

Andrew S. French - Publications

Refereed papers published or in press:

185. Saari, P., Immonen, E.V., Kemppainen, J., Heimonen, K., Zhukovskaya, M., Novikova, E., French, A.S., Torkkeli, P.H., Liu, H. and Frolov, R. (2018) Changes in electrophysiological properties of photoreceptors in *Periplaneta americana* associated with the loss of screening pigment. *Journal of Comparative Physiology* (in press).
184. Saari, P., Immonen, E.V., French, A.S. Torkkeli, P.H., Liu, H., Heimonen, K. and Frolov, R.V. (2018) Electrical interactions between photoreceptors in the compound eye of *Periplaneta americana*. *Journal of Experimental Biology* (in press).
183. Frolov, R., Immonen, E.V., Saari, P., Torkkeli, P.H., Liu, H. and French, A.S. (2018) Phenotypic plasticity in *Periplaneta americana* photoreceptors. *Journal of General Physiology* (in press).
182. Sukumar, V., Liu, H., Meisner, S., French, A.S. and Torkkeli, P.H. (2018) Multiple biogenic amine receptor types modulate spider, *Cupiennius salei*, mechanosensory neurons. *Frontiers in Physiology* **9**: 857. doi: 10.3389/fphys.2018.00857.
181. French, A.S. and Pfeiffer, K. (2018) Nonlinearization: Naturalistic stimulation reveals nonlinear dynamic behavior in a spider mechanoreceptor. *Biological Cybernetics* **112**: 403-413. doi: 10.1007/s00422-018-0763-0.
180. Ignatova, I., French, A.S. and Frolov, R. (2018) Effects of phase correlations in naturalistic stimuli on quantitative information coding by fly photoreceptors. *Journal of Neurophysiology* **119**: 2276-2290. doi: 10.1152/jn.00017.2018.
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178. Saari, P., French, A.S., Torkkeli, P.H., Liu, H., Immonen, E.V. and Frolov, R. (2017) Distinct roles of light-activated channels TRP and TRPL in photoreceptors of *Periplaneta americana*. *Journal of General Physiology* **149**: 455-464. doi: 10.1085/jgp.201611737.
177. Immonen, E.V., French, A.S., Torkkeli, P.H. Liu, H., Vähäsöyrinki, M. and Frolov, R.V. (2017) EAG channels expressed in microvillar photoreceptors are unsuited to diurnal vision. *Journal of Physiology* **595**: 5465-5479. doi: 10.1113/JP273612.

176. Liu, H., French, A.S. and Torkkeli, P.H. (2017) Expression of Cys-loop receptor subunits and acetylcholine binding protein in the mechanosensory neurons, glial cells and muscle of the spider *Cupiennius salei*. *Journal of Comparative Neurology* **525**: 1139-1154. doi: 10.1002/cne.24122.
175. French, A.S., Immonen, E.V. and Frolov, R.V. (2016) Static and dynamic adaptation of insect photoreceptor responses to naturalistic stimuli. *Frontiers in Physiology* **7**: 477. doi: 10.3389/fphys.2016.00477.
174. Pfeiffer, K. and French, A.S. (2015) Naturalistic stimulation changes the dynamic response of action potential encoding in a mechanoreceptor. *Frontiers in Physiology* **6**: 303. doi: 10.3389/fphys.2015.00303.
173. Torkkeli, P.H., Liu, H. and French, A.S. (2015) Transcriptome analysis of the central and peripheral nervous systems of the spider *Cupiennius salei* reveals multiple putative Cys-loop ligand gated ion channel subunits and an acetylcholine binding protein. *PLoS ONE*. doi: 10.1371/journal.pone.0138068.
172. French, A.S., Meisner, S., Liu, H., Weckström, M. and Torkkeli, P.H. (2015) Transcriptome analysis and RNA interference of cockroach phototransduction indicate three opsins and suggest a major role for TRPL channels. *Frontiers in Physiology* **6**: 207. doi: 10.3389/fphys.2015.00207.
171. French, A.S. and Torkkeli, P.H. (2015) Some recent advances in spider sensory physiology. *Physiology News* **99**: 34-37.
170. Ignatova, I., French, A.S., Frolov, R. and Weckström, M. (2014) Equilibrating errors: reliable estimation of information transmission rates in biological systems. *Biological Cybernetics* **108**: 305-320.
169. French, A.S., Li, A.W., Meisner, S. and Torkkeli, P.H. (2014) Upstream open reading frames and Kozak regions of a set of assembled transcriptome sequences from the spider *Cupiennius salei*. *Gene* **539**: 203–208.
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167. French, A.S. (2012) Transcriptome walking: A laboratory-oriented GUI-based approach to mRNA identification from deep-sequenced data. *BMC Research Notes* **5**:673-680

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