

Functional regulation of Kv2 and KCNQ1 voltage-gated potassium channels by intracellular divalent cations (extension)

Initiative: Zwischen Europa und Orient - Mittelasien/Kaukasus im Fokus der Wissenschaft

Ausschreibung: Ausschreibung: Strukturell orientierte Maßnahmen

Bewilligung: 19.12.2016

Laufzeit: 3 Jahre

During the last three years a modern molecular neuroscience laboratory has been established in Yerevan which shall contribute to the development of the field of Neuroscience in Armenia and help young people to start their scientific carrier. Several collaborative projects have been initiated with local and international laboratories. In order to maintain the current level of the lab in the future and to further strengthen links with German partners the following studies shall be conducted: 1) Investigation of KCNQ1 channel modulation via allosteric factor Ca^{2+} and physiological relevance of this modulation, with a particular focus on calmodulin as a putative mediator for allosteric regulation. 2) Analysis of the functional role of the zinc-finger domain in Kv2 channel gating and neuronal excitability. 3) Investigation of the influence of extracellular K^{+} on KCNQ1 channel complexes and the molecular mechanism underlying it.

Projektbeteiligte

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