



Human Brain Project Newsletter

September 2018

Dear Sir or Madam,

Please find below a short overview on recent research and project news from the Human Brain Project (HBP) in September 2018, as well as upcoming HBP events.

Best Wishes,
HBP editorial office

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HBP Open Day 2018 in Maastricht

Maastricht University is honoured to organise this year's HBP Open Day – Enhancing our understanding of the brain. The event is free and open to the public. The Open Day presents latest developments on how modern computing technologies enhance our understanding of the human brain, how this knowledge can be applied to develop new diagnostic and therapeutic tools for brain disorders, and how it can inspire new technologies. At a dedicated HBP Science Market, visitors can learn about HBP from different virtual and physical exhibits, such as exploring the brain in virtual and augmented reality or interacting with smart robots. **Registrations are open now - for more, visit:**

<https://www.hbpopendaysummit-2018.org/openday/programme>

Join us for the Human Brain Project Open Day 2018!



We are excited to invite you to our annual Open Day, on October 15 at MEEC Maastricht, the Netherlands. We look forward to an inspiring day full of discussions, fascinating talks and interactive demonstrations. Hope to see you there!

Prof. Rainer Goebel, Host of the 2018 Open Day
& Prof. Katrin Amunts, HBP Scientific Director

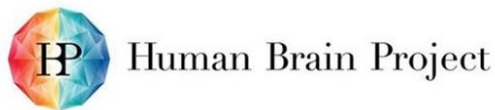
[More](#)

Open Day Keynotes: creativity, intelligence, and the brain



The Open Day Keynotes will be given by two highly distinguished and well-known scientists: Prof. Dick Swaab (Amsterdam), who will talk about creativity and the brain, and Jeff Hawkins (California, USA), whose talk will be about intelligence and the human neocortex. [More](#)

The Human Brain Project and Maastricht



In recent years, Maastricht University has focused on topics that are strongly related to major HBP objectives. Read accounts from five Maastricht-based scientists on their work, including this year's Summit and Open Day host Prof. Rainer Goebel. [More](#)

Research News

JUWELS - powerful new supercomputer supports HBP brain research



At the Jülich Supercomputing Center the new modular JUWELS Supercomputer has been officially inaugurated by Germany's Federal Minister for Education and Research, Anja Karliczek. JSC-director Thomas Lippert and HBP's Scientific Director Katrin Amunts explained the innovative computing concept of

JUWELS and its usage in the HBP. As a German-French collaboration, JUWELS also marks an important step for European Supercomputing development. [More](#)

How brain cells work together for spatial memory and imagery



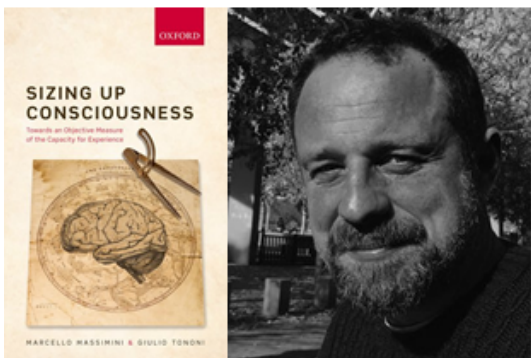
Researchers Neil Burgess and Andrej Bicanski from University College London (UCL) have developed a computational model showing how the mental images we have drawn from our memories can be explained by the firing of individual brain cells. The work contributes to HBP's research area of Theoretical Neuroscience, where Prof. Burgess leads a task on "Models of Spatial Memory". [More](#)

Valentino-Braitenberg-Award for Prof. Wolfram Gerstner



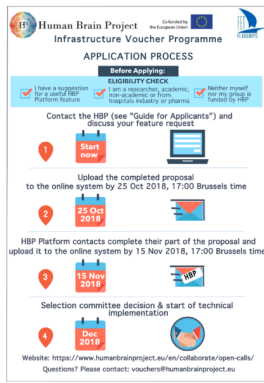
Prof. Wolfram Gerstner has been honored with the Valentino-Braitenberg Award for Computational Neuroscience 2018. Within HBP the scientist develops models to understand the role of plasticity in learning for neuronal populations and networks of neurons using biophysical synapse models. [More](#)

Sizing Up Consciousness



Marcello Massimini is the co-author of a fascinating book on the empirical investigation of consciousness. Originally written in Italian, it is now for the first time available in English under the title "Sizing Up Consciousness. Towards an Objective Measure of the Capacity for Experience". [More](#)

