

INTERNATIONAL CONFERENCE

# Scientific Challenges in European Health

Representation  
of the Free State of Bavaria  
to the European Union

Brussels, 20 October 2010

Agenda, 20 October 2010

16.30 Reception and Welcome Drinks

17.00 Welcome Address

*Dr. Angelika Schlunck*  
Director of the Representation of the Free  
State of Bavaria to the European Union

Moderation

*Ingrid Zwoch*  
NCP Life Sciences, Germany

*Dr. Claudia Eggert*  
Deputy Director, European Liaison Office of the  
German Research Organisations, Brussels

17.15 Neurosciences - Perspectives of Adult  
Neural Stem Cells

*Prof. Jürgen Winkler*, Friedrich-Alexander  
University Erlangen-Nuremberg

17.45 Bioimaging - A Core Discipline of  
Tomorrow's Biology and Medicine

*Prof. Vasilis Ntziachristos*, TUM and Helmholtz  
Center Munich

18.15 Discussion

18.30 Musculoskeletal Regeneration - Innovative  
Therapies for Our Ageing Society

*Prof. Matthias Schieker*, LMU Munich  
*Prof. Franz Jakob MD*, University of Würzburg

19.00 Molecular Biosystems in Health and  
Disease

*Prof. Patrick Cramer*, LMU Munich  
*Dr. Michela Bertero*, Center for Genomic  
Regulation, Barcelona

19.30 Discussion

19.45 Buffet and Poster Session

Venue



Representation of the Free State of Bavaria to the  
European Union, Rue Wiertz 77, B-1000 Brussels

Registration

Please register online by 1 October 2010:  
[www.bavarian-research-for-europe.eu](http://www.bavarian-research-for-europe.eu)

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In cooperation with:



In order to ensure Europe's excellence in health care and medical science it is crucial to identify major international trends at the very frontline of research. Only by duly addressing future health challenges the long-term well-being of European citizens can be assured. So which are the pivotal topics of tomorrow's medical research?

**The overall objective of this conference is to provide a platform for discussing key challenges, in medical sciences with international stakeholders from science, industry and EU research policy-makers.**

Starting off with presentations based on common positions with international partners, leading scientists from renowned research centres will point out relevant future trends, taking into account scientific, social, and economic aspects. The subsequent discussions aim at opening up new horizons for promising future research topics, in particular for the thematic priority Health of the 7th Framework Programme, as well as beyond 2013.

In addition, scientists are given the opportunity to present individual or team research profiles in a poster session to extend the range of the themes covered by the talks.

Four major themes will be highlighted at the event:

### **Neurosciences**

Progressive neurodegenerative disorders such as Parkinson's and Alzheimer's disease are strongly linked with ageing and will challenge even more

our societies in the next decades based on the epidemiological development of industrialized countries. There are very limited treatments available in the clinic which ameliorate certain symptoms, but fail to target the underlying cause or are able to modify the course of the disease. The development of regenerative cell replacement therapy on the basis of adult stem cells represents a promising path to decipher a cure for these diseases.

### **Bioimaging**

Modern Bioimaging is a multi-disciplinary area engaging multiple fields and industries. By using Bioimaging biological discovery can be accelerated, diagnosis and treatment efficiency improved. Furthermore, through earlier detection of e.g. cancer and more efficient treatment healthcare costs can be reduced. Bioimaging will therefore increase Europe's competitiveness in this sector.

### **Degenerative Diseases**

Typical degenerative diseases in the skeletal and musculoskeletal system are osteoporosis and osteoporosis related fractures, as well as osteoarthritis, intervertebral disc deterioration and degeneration of tendons. Treatment of these age-related diseases will be essential to maintain the autonomy and independence of old patients. However, none of the currently used therapeutic procedures (e.g. artificial joints, implants or drug therapy) are able to regenerate damage within the tissue; rather they can merely limit it. Therefore, the development of innovative therapies to allow for new regenerative treatment options for our ageing society.

### **Biosystems Research**

Research on molecular biosystems (systems biology) is based on genome and proteome research, and will play a central role in future biosciences. The aim of this interdisciplinary research field is to create a catalogue of all molecules participating in specific cellular processes and to understand the interplay of molecules in complex regulatory networks. One upcoming goal is to develop models for making predictions on the behavior of living cells. This innovative research area provides key technologies for cancer and dementia research as well as the development of stem cell therapies.

### **Health research in Bavaria**

With this event the Bavarian state universities present their top class know-how in medical research and medical technology. They are known as competent partners of international companies operating in these fields. About 250 firms in the area of medical technology and pharmaceuticals have established themselves or subsidiaries in Bavaria – Europe's "Medical Valley" – among them top global players such as Siemens Medical Solutions, Novartis Pharma and Roche. The region covers over 60% of the German MRI imaging technology production and 30% of the entire German production in medical technology.

To face future medical challenges, the Bavarian State is funding several large research programmes like ForNeurocell in the field of neurosciences or ForZebra in degenerative diseases.