In the past two decades, tremendous progresses have been made in brain sciences. We are just beginning to envision their enormous impact for many clinical conditions as well as their consequences for more global societal issues. The emergence of new techniques allowing us to measure, decode, and modulate neural activity will not only increase our knowledge about the human brain and mind, but also revolutionize medical practice in neurology and psychiatry, and perhaps even transform our vision of the human nature. However, these advances will also raise many new questions and fears about the safety, limits, and ethical framework that should define their applications and development. The possibility to assess, predict, and/or influence brain function in psychiatric diseases, for example, leads to delicate and unprecedented questions about privacy, individuality, or consent. Besides these technical challenges and ethical issues, it is also crucial to educate the general public about both opportunities and risks offered by neuroscience, and to promote an appropriate understanding and acceptance of these new techniques by patients, families, and society in general. Thus, changing brains to relieve suffering or improve performance may also imply changing attitudes and societies. The symposium will gather world leading scientists who are working on novel technologies specifically designed to change brain functions for therapeutic or enhancement purposes, together with international experts on ethics and philosophy of science. Different domains of neuromodulation will be addressed including deep brain stimulation, neuroprosthetics, neurofeedback, and pharmacology. This symposium should contribute to increase awareness for these domains and related issues among clinicians and laymen, and ultimately help integrate science and technology with ethical guidance.
PROGRAM & SPEAKERS:

Theodore Berger (USC, Los Angeles): Hippocampal prosthesis
Christopher de Charms (Omneuron Research Center, CA, USA): Real-time fMRI and regulation of pain
Niels Birbaumer (University of Tuebingen and Ospedale San Camillo, Venice): Breaking the silence and creating crime: the two faces of brain regulation
Josephs Fins (Weill Cornell Medical College, NY): Ethical and policy issues related to deep brain stimulation
Bert Gordjin (City University, Dublin): Ethics of neurotechnologies
Walter Glannon (University of Calgary): Neuromodulation, agency, and autonomy
Hartmut Heinrich (University of Erlangen-Nürnberg): EEG feedback in ADHD
Eric Leuthard (WUSM, Saint-Louis): Electroco-corticography and neurorehabilitation
José Millan (EPFL, Lausanne): Brain-machine interface and EEG
Luc Mallet (Hôpital de la Salpêtrière, Paris): Deep brain stimulation in obsessive-compulsive disorders
Jean-Noël Missa (ULB, Brussels): Human enhancement and the brain-mind
Pierre Pollak (HUG, Geneva): Deep Brain Stimulation in Parkinson disease
Adina Roskies (University of Darmouth, USA): Free will, brain imaging, and law
Thomas Schlaepfer (University Psychiatry Hospital, Bonn): Deep brain stimulation and transcranial magnetic stimulation in depression

Organizer committee:

Prof. Patrik Vuilleumier, Geneva University Neuroscience Center (http://neurocenter.unige.ch)
Prof. David Sander, Swiss Center for Affective Sciences (http://www.affective-sciences.org)
Prof. Bernard Baertschi, Geneva University Biomedical Ethics Institute (http://ib.unige.ch)

Registration:

Registration is limited to 50 participants. 150 CHF are requested to register. To register please fill the application form and send it to scientificprog@brocher.ch before 6 April 2011.

For further information, please contact: Marie-Ange.DeLaSen@unige.ch

Location:

Fondation Brocher, Route d’Hermance 471 - 1248 Hermance - Geneva
Bus line: No 8 from Rive (city center)

The Brocher Foundation mission is to encourage research on the ethical, legal and social implications of new medical technologies. Its main activities are to host visiting researchers and to organise symposia, workshops and summer schools. More information on the Brocher Foundation programme is available at www.brocher.ch.