



EUROPEAN BIOALPINE CONVENTION

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Press Pack

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INDEX

Building on TransAlpine Synergies	p.3
<ul style="list-style-type: none">- The transalpine BioCluster: federating academic resources and industry best-practice- European BioAlpine Convention: Connecting research and industry- One theme binding together the participants' expertise	
Innovation in Neuroscience: a European public health challenge	p. 5
<ul style="list-style-type: none">- Introduction- Session 1: Neuroimaging- Session 2: The role of 'omics' in Neuroscience- Session 3: Aging and Dementia- Session 4: New Breakthrough Therapies	
European BioAlpine Convention : programme	p. 8
<ul style="list-style-type: none">- Programme- Participant profile- Brokerage Event- Poster Session	
A scientific committee of the highest calibre	p. 10
The TransAlpine BioCluster: Federating resources across borders	p. 11

BUILDING ON TRANSALPINE SYNERGIES

THE TRANSALPINE BIOCLUSTER: FEDERATING ACADEMIC RESOURCES AND INDUSTRY BEST-PRACTICE

The Adebag in France's Grenoble-Rhône-Alpes region, the Bioindustry Park in Italy's Turin-Piedmont region and BioAlps for Western Switzerland (Geneva-Lausanne), have signed an agreement in January 2006 aimed at building a zone of transalpine excellence in the sectors of bio- and medical technologies.

This agreement has confirmed the desire of the three organisations, already working on bi-national projects, to create, a unique and internationally visible entity in the Alps with a strong specialisation in bio- and medical technologies. The three organisations aim to build on current synergies, exchange best-practice and facilitate access to resources, academic expertise and high-tech work spaces; bringing together different elements of the sector, project leaders, industry figures and financiers in particular.

EUROPEAN BIOALPINE CONVENTION: CONNECTING RESEARCH AND INDUSTRY

As its first action, the Transalpine Biocluster is launching a major European project by organising the first European BioAlpine Convention.

Its aim is to create, on a European scale, a new opportunity for Industry and Academia to come together, which will:

- Facilitate contacts between academics and industry leaders
- Help the emergence of innovative projects
- Stimulate partnerships between researchers, SMEs, and large industrial groups, with the final perspective of contributing to the progression of health science.

ONE THEME BINDING TOGETHER THE PARTICIPANTS' EXPERTISE

Organised in turn by the French, Italian and Swiss organisations, the European BioAlpine Convention will have a new theme every year. For its inaugural edition, the organisers have chosen **Neuroscience**. This choice was dictated by the **numerous synergies and expertise available in this domain in each of the regions involved:**

§ Grenoble/Rhône-Alpes: Neuroscience research is divided between two complementary institutions: the Federal Institute of Neuroscience in Lyon, which is linked to the Institute of Cognitive Sciences and Grenoble's Institute of Neurosciences. They bring together more than 800 researchers and students in multidisciplinary groups that mix fundamental research and clinical trials. The areas covered include Neurosensorial Mechanisms (hearing, sight, smell, pain) as well as, in Grenoble's case, applications in the domain of diseases of the nervous system, notably neurodegenerative diseases (Parkinson's, Alzheimer's, etc.), multiple-sclerosis, epilepsy, cerebro-vascular incidents, psychiatric and cognitive diseases (such as schizophrenia, clinical depression, obsessive compulsive disorders, insomnia, etc.). These diseases are associated, for some, with aging and handicaps and, for others, to Neurocancer. Functional cerebral imaging (by MNR, nuclear medicine, positronic emitters, magnetoencephalography and synchrotron radiation) blends the different research areas, and ensures that the human brain can be studied directly and painlessly while still functioning. The region also has a wealth of existing and nascent companies such as bioMérieux, the Centre of Ergotherapy and Ergonomics (CREE), Thebaud BioMedical Instrument, ISIS Robotics, Synapcell, Neuromic, Imedex, Addex, Theralys

