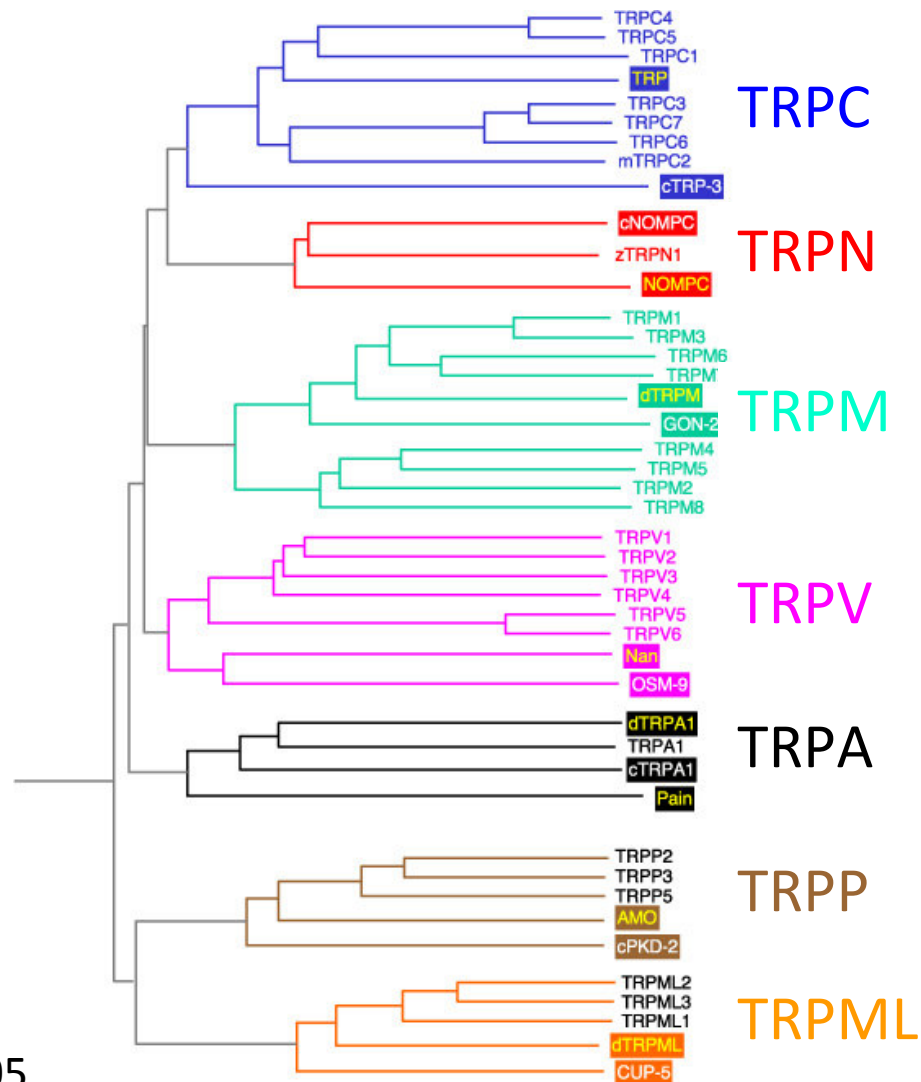
A photograph of the University of Washington campus at sunset. The sky is a gradient of blue and orange. Silhouettes of buildings and trees are visible against the bright sky. A mountain peak is visible in the distance.

