



SCHWEIZERISCHE HIRNLIGA
LIGUE SUISSE POUR LE CERVEAU
LEGA SVIZZERA PER IL CERVELLO

Press release, 10 March 2014

The brain's construction of our perceptions

The 2014 Research Prize of the Swiss Brain League is awarded to Prof. Micah M. Murray (CHUV Lausanne, Switzerland) and to Prof. Christoph S. Herrmann (University of Oldenburg, Germany).

Our perception is not limited to what the eyes see. Instead, perception is constructed by the brain's shaping of the information that the eyes convey. In their research, the Lausanne-based neuroscientist Prof. Micah M. Murray and his German colleague Prof. Christoph S. Herrmann showed how the brain does this. Their work was awarded the Research Prize of the Swiss Brain League, which confers a sum of 20'000.- CHF.

Vision and perception more generally should not be thought of like a camera that just takes pictures of the world. The brain constructs perception and takes advantage of its massive inter-connectedness in ways that are highly similar to social networks and railway systems. The construction of perception is not only based on the information the eyes capture, but also on information stored in and interpolated by the brain. The visual system is simultaneously capable of separating scenes into their constituent objects and also grouping together elements belonging to the same object. This happens even when borders are invisible or occluded, giving rise to illusory perceptions. "The magic of illusions is not so much in what we perceive, but rather in how they show off the capacity of our brains to shape perceptions," explains Prof. Murray.

The discoveries of Professors Murray and Herrmann are likewise important for our understanding of neurological and psychiatric disorders such as schizophrenia. For example, deficits in visual processing and perception are increasingly recognized as a principal characteristic in patients with schizophrenia. In the next steps of his research, Prof. Murray seeks to apply his results to blind and visually-impaired individuals with the objective of helping restore/rehabilitate visual perception.

Complementary information about this award-winning research as well as illustrations can be found at the Swiss Brain League's website (www.hirnliga.ch > Prix de la recherche).

The award ceremony will take place Wednesday 12 March 2014 at 18:30 in the César-Roux auditorium in the CHUV in Lausanne. The prize is awarded as part of Brain Awareness Week. The ceremony is open to the public.

Swiss brain research is among the best worldwide. In this context, local scientists established the Swiss Brain League in 1995. Among its objectives are to inform the public of ways to maintain and improve brain health. The Swiss Brain League likewise supports research projects that often provide hope for a better future for numerous patients.

www.cerveau.ch

For further information:

Micah Murray
Associate Professor
Center for Biomedical Imaging (CIBM)
Centre Hospitalier Universitaire Vaudois et Université de Lausanne
Tél. : ++41 79 556 6355
e-mail : Micah.Murray@chuv.ch

Swiss Brain League
Sandra Küttel
Postgasse 19
3000 Berne 8
Tél. : ++41 31 310 20 70
e-mail : sandra.kuettel@hirnliga.ch