- § Turin/Piedmont (Italy): the University of Western Piedmont, the Bioindustry Park and the University of Turin, which has a Department of Inorganic Chemistry and a Department of Neuroscience, are at the origin of many neuroscience research papers. The region also profits from centres of excellence such as the Fondation Cavalieri Ottolenghi, which looks mainly at the prevention, diagnosis and treatment of neurological disorders, the Centre for Cognitive Sciences and the Rita Levi Montalcini Centre for Neurosurgery which specialises in plasticity and the repair of neurons. The region houses industrial powerhouses such as Serono, Bracco, UCB Pharma as well as new companies like Creabilis Therapeutics, Medestea Recherche & Production, Vanadis.
- § Geneva/Lausanne/Western Switzerland: Life Sciences are covered by 12 research institutions in Western Switzerland (EPFL, HUG, CHUV, UNIL, UNIGE, UNINE, UNIFR, HEVs, ISREC, CSEM, the Ludwig Institute and the Swiss Institute of Bio-computing) and most of them are working in Neuroscience. A good example of inter-institutional cooperation is the Centre for BioMedical Imagery (CIBM), created by 5 institutions : the Ecole Polytechnique Fédérale de Lausanne (EPFL), the University of Lausanne (UNIL), the University of Geneva (UNIGE), the University Hospitals of Geneva (HUG) and the University Hospital Centre for the Vaud Canton (CHUV). The aim of the CIBM is to improve BioMedical Imaging techniques, while helping solve biomedical problems, using the network of the 5 founding institutions.
- § At the same time, scientific cooperation between research teams in France's Rhone Alps region and Geneva has helped create a centre for international research into aging in Archamps, France, close to the Swiss border.

THE 2006 THEME: INNOVATION IN NEUROSCIENCE A EUROPEAN PUBLIC HEALTH CHALLENGE

400,000 people in France are affected by Alzheimer's or similar diseases, 40,000 alone in the Rhône-Alps region, and more than 4 million in the United States. These figures, which can be easily applied to any other country, explain why neurodegenerative diseases are becoming a priority for developed countries.

The European Commission has therefore integrated a Health theme which covers « research into the brain and its pathologies, human development and aging » into its 7th Research and Technical Development Framework Programme, which will run from 2007-2013, and France has announced the launch of a national research project into the brain and diseases of the nervous system, which will be confirmed and defined before the end of this year.

Far from being limited to neurodegenerative diseases, Neuroscience is a vast discipline which covers any research that explores the nervous system. For this reason, the scientific committee of the European BioAlpine Convention have focused the event on 4 main research topics:

- § Neuroimaging, including MNR, PET, Neuro-pharmacology and molecular imaging
- § The role of -omics in neuroscience, including proteomics, genomics, metabolomics, biocomputing, pharmacogenomics and biochips
- § Ageing and Dementia, including neuro-degeneration, cognition, movement disorder and dementia
- § New breakthrough therapies, including stem cells, gene therapy, brain stimulation and neurosurgery

Each of these topics will be covered by a working session, which will consist of scientific conferences and company presentations.

Session 1: Neuroimaging

The neuroimaging field is emerging as one of the most important areas for identifying pharmacodynamic biomarkers and pharmacokinetic read-outs for integrated in vivo characterization of drug actions in the brain. One important aspect of this development is the translational possibilities between animal models and man. This also provides unique possibilities to study pathophysiological processes with high spatial and temporal resolution in situ in different exploratory settings. In addition to the exploratory potential, in recent years the power of neuroimaging approaches is becoming apparent in obtaining improved diagnostic precision in neurological, and possibly psychiatric diseases, as well as an essential instrument for invasive brain treatments.

