Medicine, Göttingen, Germany, Dr. Jelena Radulovic
HONORS AND AWARDS

2010    EMBO Young Investigator Award
2010    Innovationspreis des Landkreises Göttingen
2009    Dr. Wilmar Schwabe Preis der Deutschen Hirnliga e.V.
2009    Alzheimer Research Award of the Hans and Ilse Breuer Foundation
2009    Junior Faculty Award of the Alzheimer’s disease/Parkinson’s Disease Organization
2008    Heinz Maier Leibnitz Award of the German Research Foundation (DFG)
2007    European Young Investigator (EURYI) award of the European Science Foundation
2003-2005    Feodor Lynen Fellowship of the Alexander von Humboldt Foundation
2002    PhD, summa cum laude, Georg-August University Göttingen

Research-Topic: Genome-environment interaction- an epigenetic approach towards brain diseases

The long-term goal of my research is to understand the cellular and molecular mechanisms underlying brain diseases and to develop neuroprotective and neuroregenerative therapeutic approaches. To understand the pathogenesis of Alzheimer’s disease and to identify effective therapeutic strategies is a major focus.

There is now accumulating evidence that on an individual level health or disease critically depends on the interaction between genes and environment. Epigenetic mechanisms such as histone-modification and DNA-methylation are key-regulators of gene-environment interactions. Importantly, such epigenetic mechanisms have recently been implicated with the pathogenesis of neurodegenerative and psychiatric diseases (Fischer et al., 2007) (Sananbenesi and Fischer, 2009) (Abel and Zukin, 2008) (Fischer, 2010).

As such, my current hypothesis is that deregulation of genome-environment interactions, especially via epigenetic gene-expression, is a key feature of neurodegenerative diseases such as Alzheimer’s disease.

My aim is to analyze genetic and environmental risk factors for Alzheimer’s diseases with respect to epigenetic gene-expression. I propose that a combination of those factors may lead to a disease-specific epigenetic signature that contribute to the pathogenesis and would therefore be a suitable drug target. In a recent review article we have outlined this hypothesis in detail (see Sananbenesi & Fischer, 2009).
John Growdon is Professor of Neurology at the Harvard Medical School and Director of the Massachusetts General Hospital’s Memory and Movement Disorders Unit. He is the founding Director of the Massachusetts Alzheimer’s Disease Research Center, and now leads the clinical care and research investigation aspects of the Alzheimer Center. Current clinical research themes center on neuroimaging, molecular and biochemical biomarkers of Alzheimer’s disease (1, 2). He also leads the clinical research component of the Massachusetts General Hospital’s Udall Parkinson Disease Center of Excellence. In Parkinson disease, his research focus is on the cognitive impairments that accompany Parkinson; a corollary goal is to identify the biological bases for these impairments. He has developed the concept that Parkinson disease is commonly accompanied by cognitive impairments, and that these accelerate in number and severity as the motor signs increase over time. Just as amyloid deposits seem to set in motion the pathological cascade of neuronal death leading to dementia in Alzheimer’s disease, so too a similar mechanism is postulated in Parkinson disease, where beta-amyloid and alpha-synuclein may be a potent neurotoxic combination. Evidence for this hypothesis is building, but still not yet complete: Most patients with dementia with Lewy bodies have evidence of excessive fibrillar amyloid on PiB PET scans (3), and ~40% of non-demented parkinsonian patients also have increased PiB uptake on PET scans. A study is now underway to follow these individuals and determine whether they develop cognitive impairments and eventual dementia at a higher rate that those patients with no PiB uptake at baseline.

Selected Publications:
2). Dickerson BC, Bakour A, Salat DH et al. The cortical signature of Alzheimer’s disease: Regionally specific cortical thinning relates to symptom severity in very mild to mild AD dementia and is detectable in asymptomatic amyloid-positive individuals. Cerebral Cortex 2009;19:497-510.
Simon Philipp Hoerstrup, MD and PhD

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CH-8091 Zurich, Switzerland
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Fax: +41 44 255 4369
E-mail: simon_philipp.hoerstrup@usz.ch

Prof. Dr. med. Dr. rer. nat. Simon P. Hoerstrup is Head of the Swiss Center of Regenerative Medicine (SCRM) and Scientific Director at the Department of Surgery, both at the University Hospital and University of Zurich, Switzerland. Dr. Hoerstrup obtained his medical (M.D.) and scientific (Ph.D.) education at Universities in Germany (Cologne), Switzerland (Bern), and the USA (Houston, Baylor College of Medicine and Boston, Harvard Medical School). After his clinical training in Cardiovascular Surgery at the University Hospital Zurich, Dr. Hoerstrup was post-doc research fellow at Children’s Hospital and Massachusetts General Hospital, both Harvard Medical School, Boston, USA (1998-2000).

