



External meeting of the Heidelberger Academy at the University of Stuttgart

Lecture "How do cellular collectives decide" by

Professor Joachim P. Spatz

The term collective originally stood for a social structure of living creatures. The term, however, is also used in the natural science field in order to describe characteristics of matter not restricted to living creatures, e.g. of living cells or quantum materials. A question transgressing disciplinary borders is hereby the development of decision processes in collectives.

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Photo: private

Decisions on leaders evolved from mobile human and animal groups through collective decision-making require the active participation of an individual and his interaction with the environment. In a similar way this behaviour can also be found on the level of individual cells making up the smallest living entity. The collective cell migration drives many critical biological processes, including wound healing, organogenesis and cancer development. In the collective migration of the cells these move as a coordinated and contiguous group, whereby each individual cell forms strong interactions with neighbouring cells and the environment. Collective cell migration requires the decision process on function-forming processes, for example the identification of guide cells.

Joachim Spatz is a Professor for Biophysical Chemistry at the University of Heidelberg and a Director at the Max Planck Institute for Intelligent Systems in Stuttgart. In 2017 he was awarded the Gottfried Wilhelm Leibniz prize from the German Research Foundation for his research work.



The external meeting takes place each year in cooperation with another state university in Baden-Württemberg. This year the University of Stuttgart is the partner.

Media representatives are cordially invited. We request that an announcement be made. We look forward to it being reported. The event is public, the entrance is free.

Time: Saturday, 9th December 2017, 11 am
Venue: University of Stuttgart (lower lecture hall 17.01)
Keplerstraße 17 (K II)
70174 Stuttgart

Program:

http://www.haw.uni-heidelberg.de/md/haw/akademie/einladung_auswaertige_sitzung.pdf

Further information on the Heidelberg Academy of Sciences:

<https://www.hadw-bw.de/>