The session on Neuroimaging will provide a view on the state of the art for imaging approaches of the brain, stretching from experimental studies in preclinical and clinical settings to diagnostic and surgical procedures in clinical practice. Different technological platforms will be discussed:

- Techniques based on MRI and MRS studies: studies of animal models of neurodegenerative conditions will demonstrate the potential of these techniques. Examples will be given of the use of clinical MRI for diagnostic purposes.
- PET imaging: outlining the potential of this technique in drug discovery and development programs.
- New possibilities of integrating imaging technologies with brain surgery.

è Chaired by Mr **Johan Luthman**, Head of Science at **Serono International**, this workshop will be presented by:

- Christian SPENGER : Experimental MR Research Center, **Karolinska Institute**
Magnetic resonance imaging and spectroscopy biomarkers in transgenic mouse models
- Dr. Liqun WANG : Executive Director, Global Head of Imaging, Biomarker Development Exploratory Development, **Novartis Pharmaceuticals**
Molecular neuroimaging technologies to enhance CNS drug development
- Yves PATOUX : VP, Sales Director, **Isis-Robotics**, Grenoble
Use of neuro-imaging for navigated brain surgery
- Silvio AIME : Chemical Department, **University of Turino**
Responsive MR agents for Neuroimaging applications

Session 2: The role of 'omics' in Neuroscience

The availability of genomic data has allowed to make advantage of new strategies for the identification of differentially expressed proteins that characterise a disease and therefore might act as biomarkers that should reflect at the peripheral level the central pathogenic process. In neurodegeneration research proteomics has been mainly used in the analysis of autaptic specimens from the human brain and of cerebrospinal fluid aimed at obtaining information on alterations in levels and post-translational modifications of proteins involved in the pathogenetic mechanisms. Potential disease biomarkers are particularly useful if they are present in body fluids, like blood (plasma and blood cells) or urine, which are easy to obtain. Here, we will discuss on the state of the art in the transcriptomics and proteomics approach in neuroscience. with particular regard to the analysis of diagnostic predictors of either neurodegenerative diseases like Parkinson's disease, Alzheimer's disease, peripheral neuropathies, or vascular brain injuries, or autoimmune disorders like multiple sclerosis.

è Chaired by Mr. Mauro Fasano, Associate Professor in Biochemistry and Vice-President of the Department of Structural and Functional Biology at the Scientific University of Insubria / Bioindustry Park del Canavese (Italie). This session will be presented by:

- Dr. Massimo Alessio, **San Raffaele Hospital Scientific Institute**
Proteomics analysis of CSF from neurological disorders and development of related computational methods ;
- Dr. Jean-Charles Sanchez, Department of Structural Biology and Bioinformatics, **University of Geneva**
Tools for bridging the gap between brain damage marker discovery and the diagnosis of ischemic stroke patients ;
- Dr. Hadi Abderrahim, **Serono Pharmaceuticals**, Geneva
The genetic basis of autoimmune diseases

Session 3: Aging and Dementia

With the increase of the aging population dementia and Alzheimer's disease are becoming a global health care issue. Today, neither an effective, disease modifying treatment of AD nor an early diagnosis is available.

The session will give an update on new diagnostic markers to predict cognitive decline in elderly and describe genetic and clinical aspect of the Alzheimer's disease potentially leading to new diagnostic tools and therapies. Further presentations will emphasize on novel therapies under development which have the potential to become the first candidates for disease-modifying drugs for Alzheimer's disease.

- è Chaired by Ms **Andrea Pfeifer, CEO of AC Immune**, this session will be presented by:
- Dr. Denis GARCEAU : Senior Vice-President, Drug Development, **Neurochem**
Tramiprosate (AlzhemedM): a potential treatment for Alzheimer's disease
 - Prof. Panteleimon GIANNAKOULOS : Department of Psychiatry Research, **HUG, Geneva**
Predicting cognitive decline in the elderly: from neuropathological markers to functional parameters
 - Dr. Andreas PAPASSOTIROPOULOS : Division of Psychiatry Research, **University of Zurich**
Clinical and genetic aspects of Alzheimer's disease
 - Prof. Hilal LASHUEL: Laboratoire de Neurobiologie Moléculaire et Neuroprotéomique, **Ecole Polytechnique Fédérale de Lausanne**
Protein Fibrillogenesis in Parkinson's and Alzheimer's disease: from Biophysics to therapeutic Strategies
 - Pascal NEUVILLE, PhD : C.S.O **FaustPharmaceuticals SA**, Illkirch