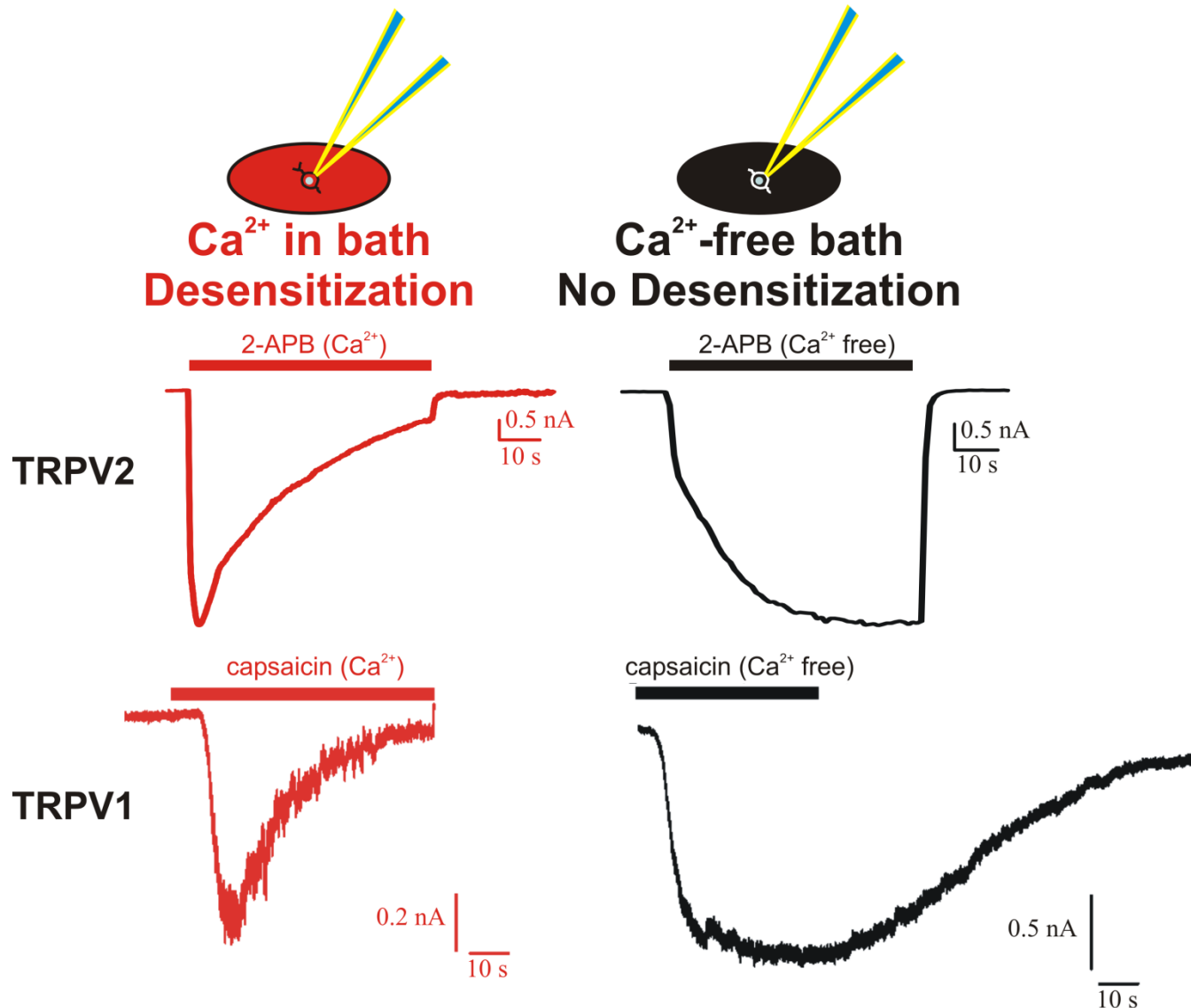
Mechanism of PIP2 modulation of TRPV1

Sharona E. Gordon
University of Washington
Seattle

