

## RESEARCH NEWS

- e202113031 **Distinct roles for Cav1.1's voltage-sensing domains**  
Ben Short

## TUTORIAL

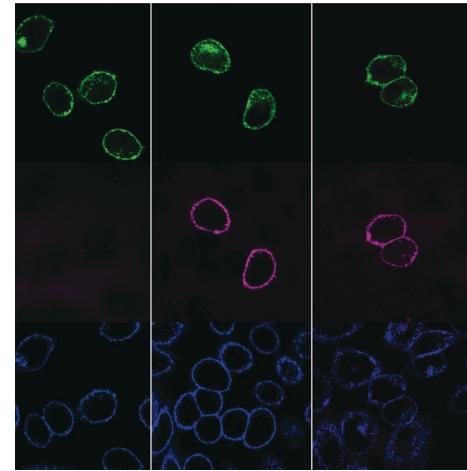
- e201711954 **Protein functional dynamics from the rigorous global analysis of DEER data: Conditions, components, and conformations**  
Eric J. Hustedt, Richard A. Stein, and Hassane S. Mchaourab

## VIEWPOINT

- e202112896 **Myosin motors that cannot bind actin leave their folded OFF state on activation of skeletal muscle**  
Massimo Reconditi, Elisabetta Brunello, Luca Fusi, Marco Linari, Vincenzo Lombardi, Malcolm Irving, and Gabriella Piazzesi

## ARTICLES

- e202112915 **The distinct role of the four voltage sensors of the skeletal Cav1.1 channel in voltage-dependent activation**  
Nicoletta Savalli, Marina Angelini, Federica Steccanella, Julian Wier, Fenfen Wu, Marbella Quinonez, Marino DiFranco, Alan Neely, Stephen C. Cannon, and Riccardo Olcese
- e202112946 **Gating pore currents occur in Cav1.1 domain III mutants associated with HypoPP**  
Fenfen Wu, Marbella Quinonez, and Stephen C. Cannon
- e202012858 **EVAP: A two-photon imaging tool to study conformational changes in endogenous Kv2 channels in live tissues**  
Parashar Thapa, Robert Stewart, Rebecka J. Sepela, Oscar Vivas, Laxmi K. Parajuli, Mark Lillya, Sebastian Fletcher-Taylor, Bruce E. Cohen, Karen Zito, and Jon T. Sack
- e202012860 **Synchrony of sarcomeric movement regulates left ventricular pump function in the *in vivo* beating mouse heart**  
Fuyu Kobirumaki-Shimozawa, Togo Shimozawa, Kotaro Oyama, Shunsuke Baba, Jia Li, Tomohiro Nakanishi, Takako Terui, William E. Louch, Shin'ichi Ishiwata, and Norio Fukuda



## ON THE COVER

An endogenous voltage-sensor activity probe, or EVAP, is able to selectively image the location and activation status of native K<sup>+</sup> channels. EVAPs are comprised of a fluorescently labeled tarantula toxin (magenta) that binds voltage sensors of the potassium channel Kv2.1 (green, right) or Kv2.2 (center), but not Kv4.2 (left) when they are expressed at the surface membrane (blue).

Image © Thapa et al., 2021. See <http://doi.org/10.1085/jgp.202012858>