Session 4: New Breakthrough Therapies

The aim of this session is to shed light to new putative treatments, new therapeutic strategies or recently raised therapies with high innovative potency. These are characterized by innovating methods, targets or concepts. Among them, will be illustrated:

- the development of therapies based on gene or cell therapy, most often designed to allow the local production of a lacking compound or a curing drug (peptide or protein), designed to act at a specific target in the brain,
- the role of new compounds acting onto specific molecular cascades triggered by a given receptor, in view of preventing or counteracting pathological defects.
- the role of functional neurosurgery, which is able, to correct abnormal movements, tics, disturbed brain activities (such as epilepsies), mood or obsessive compulsive manifestations known to resist to usual medications.

è Chaired by Mr **Claude Feuerstein**, University Professor and Hospital Practitioner in Neurophysiology, founder of the **Grenoble Institute for Neuroscience** and coordinator of the "**Handicap, Aging and Neuroscience**" cluster created in the **Rhône-Alps region**.

This session will be presented by:

- Dr. Luca BENATTI: **Newron Pharmaceuticals SpA**, Italy
Safinamide: an innovative treatment for Parkinson's disease and Restless Leg Syndrome
- Dr. Didier COQUOZ: **Xigen S.A**, Switzerland
- Nicole DEGLON: Unité d'imagerie isotopique, biochimique et pharmacologique-Programme Imagène **CEA**
Treatment of Neurodegenerative diseases: from cell transplantation to gene therapy
- Pr. Pierre POLLAK: Unité de Pathologie du Mouvement, Inserm U 704 – **Université Joseph Fourier de Grenoble, Centre Hospitalier Universitaire de Grenoble**
Deep Brain Stimulation: a new therapeutical concept

EUROPEAN BIOALPINE CONVENTION
“Neuroscience Innovation: An academic industrial partnership”

PROGRAMME

8h30 - 9h00 : **Welcome**

9h00 - 10h00 **Plenary Session**

Mr Graeme Bilbe, Director of Research into the nervous system at Novartis Pharma AG.

10h00 - 10h30 : **Break**

10h30 - 12h30

Session 1
Neuro Imaging

Chair: Mr Johan Luthman

Session 2

The role of 'omics' in Neurosciences

Chair: Mauro Fasano

12h30 - 14h 30 : **Lunch**

13h30 - 14h 30 : **Poster Session**

14h30 - 17h00

Session 3

Aging and dementia

Chair: Ms Andrea Pfeifer

Session 4

New Breakthrough Therapies

Chair : Mr Claude Feuerstein

17h00 - 17h30 : **Closing speech**

17h30 - 18h30 : **Cocktail**

Location

Alpexpo, in Grenoble

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EUROPEAN BIOALPINE CONVENTION “Neuroscience Innovation: An academic industrial partnership”

PROGRAMME

Participant profile

Researchers, doctoral and post-doc students, new companies, SMEs and large European groups specialising in Neuroscience.

Brokerage Event

This is an opportunity for participants to register in advance and attend a series of 30 minute individual meetings organised throughout the event, giving them the possibility of building strategic contacts linked to the development of their activities or projects.

The organisers of the event are supported by the CRI SOFRAA (Innovation Relay Centre for Western Switzerland / France Rhône-Alps Auvergne) and the CRI Alps. The mission of these Innovation relay centres is to give companies, technology centres and research laboratories direct access to the markets, technologies and potential European partners present in 33 countries. During the last five years, the Innovation Relay Centres, working closely together, have steered more than 12,500 technology transfer negotiations and helped more than 55,000 companies synchronise their technology needs with the results of their research programmes.