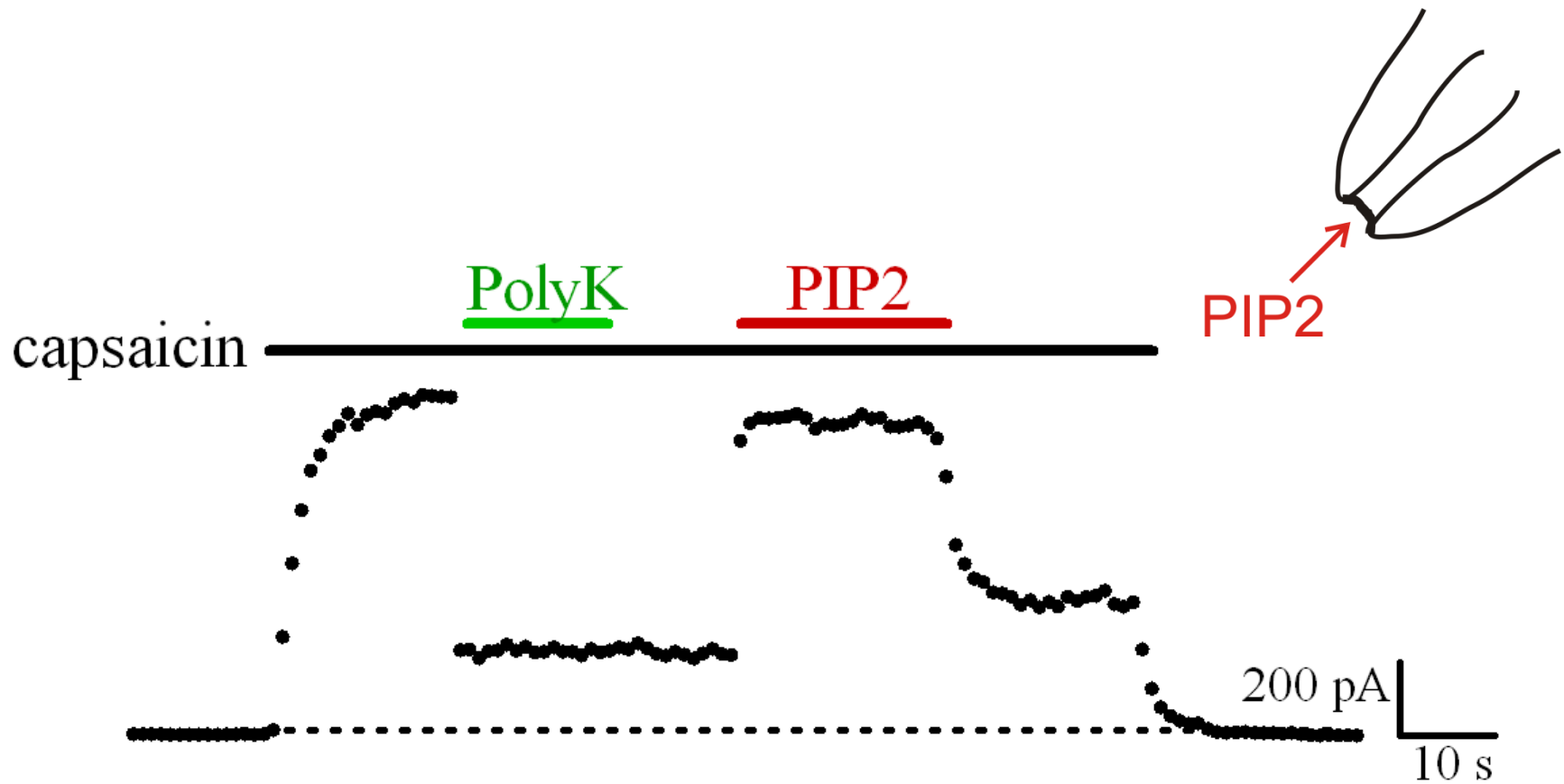
TRP Superfamily of Ion Channels



Ca²⁺-dependent Desensitization



PIP2 potentiates TRPV1



