ERS invites... Prof. Dr. Boris Martinac

3.5 Billion Years of Mechanotransduction: In the Beginning was the Touch

With this ERS invites... lecture, the Exploratory Research Space (ERS) at RWTH Aachen University would like to contribute to greater awareness of specialists and nonspecialists alike about the role that mechanical force plays in everyday life of all living organisms from bacteria to humans.

Mechanosensory Transduction

Mechanosensory Transduction an exciting growing area of research in Biology and Medicine that earned a half of the 2021 Nobel Prize for Physiology or Medicine, focuses on understanding how mechanical stimuli such as touch, pressure, and vibration are converted into electrical signals by the nervous system, helping to reveal the fundamental mechanisms behind how organisms perceive their physical environment.

Prof. Dr. Boris Martinac

Prof. Dr. Boris Martinac (Victor Chang Cardiac Research Institute and the University of New South Wales in Sydney, Australia), is one of the pioneers in the research area. In his lecture, Prof Martinac will provide an overview of the field from its early days up to the recent discoveries contributing to better understanding of mechanosensory transduction in health and disease.

The focus of his lecture is the structure and function of mechanosensitive channels, the protein molecules present in cell membranes of living organisms. These proteins act as primary receptors of mechanical stimuli activating numerous intracellular signaling pathways controlling cellular gene expression that allow cells to respond and adapt to environmental mechanical stimuli such as touch, sound, stretch, osmotic pressure and alike.

18th November 2024, 15:30 to 17:00

Super C | Generali Saal
Templergraben 57
52062 Aachen

Please register here:

https://www.rwth-aachen.de/cms/root/forschung/angebote-fuer-forschende/ers-angebote/aktuelle-veranstaltungen/~qwbt/einzelansicht/?file=5-61543&lidx=1

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Organisational Contact:
Iris Schümmer
Tel.: 0241 80 20734
iris.schuemmer@zhv.rwth-aachen.de