Poster Session

The Poster Session will help new and innovative project leaders in the sector of Neuroscience to be discovered. This event will give young high potential researchers and entrepreneurs (companies less than three years old) the chance to demonstrate their work and make themselves known to industry leaders and financiers. From the applications received, forty projects will be selected in advance of the event by the Scientific Committee and presented on the 6th of October. Four prizes representing a total value of 6,000€ will be awarded to the projects considered to be of the highest quality and having the best potential of being taken on by industry.

Applications are open until the 31st of August, 2006.

A SCIENTIFIC COMMITTEE OF THE HIGHEST CALIBRE

Consisting of 14 European Professors and Doctors specialising in Neuroscience and representing both academic and industrial research equally, as well as innovative new companies, the Scientific Committee is made up of some of the biggest names in the sector:

President: Claude Feuerstein, current President of the Adebag, leader of the programme for the future Grenoble Institute of Neuroscience and coordinator of the “Handicap, Aging and Neuroscience” cluster for the Rhône-Alps region

Public research :

- **Pr. Mauro Fasano**, Associate Professor in Biochemistry and Vice-President of the Department of Structural and Functional Biology at the Scientific University of Insubria (Italie).
- **Pr. Michel Jouvet**, Member of the Academy of Science, Professor Emeritus at the University Lyon 1, former Director CNRS Laboratory, Unit URA 1195, and of the Onirology Laboratory at the Inserm, Unit U 52 (Lyon)
- **Pr. Ann Kato** of the Neuroscience Department of the faculty of medicine, Geneva, President of the Swiss Committee for the Organisation of the European federation of Neuroscience in Geneva, 2008
- **Pr. Leonardo Lopiano**, Professor of Neurology, Neuroscience Department of the University of Turin, in charge of motor disorders and the surgical treatments of patients suffering from Parkinson’s disease in particular at the University Hospital of Turin
- **Pr. Pierre Magistretti**, Director of the Centre for Psychiatric Neuroscience, Psychiatric Department CHUV/UNIL (Lausanne) and co-director of the Brain Mind Institute (EPFL) in Lausanne, past President of the FENS (European Federation of Companies working in Neuroscience)
- **Pr. Piergiorgio Strata**, Professor of Neurophysiology at the University of Turin, Director of the Rita Levi Montalcini Centre for brain repair and President of the National Neuroscience Institute in Italy

Private Research :

Industry groups

- **Dr. Hervé Perron**, Director of research into neuro-immunologic diseases at bioMérieux (Lyon) and Scientific Director for multiple sclerosis at Geneuro (Switzerland)
- **Dr. Fulvio Uggeri**, Director of Bracco Imaging’s Centre for Research in Milan
- **Dr. Johan Luthman**, Head of Neuroscience, SERONO International

Innovative SMEs

- **Dr. Laurent Choppe**, CEO of Neurochem International in Lausanne
- **Dr. Silvano Fumero**, founder and CEO of Creabilis Therapeutics in Turin, founder of BioIndustry Park
- **Dr. Andrea Pfeifer**, Founding-President of AC Immune
- **Dr. Xavier Priquel**, founder and CEO of ISIS, specialising in neuro-surgical robotics and medical imaging (Grenoble)

Grenoble-Rhône-Alps / Turin-Piedmont / Geneva-Lausanne-Western Switzerland

THE TRANSALPINE BIOCLUSTER : FEDERATING RESSOURCES ACROSS BORDERS

GRENOBLE-RHÔNE-ALPS

The Adebag, catalyst for Grenoble's BioCluster

Created in 2000, the association for the economic development of biotechnology and bio-industries in the Grenoble metropolitan area (ADEBAG) brings together universities and centres for research, institutions and economic resources in order to facilitate the development of biotechnologies, bio-industry and technologies linked to health sciences in and around Grenoble.