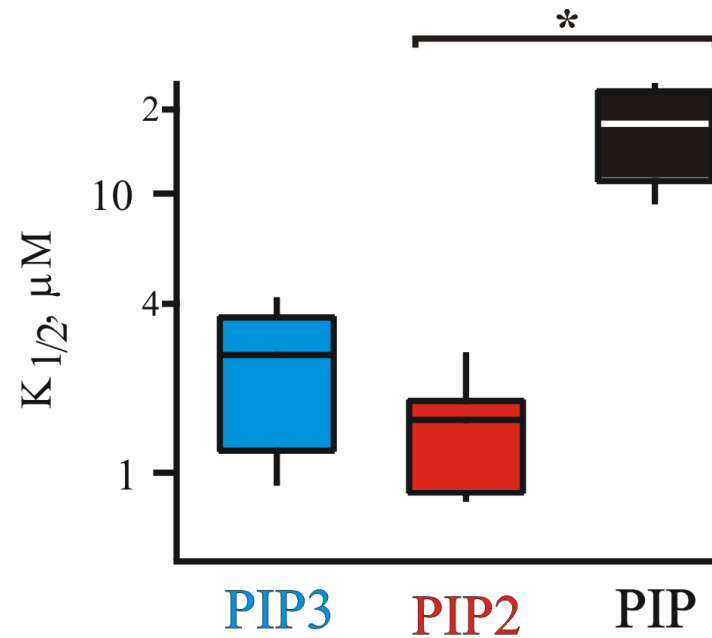
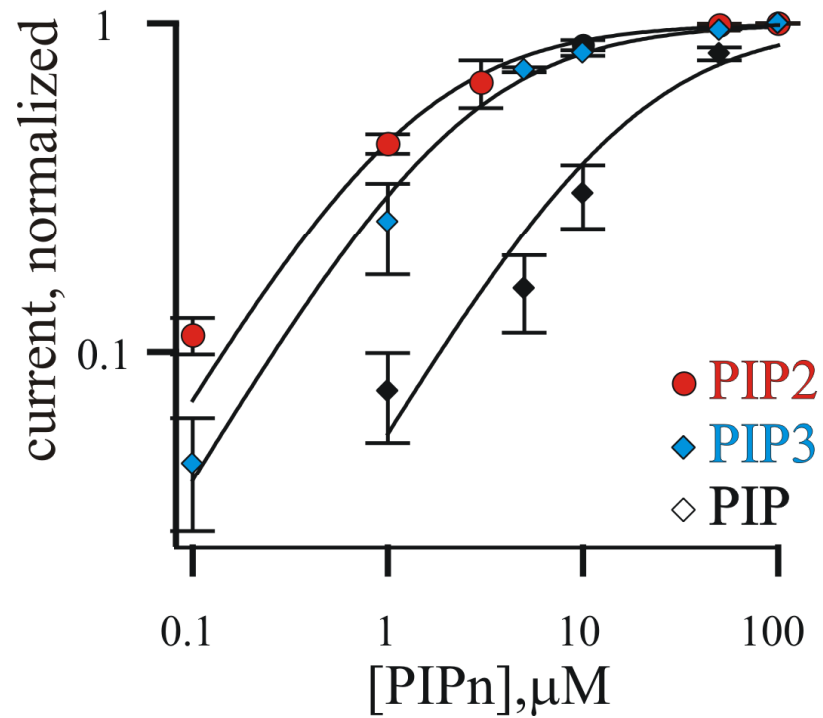
Which Phosphoinositide Regulates TRPV1 *in vivo*?

