EBERHARD KARLS
UNIVERSITÄT
TÜBINGEN

Public Relations Department

Dr. Karl Guido Rijkhoek
Director

Antje Karbe
Press Officer

Phone +49 7071 29-76788
+49 7071 29-76789
Fax +49 7071 29-5566
karl.rijkhoek[at]uni-tuebingen.de
antje.karbe[at]uni-tuebingen.de

www.uni-tuebingen.de/aktuell

Press Release

Attempto Prize for research into memory formation

Doctoral candidates Svenja Brodt and Anuck Sawangjit chosen for new findings about brain functions

Tübingen, 09.10.2019

This year's Attempto Prizes, awarded by the Tübingen Attempto Foundation, go to Svenja Brodt and Anuck Sawangjit of the Institute of Medical Psychology and Behavioural Neurobiology. The two researchers are working on different aspects of memory formation and will each receive 7,500 euros for their further work.

Photo: Friedhelm Albrecht

Svenja Brodt is doing her doctorate at the University of Tübingen on basic principles of memory consolidation, the process by which newly acquired knowledge is anchored in long-term memory. She receives the distinction for a study in which she demonstrated that the cerebral cortex can store new memories much earlier than previously assumed. Traditional models assume that the brain has two systems for memory – one in the hippocampus, which takes in large amounts of information quickly, and the other in the cerebral cortex, where at a later time point lasting memories can be stored in a stable format.

The study by Svenja Brodt shows a different picture. Along with colleagues from the University and the Max Planck Institute for Biological Cybernetics, she developed a method for measuring the physical traces created by the storage of information in the brain. The team was able to detect these structural changes in the cerebral cortex already 90 minutes after learning. The results refute the assumption that this region of the brain can only learn slowly, says Brodt.

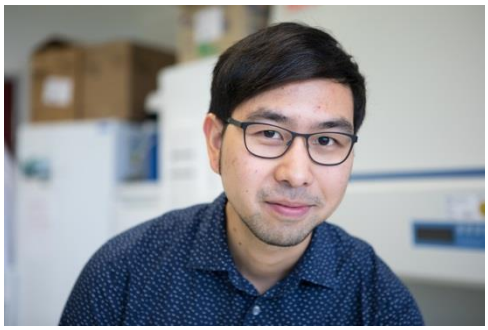

Photo: Friedhelm Albrecht

Anuck Sawangjit shows in his study that there is more to the hippocampus than we expect. Under the direction of Dr. Marion Inostroza and Professor Jan Born, he demonstrated that this region is no less than the control center of long-term memory formation.

The division of labor in memory formation has been known since the 1950s: The hippocampus is responsible for transferring learning content – such as new words – into long-term memory. It is not involved in motor skills such as playing the piano or skiing. In experiments with rats, the team has now shown that the hippocampus also anchors such learning content in the brain long term during sleep. According to the team, even abilities in which the hippocampus is not involved can only become part of long-term memory through the hippocampus. That means it is a higher authority in all types of memory formation.

This year's Annual General Meeting of the Universitätsbund will kick off with the presentation of the Attempto Prizes on **Tuesday, 15 October 2019 at 3 p.m. in the Alte Aula (Münzgasse 30)**. The laudation will be held by **Professor Andreas Fallgatter,** Medical Director of the Psychiatry and Psychotherapy hospital in Tübingen. **Media representatives are welcome to attend**.

The Attempto Prize was inaugurated in 1983 by the psychiatrist Konrad Ernst and his wife Dorothea. It is awarded annually to early-career researchers for outstanding work on brain functions and disorders carried out at the University of Tübingen and at the Max Planck Society's Tübingen institutions. Currently, two young researchers are awarded an annual prize of 7,500 euros each. The money can be used to promote their further scientific careers. The Attempto Foundation has been administered by the Universitätsbund since it was established in 1983.

Publications:

Brodt S, Gais S, Beck J, Erb M, Scheffler K, Schönauer M
Fast track to the neocortex: A memory engram in the posterior parietal cortex
Science, 2018, 362(6418):1045-1048

Sawangjit A, Oyanedel CN, Niethard N, Salazar C, Born J, Inostroza M
The hippocampus is crucial for forming non-hippocampal long-term memory during sleep
Nature, 2018, 564:109-113

Contact:

Svenja Brodt
University of Tübingen
Institute of Medical Psychology and Behavioural Neurobiology
Phone +49 7071 29-73264
svenja.brodt[at]uni-tuebingen.de

Anuck Sawangjit
University of Tübingen

Institute of Medical Psychology and Behavioural Neurobiology
Phone +49 7071 29-88915
anuck.sawangjit[at]medizin.uni-tuebingen.de

Dr. Stefan Zauner
Universitätsbund Tübingen e. V.
Phone +49 7071 29-77067 Secretariat
stefan.zauner[at]unibund.uni-tuebingen.de
http://www.uni-tuebingen.de/de/89702