Project News



HBP Voucher Programm - deadline approaching

The Human Brain Project opens its expertise and skills to researchers and groups around the world through a new voucher programme. This Call invites proposals for useful feature requests for the HBP Platform Infrastructure. The winning proposals will receive vouchers, each in the range of 6-12 months of HBP development/engineering time to implement the new feature in the HBP Platform. This Call is unique: external applicants are advised to discuss the feasibility & novelty of their feature request with HBP Platform engineers & developers who will contribute to the proposals already during the application process. The external proposal submission deadline is 25 Oct 2018. The voucher projects are expected to start beginning 2019 and will end on 31 March 2020. [More](#)



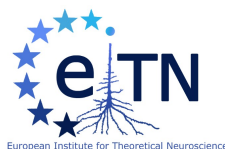
HBP at Life Sciences Baltics 2018

On 26-27 September the HBP was represented at Life Sciences Baltics in Vilnius, Lithuania. The Forum brought together more than 1500 participants. HBP exhibits included samples from high-resolution brain imaging and demonstrations of Deep Learning applications for brain mapping. Representatives of the HBP innovation team were on site to exchange with companies interested in collaboration opportunities. In addition, information on training and collaboration opportunities and the new Infrastructure Voucher Programme were provided. [More](#)



Report on the HBP Human Brain Atlas School

From 3-7 September 2018, this season's first HBP School took place in Jülich, Düsseldorf and Maastricht. 33 participants from various backgrounds were provided an introduction into the HBP's Human Brain Atlas, and gained insights into neuroanatomy and cognitive function of the human brain as well as an overview of methods used in the HBP to investigate its structural and functional organisation. [More](#)



Fall School Art & Science, October 22-27 in Paris

The EITN is supporting the Fall School Art and Science: Transdisciplinarity - increasing scientific and artistic creativity. The European Institute for Theoretical Neuroscience (EITN) was created on March 2014 as part of the Theoretical Neuroscience activities of the HBP. Registration to the school is free but mandatory

due to a limited number of places. The content of the school will be published in the Neurosciences and Art book edition series directed by Zoï Kapoula. [More](#)

Events and Dates

October and beyond

HBP Colloquium at Forschungszentrum Jülich

Central Library, Forschungszentrum Jülich

Oct. 4, 2018 at 09:30 – Oct. 4, 2018 at 18:00

The most promising approach to achieve breakthroughs in the understanding of the human brain is through a collaborative effort of the relevant key players in the field of neuroscience and future computing. Following the example of other successfully organized research communities, the European Human Brain Project (HBP) is building such a research infrastructure, the HBP Joint Platform. Germany plays a major role in this endeavor, and contributes with its European partners to many of its activities. The 10-year project has completed its Ramp-Up Phase and subsequent SGA1 funding period and is now celebrating its halftime. This is a good reason to take a closer look at the successes achieved so far, but also at the challenges that still lie ahead. [Registration](#) is open until September 14, 2018. The full Programm can be found [here](#)

HBP Open Day 2018

Enhancing our understanding of the brain

15 October 2018, MECC, Maastricht, Netherlands

The HBP Open Day is an annual outreach event for the Human Brain Project to present its work to scientists, the media, the public and other stakeholders. The Open Day includes presentations by esteemed experts coming from a range of disciplines related to the HBP's work, such as the famous Dutch brain researcher Prof Dick Swaab. The event will also host the HBP Science Market, an exhibition of cutting-edge technology and scientific results developed within the HBP. Visitors will get the opportunity to directly interact with robots, learn about brain simulation and explore collaboration opportunities with experts from the project. Participation is free, registration is required.

For more information: <https://www.hbpopendaysummit-2018.org/en>

Contact: helpdesk@klinkhamergroup.com

3rd HBP Student Conference on Interdisciplinary Brain Research

Ghent University, Belgium

6-7 February 2019

The 3rd HBP Student Conference provides an open forum for the exchange of new ideas among young researchers working across various aspects of science relevant to the Human Brain Project (HBP). Abstract submission deadline: 23 October 2018

Dual Use and Responsible Research: Ethical Challenges

Karolinska Institutet Stockholm, Sweden

Nov. 15, 2018 – Nov. 17, 2018

This workshop aims to provide participants with insights on ethical aspects of dual-use research in neuroscience and Responsible Research and Innovation (RRI).

Find further events at: <https://www.humanbrainproject.eu/en/follow-hbp/events/>