PI(4)P

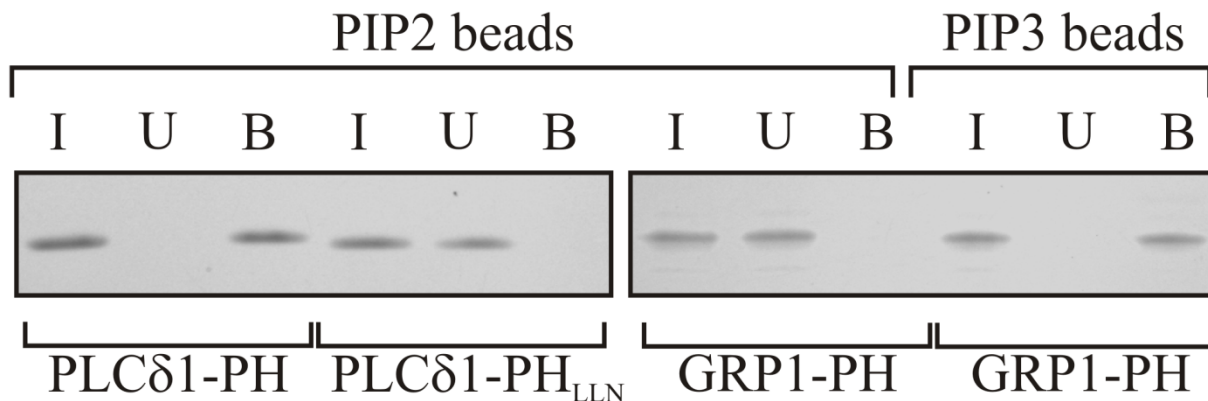
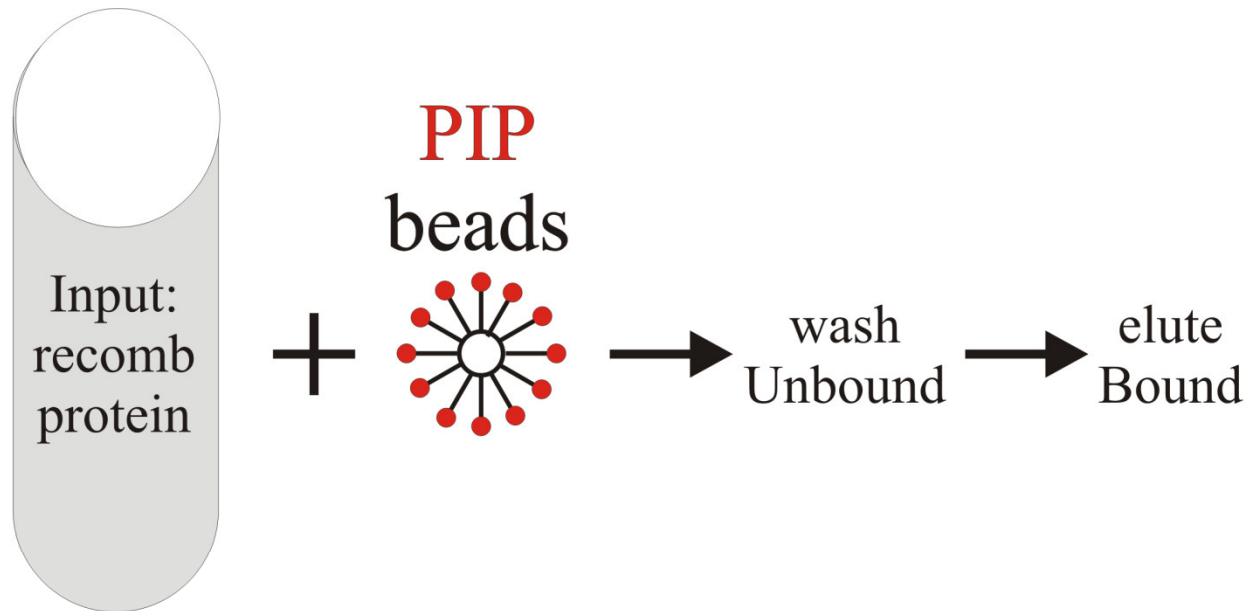
PIP2

