



GNB1 ENCEPHALOPATHY, GIRK K⁺ CHANNELS, AND GIRK BLOCKERS AND OPENERS AS POTENTIAL THERAPIES

GUEST LECTURE by

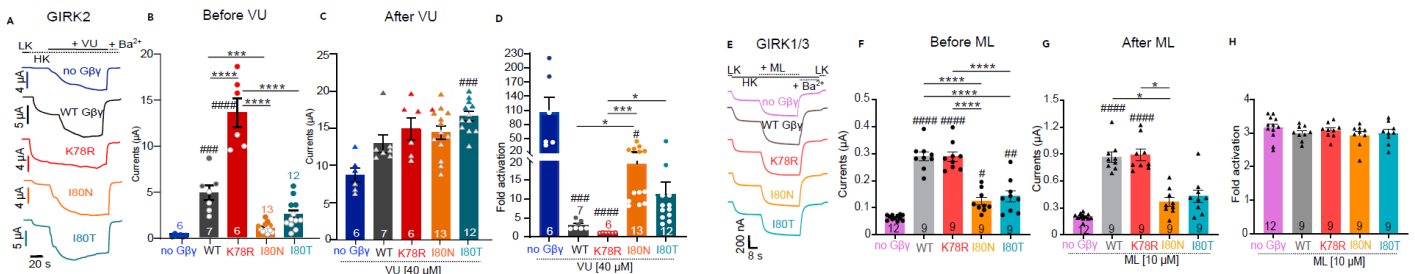


Prof. Nathan Dascal, PhD

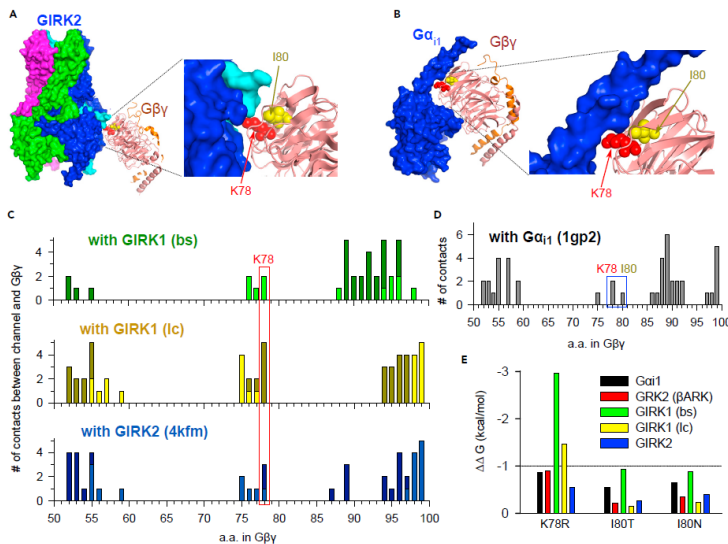
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Thursday, 22.09.2022, 11:00

MC1.G.01.005 (Seminar room 01 - Applied
Biomedicine; MED Campus, tract G, 1st floor)



Rescue of GIRK channel activity by VU0529331 and ML297 in the presence of LoF mutants I80N and I80T.



Structural analysis of GIRK-Gβγ interaction.

	Gβ1 WT vs mutants		
	Gβ1 WT	Gβ1 K78R	Gβ1 I80N & I80T
Gβ1 protein levels	RNA ↓ Gβ1 protein	Gain of Expression	Partial Loss of Expression
GIRK single channel activity	K ⁺	Partial Loss of Function	Loss of Function
Whole-cell GIRK currents		Gain of Function	Loss of Function
Rescue		GIRK inhibitors	GIRK activators

Encephalopathy-causing mutations in Gb1 (GNB1) alter regulation of neuronal GIRK channels.