

## List of Publications

### Peer-reviewed papers

- Rishal, I.**, Keren-Raifman, T., Yakubovich, D., Ivanina, T., Dessauer, C.W., Slepak, V.Z., and Dascal, N. (2003). Na<sup>+</sup> promotes the dissociation between G $\alpha_{GDP}$  and G $\beta\gamma$ , activating G-protein-gated K<sup>+</sup> channels. *J. Biol. Chem.* 278, 3840-3845.
- Ivanina, T., **Rishal, I.**, Varon, D., Müllner, C., Frohnwieser-Steinecke, B., Schreibmayer, W., Dessauer, C.W., and Dascal, N. (2003). Mapping the G $\beta\gamma$ -binding sites in GIRK1 and GIRK2 subunits of the G protein-activated K<sup>+</sup> channel. *J. Biol. Chem.* 278, 29174-29183.
- Ivanina, T., Varon, D., Peleg, S., **Rishal, I.**, Porozov, Y., Dessauer, C.W., Keren-Raifman, T., Dascal, N. G $\alpha_{i1}$  and G $\alpha_{i3}$  differentially interact with, and regulate, the G protein-activated K<sup>+</sup> channel. (2004). *J. Biol. Chem.* 279, 17260-17268.
- Yakubovich, D., **Rishal, I.**, Dascal, N. Kinetic modeling of Na<sup>+</sup>-induced, G $\beta\gamma$ -dependent activation of G-protein-gated K<sup>+</sup> channels. (2005). *J. Mol. Neurosci.* 25, 7-20.
- Rishal, I.**, Porozov, Y., Yakubovich, D., Varon, D. and Dascal, N. (2005). G $\beta\gamma$ -dependent and G $\beta\gamma$ -independent basal activity in GIRK channels. *J. Biol. Chem.* 280, 16685-16694.
- Yakubovich, D., **Rishal, I.**, Dessauer, C.W., Dascal, N. (2009). Amplitude Histogram-Based Method of Analysis of Patch Clamp Recordings that Involve Extreme Changes in Channel Activity Levels. *J Mol Neurosci.* 37, 201-211.
- Rishal, I.**, Michaelevski, I., Rozenbaum, M., Shinder, V., Medzihradzky, K.F., Burlingame, A.L., Fainzilber, M. (2010): Axoplasm Isolation from Peripheral Nerve. *Developmental Neurobiology* 70, 126-133.
- Michaelevski I, Segal-Ruder Y, Rozenbaum M, Medzihradzky K.F, Shalem O, Coppola G, Horn-Saban S, Ben-Yaakov K, Dagan S.Y, **Rishal I**, Geshwind D.H, Pilpel Y, Burlingame A.L, & Fainzilber M. (2010): Signaling to Transcription Networks in the Neuronal Retrograde Injury response. *Science Signaling* 3, ra53.
- Rishal I**, Rozenbaum M, Fainzilber M. (2010): Axoplasm Isolation from rat sciatic nerve. *J Vis Exp.* 43, doi: 10.3791/2087.
- Banks GT, Haas MA, Line S, Shepherd HL, AlQatari M, Stewart S, **Rishal I**, Philpott A, Kalmar B, Kuta A, Groves M, Parkinson N, Acevedo-Arozena A, Brandner S, Greensmith L, Hafezparast M, Koltzenburg M, Deacon R, Fainzilber M, Fisher EMC (2011): Behavioural and other phenotypes in a cytoplasmic dynein light intermediate chain 1 mutant mouse. *J. Neurosci.* 31, 5483-94.
- Ben-Yaakov K, Dagan SY, Segal-Ruder Y, Shalem O, Vuppalachchi D, Willis DE, Yudin D, **Rishal I**, Rother F, Bader M, Blesch A, Pilpel Y, Twiss JL, Fainzilber M (2012): Axonal transcription factors signal retrogradely in lesioned peripheral nerve. *EMBO J.* 31, 1350-63.

**Rishal I\***, Kam N\*, Perry RB, Shinder V, Fisher EMC, Schiavo G, Fainzilber M (2012): A Motor Driven Mechanism for Cell-length Length Sensing. *Cell Reports* 1, 608-16.

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Perry RB, Doron-Mandel E, Iavnilovitch E, **Rishal I**, Dagan SY, Tsoory M, Coppola G, McDonald MK, Gomes C, Geschwind DH, Twiss JL, Yaron A, Fainzilber M (2012): Subcellular knockout of importin  $\beta$ 1 perturbs axonal retrograde signaling. *Neuron* 75, 294-305.

**Rishal I**, Golani O, Rajman M, Costa B, Ben-Yaakov K, Schoenmann Z, Yaron A, Basri R, Fainzilber M, Galun M (2013): WIS-Neuromath enables versatile high throughput analyses of neuronal processes. *Dev Neurobiol.* 73, 247-56.

Tselnicker IF, Tsemakhovich V, **Rishal I**, Kahanovitch U, Dessauer CW and Dascal N (2014): Dual regulation of G proteins and the G protein-activated K<sup>+</sup> channels by lithium. *Proc Natl Acad Sci U S A.* 111(13), 5018-23.

#### *Reviews*

**Rishal, I.**, Fainzilber, M. (2010): Retrograde signaling in axonal regeneration. *Experimental Neurology* 223, 5-10. Review.

Albus CA, **Rishal I**, Fainzilber M (2013): Cell length sensing for neuronal growth control. *Trends Cell Biol.*, 23(7):305-10. Review.

**Rishal I**, Fainzilber M (2014): Axon-soma communication in neuronal injury. *Nature Reviews Neuroscience*, invited review, 15(1):32-42.