PIP3

Channel modulation can be relatively nonspecific

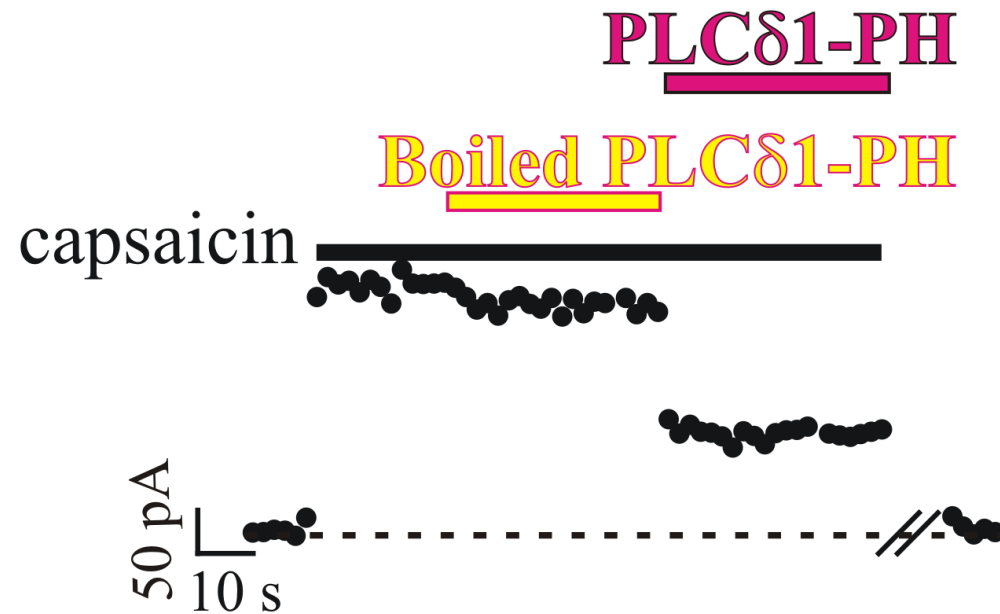


PH domains are a useful tool in PIP discrimination

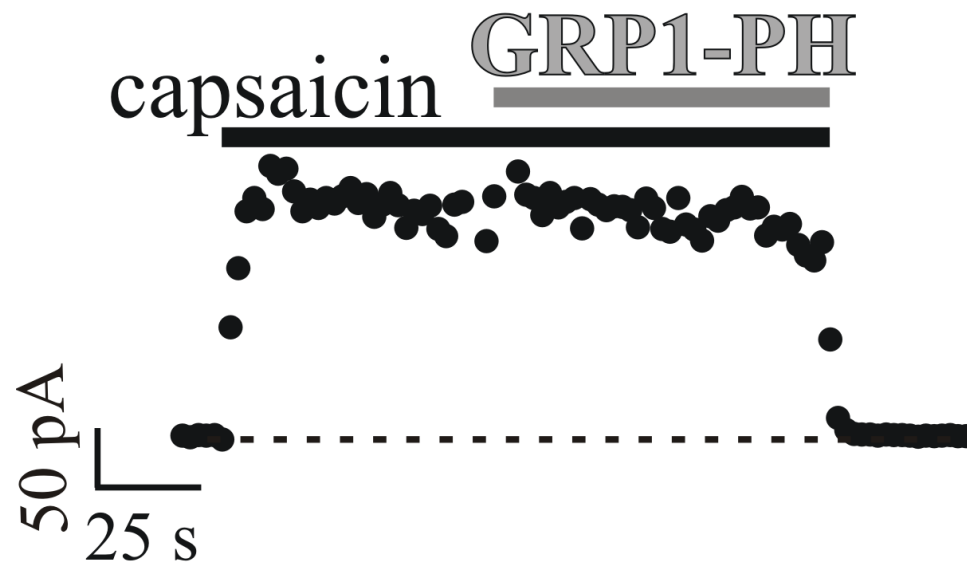


