

Novel findings shed light on how N-type channel function is modified by lipids

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The November 2009 issue of the *Journal of General Physiology* (JGP) contains two papers by the Rittenhouse laboratory that describe novel findings on how N-type voltage-gated calcium channel (VGCC) function is modified by lipids.

In a commentary accompanying the manuscripts, Jörg Striessnig (University of Innsbruck) provides context for the importance of the new Rittenhouse studies, which support one of two distinct hypotheses on modulation of VGCCs that have been pitted in an "oily competition": the "PIP2 breakdown" vs. "ArA generation" hypotheses.

According to Striessnig, although the new findings support the "ArA generation" hypothesis, previous experimental evidence supporting the "PIP2 breakdown" model are valid, and he proposes a unifying hypothesis that could serve as a basis for further experiments.

More information:

- Heneghan, J.F., et al. 2009. J. Gen. Physiol. [doi:10.1085/jgp.2009102](https://doi.org/10.1085/jgp.2009102)
[doi:10.1085/jgp.200910330](https://doi.org/10.1085/jgp.200910330)
- Ganguli, T., et al. 2009. J. Gen. Physiol. [doi:10.1085/jgp.200910204](https://doi.org/10.1085/jgp.200910204)
- Striessnig, J. J. Gen. Physiol. [doi:10.1085/jgp.200910330](https://doi.org/10.1085/jgp.200910330)

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