In 2001, Dr. Hoerstrup obtained the Venia legendi in Cardiac Surgery at the University of Zürich. Since 2003, he is Professor of Biomedical Engineering at the Technical University Eindhoven (The Netherlands), and since 2008 Professor of Experimental Surgery at the Medical Faculty of the University of Zürich. Currently, Dr. Hoerstrup is Head of the Regenerative Medicine Program and Scientific Director at the Department of Surgery, both University Hospital and University of Zurich, Switzerland. Dr. Hoerstrup’s research activities are mainly focused on biologically inspired novel medical technologies, such as tissue engineering, cell based therapies and regenerative medicine with a special interest as to cardiovascular disease. His work at the interface of basic science and translational research has resulted in more than 100 peer-reviewed scientific publications and a unique patent portfolio within this innovative field. Dr. Hoerstrup serves as a reviewer for numerous journals as well as for a number of granting agencies including the Swiss National Foundation, The German Research Council, the BMBF and the EU. Furthermore, Dr. Hoerstrup is co-founder of several University Spin-off companies in the Biotechnology and Medical Technology sector and serves on the scientific advisory board of various Life Science companies. Over the last ten years Dr. Hoerstrup’s work has been acknowledged by several awards, among them the Pfizer Price “Cardiovascular” (2009), the Swiss Entrepreneurial Award (2009), the European Society of Artificial Organs (ESAO) Research Award (2006), the Pioneer-Prize, Switzerland (2004), the Pfizer Price, Swiss Society of Cardiology (2003), the Ethicon-Prize, German Society of Thoracic and Cardiovascular Surgery (2002), the C. Walton Lillehei-Award, European Association of Cardiothoracic Surgery (EACTS 2001) and the Historic Milestones of Harvard Medical School (1999).
Jan Lünemann, PhD
Assistant Professor of Neuroinflammation
Institute of Experimental Immunology
University of Zürich
Winterthurerstrasse 190
8057 Zürich
Switzerland
Phone: +41-44-635-3710
Email jan.luenemann@uzh.ch

Research Interest: Clinical and Experimental Neuroimmunology

Research Experience
2010 – date  Assistant Professor and Head of the Department of Neuroinflammation, Institute of Experimental Immunology, University of Zürich, Zürich, Switzerland
2007 – 2009  Research Associate, Rockefeller University, Laboratory of Viral Immunobiology, New York, NY, USA
2005 – 2006  Postdoctoral Fellow, Rockefeller University, Laboratory of Viral Immunobiology, New York, NY, USA (Prof. C. Münz)
2004 – 2005  Postdoctoral Fellow, National Institutes of Health, Neuroimmunology Branch, Cellular Immunology Section, Bethesda, MD, USA (Prof. R. Martin)
2002 – 2004  Clinical research training at the Institute of Neuroimmunology, Charité, Humboldt University of Berlin, Germany (Prof. F. Zipp)

Clinical Experience
2000 – 2004  Residency, Department of Neurology, Charité, Humboldt University of Berlin, Germany (Prof. K. M. Eihäupl)
2010 – 2011  Residency, Department of Psychiatry and Psychotherapy, University Hospital of Zurich, Switzerland (Prof. U. Schnyder)
### Education

<table>
<thead>
<tr>
<th>Year</th>
<th>Institution</th>
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</thead>
<tbody>
<tr>
<td>1996 – 1999</td>
<td>Medical Studies at the Humboldt University Berlin, Germany</td>
</tr>
<tr>
<td>1994 – 1996</td>
<td>Medical Studies at the Free University Berlin, Germany</td>
</tr>
<tr>
<td>1992 – 1994</td>
<td>Medical and Philosophical Studies at the Goethe University of Frankfurt/Main, Germany</td>
</tr>
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### Scholarships and Awards

<table>
<thead>
<tr>
<th>Year</th>
<th>Award</th>
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<tbody>
<tr>
<td>2008</td>
<td>Junior Faculty Travel Award, American Association of Immunologists</td>
</tr>
<tr>
<td>2006 – 2008</td>
<td>Human Immunology Award, Dana Foundation and Irvington Institute for Immunological Research (New York, NY)</td>
</tr>
<tr>
<td>2004 – 2005</td>
<td>Postdoctoral Fellowship, German Research Foundation/DFG (Bonn, Germany)</td>
</tr>
<tr>
<td>1998 – 1999</td>
<td>Scholarship of the German Rheumatism Research Center (Berlin, Germany)</td>
</tr>
<tr>
<td>1996 – 1999</td>
<td>Scholar of the Heinrich Böll Foundation (Berlin, Germany)</td>
</tr>
</tbody>
</table>

### Scientific Organisations

Member of the American Academy of Neurology, the German Society for Neurology, the German Society for Immunology, the International Association for Research on Epstein-Barr virus and Associated Diseases