Li Hua &
Becky Klein

PIP2-specific PH domain inhibits TRPV1

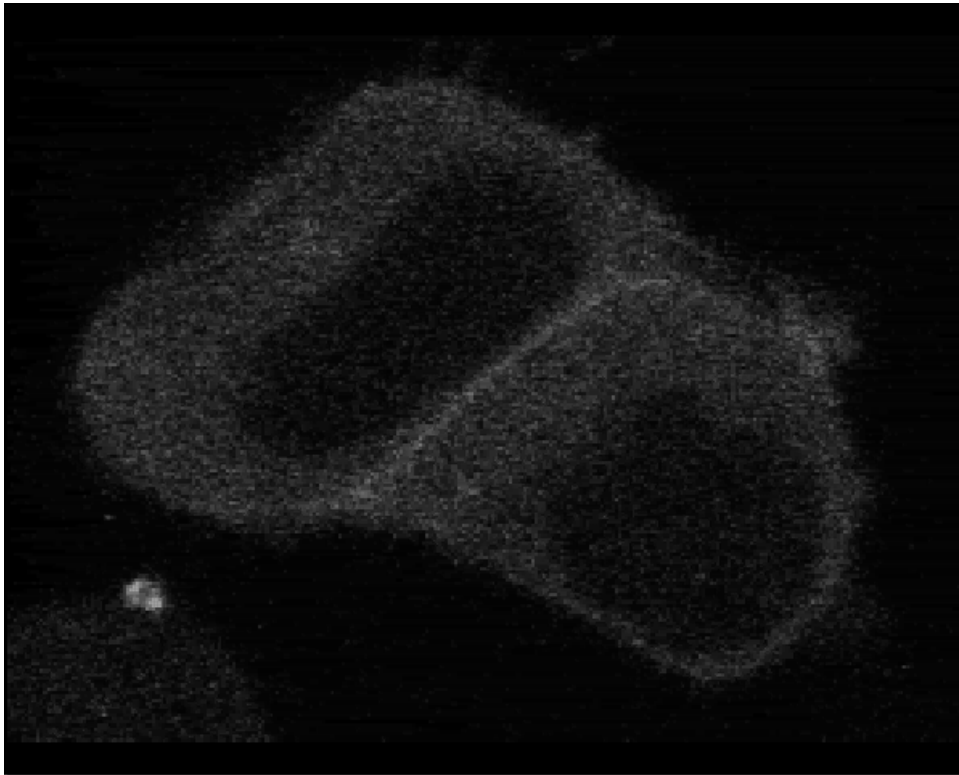


GRP1 PH domain does not inhibit TRPV1

