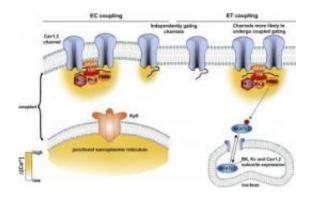


New perspectives on local calcium signaling

July 26 2010



A schematic model for the local control of EC coupling and ET coupling in nerve and muscle is part of the Perspectives on Local Calcium Signaling in the August issue of the *Journal of General Physiology*. Credit: Santana, L.F., and M.F. Navedo. 2010. J. Gen. Physiol. doi:10.1085/jgp.200910391.

The latest Perspectives in General Physiology series introduces the newest technologies in the field of calcium signaling, which plays a central role in many cellular processes. The Perspectives appear in the August issue of the *Journal of General Physiology*.

A revolution in measuring Ca2+ signals has taken place over the last decade, benefiting from advances in microscopy, buffers/dyes, and other technologies. This means researchers now have the tools to answer questions about how fast signals initiate, what terminates them, how quickly they terminate, how far they spread, how many channels it takes to kick off a signaling event, and many other questions that classical techniques simply couldn't answer. In addition to introducing the new



tools, the authors apply these technologies to muscle and nerve cell Ca2+channel.

The Perspectives are introduced by their organizer, Sharona Gordon (University of Washington), and include contributions from Mark Nelson (University of Vermont, University of Manchester) and colleagues; Ian Parker and Ian Smith (University of California, Irvine); W.J. Lederer (University of Maryland) and colleagues; Luis Santana and Manuel Navedo (University of Washington); and Heping Cheng (Peking University) and colleagues.

The purpose of the *Perspectives in General Physiology* series is to provide an ongoing forum where scientific questions or controversies can be discussed by experts in an open manner.

More information:

Gordon, S.E. 2010. J. Gen. Physiol. doi:10.1085/jgp.201010491

Hill-Eubanks, D.C., et al. 2010. J. Gen. Physiol.

doi:10.1085/jgp.201010402

Parker, I., and I.F. Smith. 2010. J. Gen. Physiol.

doi:10.1085/jgp.200910390

Prosser, B.L., et al. 2010. J. Gen. Physiol. doi:10.1085/jgp.201010406

Santana, L.F., and M.F. Navedo. 2010. J. Gen. Physiol.

doi:10.1085/jgp.200910391

Xie, W., et al. 2010. J. Gen. Physiol. doi:10.1085/jgp.201010416

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