The catalyst for the creation of Grenoble's BioCluster, the Association federates and encourages local organisations to design, transmit, diffuse information and ensures its members a role in European and international biotech activities. It is a motor for the economic development of the life sciences sector, notably by supporting the development of new projects. It organises and structures the biotech Industry by helping start-ups at the different stages of their evolution. It promotes the network of scientific, technological and industrial expertise of the area at a European and international level; finally, it follows a policy of bioclustering at a European level in order to encourage innovation at a trans-national scale, as evidenced by the agreement signed with Bioindustry Park and BioAlps.

Biotechnology in Rhône-Alps: some facts and figures

France's second economic zone after the Parisian agglomeration, the Rhone Alps region is the enviable position of being a leading centre for life-sciences and shows all of the characteristics necessary for a successful international BioCluster. The region houses a number of scientific networks, such as the Génopôle, the Cancéropôle and the Lyon Biopôle, a centre for international excellence.

Home to 65 leading companies such as bioMérieux, Aventis Pasteur and Merial, 3 industry drivers, the Rhone-Alp's biotech activities represent more than 30% of France's total activities in this sector.

Focusing on the Grenoble-Isère area, life-sciences represent:

- û **1,500 jobs in research**
- û **5,000 students, including, on average, 125 doctoral students every year**
- û **7,000 jobs in industry**

Turin-Piedmont

The Bioindustry Park

Located in Canavese in the region of Turin, the Bioindustry Park is a science park aimed at promoting and developing research and development activities and hosting companies working in life-sciences. The park benefits from a Laboratory of Advanced Methodologies (LIMA), which offers a range of services and research activities in molecular biology, biotechnology, chemistry, imaging, bioinformatics and proteomics. The park also contains a bio-incubator (Discovery).

Because of its belief in the necessity of encouraging interaction between research and industry in order to transform academic research into technological innovations, Turin's BioIndustry Park has a number of activities aimed at:

- Stimulating collective research and development projects
- Transforming research results into patents
- Encouraging technology transfer
- Providing the infrastructure necessary for the creation of companies
- diffusing knowledge and expertise

Biotechnologies in the Piedmont

A region particularly at the cutting edge of research and development and new technologies, Piedmont has seen a strong development in the sector of biotechnology. The Universities of Turin and Eastern Piedmont lead the majority of research in this domain, in partnership with the public and private research centres. The region also houses approximately 20 companies and entrepreneurial centres of research entirely dedicated to the sector, amongst which are Serono, Bracco, Diasorin ..., numerous start-ups and about 50 companies that use biotechnologies in the R&D or manufacturing processes.

In total, biotechnology in Piedmont represents:

- § **3000 jobs**
- § **570 research groups**
- § **800 graduates per year**

Geneva-Lausanne-Western Switzerland

BioAlps

A non-profit organisation that brings together members from the economic and academic spheres in French-speaking Switzerland. BioAlps' mission is to promote French and Italian-speaking Switzerland as a centre for excellence in life sciences, research and teaching institutions as well as local companies.

The association works to:

- Promote and reinforce existing synergies amongst its members
- Promote the innovation coming from the elite schools that are its members
- Support the creation of companies
- Build dialogue between the scientific, economic, financial and political spheres in relation to life-sciences

Biotechnology in Western Switzerland

The third most important region of Europe in terms of life-science research publications according to Science Magazine, Western Switzerland is characterised by the intense activity in the life sciences sector



It has :

- § 12 research institutions (EPFL, HUG, CHUV, UNIL, UNIGE, UNINE, UNIFR, HEVs, ISREC, CSEM, the Ludwig Institute and the Swiss Institute of Bio-computing)
- § 450 public research laboratories with 170 people working in applied research
- § 3500 scientists
- § 240 companies
- § 8500 jobs

In addition, 2 national research poles are being lead from this region « Frontiers in genetics » (University of Geneva) and « Molecular Oncology » (Swiss Institute for experimental research into cancer).