### Ad hoc reviewer

The Journal of Experimental Medicine; Lancet Neurology; Annals of Neurology; Brain; Neurology; EMBO Journal; Clinical Infectious Diseases; Journal of Neurology, Neurosurgery, and Psychiatry; Journal of Neuroimmunology; Faculty of 1000; Reviewer for Research Grants of the Danish Medical Research Council, The Myositis Association, and International Multiple Sclerosis Societies
Education and employment record

07/1994 – 09/1997 Post-doctoral fellow with Prof. Dr. Felix T. Wieland
Institute for Biochemistry I, University of Heidelberg, Germany
10/1997 – 04/2000 Post-doctoral fellow with Prof. Dr. James E. Rothman
Memorial Sloan-Kettering Cancer Center, New York, U.S.A.
Cellular Biochemistry and Biophysics Program
05/2000 – 11/2004 Junior Group Leader at Heidelberg University Biochemistry Center
since 12/2004 Professor at Heidelberg University Biochemistry Center, Faculty of Biosciences

Current coordinating functions

• Chair of the DFG graduate school “Quantitative Analysis of Dynamic Processes in Membrane Transport and Translocation” at Heidelberg University
• Chair of the EuroMembrane research network of the European Science Foundation

Scholarships

1995 - 1996 Fellowship from the German Research Foundation (DFG) for research in the laboratory of Prof. Dr. Felix T. Wieland (Biochemie-Zentrum Heidelberg, University of Heidelberg, Germany)
1997 –1998 Feodor-Lynen fellowship from the Alexander von Humboldt foundation for research in the laboratory of Prof. Dr. James E. Rothman (New York, U.S.A.)
1998 –2000 Fellowship from the Human Frontiers Science Program for research in the laboratory of Prof. Dr. James E. Rothman (New York, U.S.A.)
Education

1985 – 1990  Study of Biology, University of Göttingen, Germany Major: Biochemistry; Minor: Microbiology, Organic Chemistry

1988 – 1989  Max Planck Institute for Experimental Medicine (Göttingen, Germany), Department for Chemistry (Prof. Dr. Fritz Eckstein)

1990 – 1991  Diploma Thesis, Max Planck Institute for Experimental Medicine, Department for Chemistry (Prof. Dr. Frank Grosse)

1991 – 1994  PhD thesis, University of Göttingen, Germany, Department for Clinical Biochemistry (Prof. Dr. Hans-Dieter Söling)

2001  *venia legendi* in Biochemistry Medical Faculty of the University of Heidelberg

Most important publications:


Manfred Windisch, PhD

CEO and President
JSW Lifesciences GmbH
Parkring 12
A-8074 Grambach
AUSTRIA
Phone: (+43 316) 25 81 11-111
Fax: (+43 316) 25 81 11-300
E-mail: mwindisch@jsw-lifesciences.com
www.jsw-lifesciences.com

Dr. Manfred Windisch founded JSW Lifesciences GmbH, an independent international contract research organization located in Grambach, Austria in the year 1999. JSW specializes on research about neurodegenerative disorders and in his current capacity Dr. Windisch focuses on pharmacological studies of novel compounds for treatment Alzheimer’s, Parkinson’s disease and stroke, from molecular screening up to in vivo model systems and the design of clinical studies. After graduation from the University of Graz in 1985 he spent several years heading a neurobiology group at the University with research in the field of brain metabolism and animal model development after which he was involved for many years in University and industrial research programs in Europe, North America and Asia. He established a global network of research collaborations and stimulated intensive scientific information exchange. Besides his involvement in research on neurotrophic and neuroprotective factors, he spearheaded several international clinical studies in Alzheimer’s disease, vascular dementia and ischemic stroke. He is a highly active member of the scientific community and has authored many original research articles in peer-reviewed journals and is organizing conferences in the field of drug development for treatment of neurodegenerative diseases. At the moment his research activities are concentrated on the role of alpha and beta-synuclein in pathogenesis of PD and AD. The main focus is to explore therapeutic possibilities for preventing alpha-synuclein pathology and the interaction with amyloid deposition. He is also active in creating improved models of neurodegenerative diseases, which should allow early drug testing with a higher predictive value. As a member of several scientific advisory boards he is helping to coordinate preclinical and clinical research activities in that field on an international level.
Review Articles

Research Grants.
Project funded by FFG (Austrian Science Fund)
2003 – 2006 In vitro and in vivo investigation about the neuroprotective potency of B-synuclein derivatives in tissue culture and animal models of Alzheimer’s and Parkinson’s disease
2007 Project line for the support of industry related research - Establishment of neuronal cell culture systems for drug development for AD and PD, Principle Investigator (PI)
2006 Establishment of new APP transgenic mouse models; Principle Investigator (PI)

Project funded by the European Community (FP6)
2005: Alzheimer’s disease-treatment targeting truncated Aβ1-40/42 by active immunisation;PI