

Press release - 26 May 2016

Innovation & Entrepreneurship headline the opening day of The Brain Forum

The Brain Forum 2016 opened today and is generating massive interest among specialists as well as the general public: more than 1000 people have registered. Over the next two days, researchers, engineers, healthcare professionals, entrepreneurs, industrialists, investors, funding agencies and policy makers will meet at the SwissTech Convention Center in Lausanne (Switzerland) and contribute to translating brain science into tangible, accessible solutions.

Dr. Jamil El-Imad, CEO of The Brain Forum, comments: "The Brain Forum has once again put together a fantastic programme of top speakers who will share and discuss their thoughts, discoveries and ambitions. We also have an impressive exhibition area showcasing the latest technologies, and of course the start-up pitches where young entrepreneurs might just find the big opportunity that they've been waiting for. What you see at The Brain Forum 2016 will be in your future and I'm looking forward to hearing what people think."

On the subject of collaborating with The Brain Forum, Prof. Patrick Aebischer, President of EPFL and member of The Brain Forum's International Advisory Board, adds: "The first The Brain Forum [in Switzerland] has been a success. Building up the second edition of such an event is always challenging, and we are delighted to see a huge interest among the neuroscience community to come back to Lausanne this year."

The Brain Forum is divided into two themed days with the first day dedicated to Entrepreneurship and Innovation, and the second day focused on Science. The Entrepreneurship and Innovation Day will begin with the Keynote lecture **"Practical lessons in machine learning"**. During this session, Greg Corrado, a Senior Research Scientist working at Google Research, will give an overview of Google's current research in machine intelligence that explores virtually all aspects of machine learning, including deep learning and more classical algorithms. Exploring theory as well as application, much of Google's work on language, speech, translation, visual processing, ranking and prediction relies on machine intelligence. In all of these tasks and many others, Google gathers large volumes of direct or indirect evidence of relationships of interest, applying learning algorithms to understand and generalise.

"Engaging stakeholders for a holistic therapy in Alzheimer's disease" is a session that aims to underscore the importance of an integrated multi-disciplinary agenda necessary to address critical knowledge gaps and accelerate the discovery and delivery of efficacious treatments for Alzheimer's patients at all stages of the disease. On this occasion, Dr. Martin Pan, a physician specialised in clinical pharmacology currently the Associate Director for Medical Research, Innovation and External Partnerships at Biogen, will present Using Big Data to define and validate real world outcomes in Alzheimer's disease. Following this presentation, Dr. Antonella Chadha Santuccione will speak about the Streamlining and harmonising the global drug development pathway for Alzheimer's disease treatment. As a Specialised Clinical Reviewer at the Swiss Agency for Therapeutic Products, she will explain how an early dialogue with authorities, combined with adequate and agreed upon preclinical





work as well as measures to ensure the safety and interest of the patient, is the best way forward to cut the drug development time and save costs. This session will end with *Novel therapeutic nutrition*, a presentation given by Dr. Gene Bowman, Head of Nutrition and Brain Health at the Nestlé Institute of Health Science, about how a multi-target approach using combinations of micronutrients and drugs can have beneficial effects on cognitive function in neurodegenerative brain disorders leading to synaptic degeneration.

In the following session, Dr. Aki Hintsa will talk about "Rethinking success", in a thought leadership session organised by UBS. Dr. Hintsa created the "Logical Framework Approach of Human High Performance". This philosophy and concept has been the platform for his later work with many Olympic athletes, Formula 1 drivers and business executives around the world. Based on a holistic and proactive approach, this philosophy integrates six key elements of health and wellbeing. These are physical activity, nutrition, sleep and recovery, biomechanics, mental energy, and general health. Achieving better health and performance is mostly based on improving our status in each of these six elements. According to Dr. Hintsa living a better life also requires us to rethink our concept of success and evaluate our goals in light of who we are and what is important for us.

"The Brain Forum 2016 Innovation Award" will open the afternoon sessions. The competition will once again offer opportunities for early-stage start-ups to connect with leading experts and scientists in the field of brain research as well as with investors interested in the solutions of the future. More than 120 companies working in the field of neuroscience have already been screened. The six start-ups making the final round will have five minutes to pitch their projects to the audience and a jury composed of thought leaders in innovation.

"Neuroscience and mental health: challenges and opportunities" broaches the challenges that mental diseases pose in terms of socioeconomic burden, public health and better management of patients. This session will also focus on opportunities to develop new strategies for integration of neuroscience with psychiatry and possible novel approaches to develop new medicines based on better knowledge of the biological mechanisms of mental diseases. These points will be discussed by Prof. Pierre Magistretti, Dean of the Division of Biological and Environmental Sciences and Engineering at KAUST and Professor of Neuroscience at the Brain Mind Institute, EPFL, Dr. Sophie Dix, Director of Research at MQ: Transforming Mental Health, and Prof. Julio Licino, Deputy Director for Translational Medicine and Head of the Mind and Brain Theme at the South Australian Health and Medical Research Institute.

The first day of The Brain Forum 2016 will close with "Act like you mean it", a reworking of Romeo and Juliet celebrating neuroscience in the 400th year since Shakespeare's death. During this lecture-performance, the authenticity of actor's emotions will be investigated from a theatrical and neuroscientific perspective. Each and every one of us has been touched by our favourite actors' performances. But how do actors convey such complex feelings? Do they really "love" or "hate" their stage partners? "Act like you mean it" will reveal both neuroscientific and artistic answers to these questions. Using artistic expertise and results from modern techniques to examine brain activity, Prof. Thomas Grunwald, Medical Director at the Swiss Epilepsy Centre in Zurich and Prof. Anton Rey, Head of the Institute for Performing Arts and Film at Zurich University of the Arts, will





quarrel over the veracity of actors' emotions during a performance of the Romeo and Juliet balcony scene.

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About The Brain Forum - brainforum.org

The Brain Forum, first launched in 2013, brings together novel thinkers and pioneers in brain research, technology, healthcare and the economy. Researchers, engineers, healthcare professionals, entrepreneurs, industrialists, investors, funding agencies and policy makers will meet at The Brain Forum 2016, to advance our understanding of how the brain works and to accelerate the application and value of this knowledge in society and the economy.

About EPFL – epfl.ch

Ecole polytechnique fédérale de Lausanne, in Switzerland, is one of the most international higher education institutions in Europe. It counts among its ranks roughly 10,000 students and 5,000 employees representing more than 120 nationalities. Education and research are organized into five schools and two colleges, with a strong emphasis on interdisciplinary work. In 2013, the European Commission selected the Human Brain Project, an international effort at understanding the human brain, led by EPFL, as a "FET Flagship initiative". The EPFL is also home to the Brain Mind Institute, which aims to understand the fundamental principles of brain function in health and disease, by using and developing unique experimental, theoretical, technological and computational approaches.