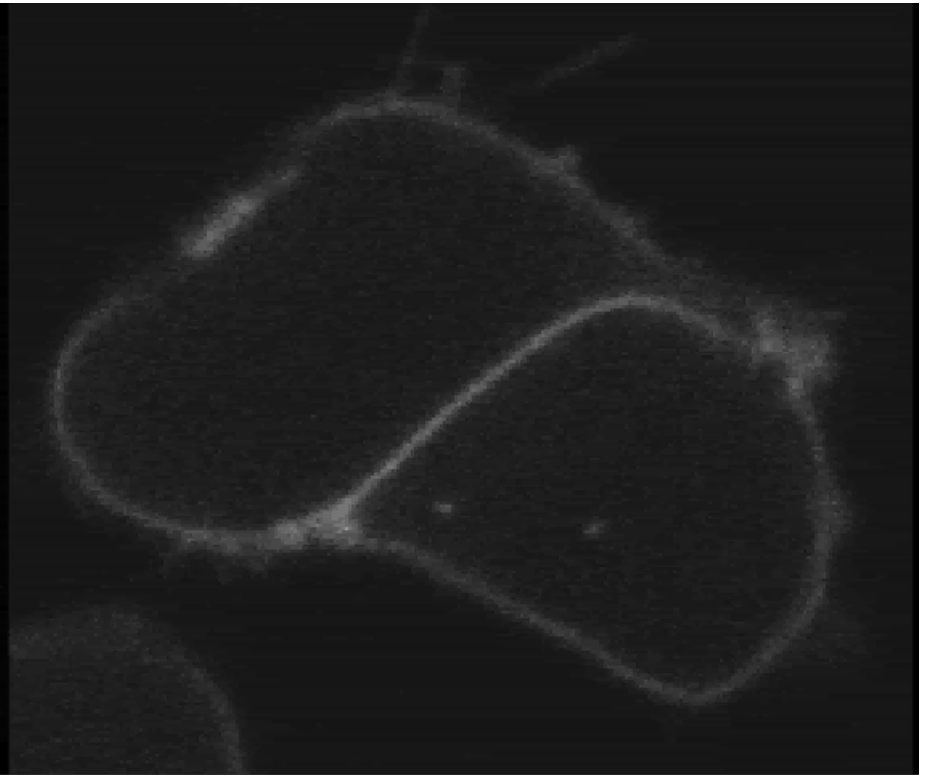


Is PIP2 Degradation Sufficient to
Inhibit TRPV1?

Rapamycin Leads to PIP2 Degradation

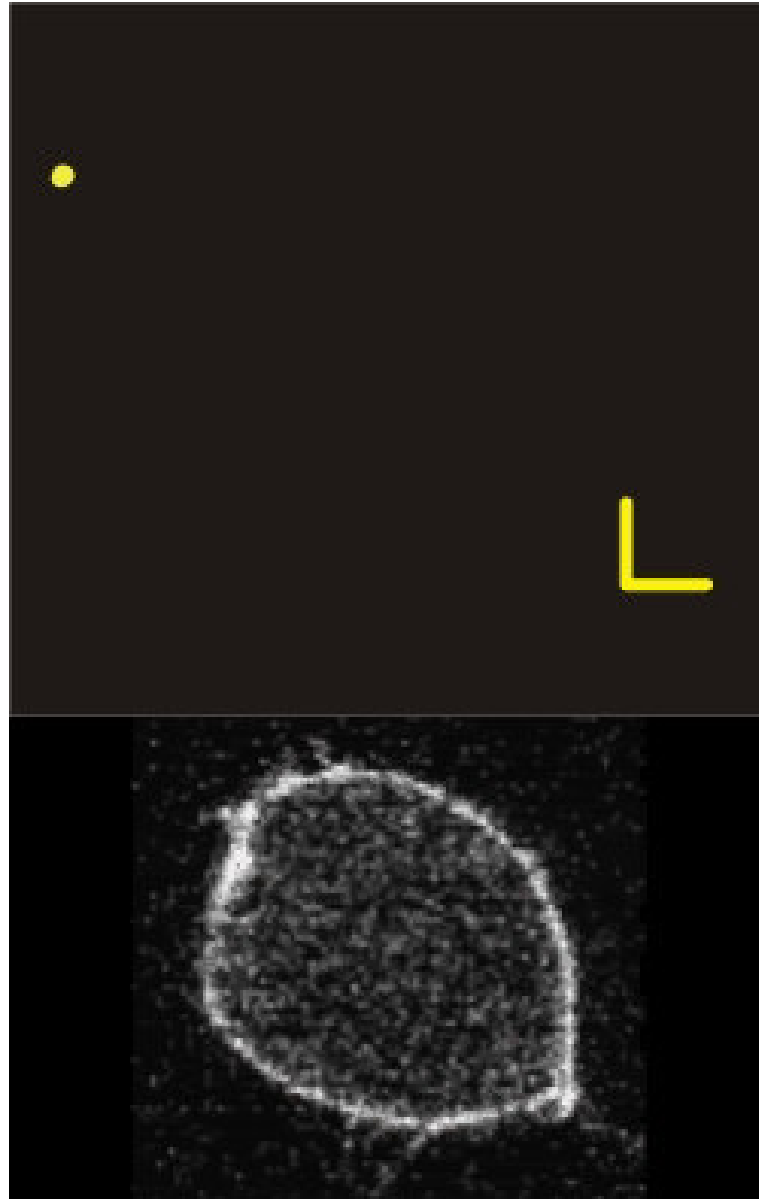


CFP-FKBP-Ins-5P

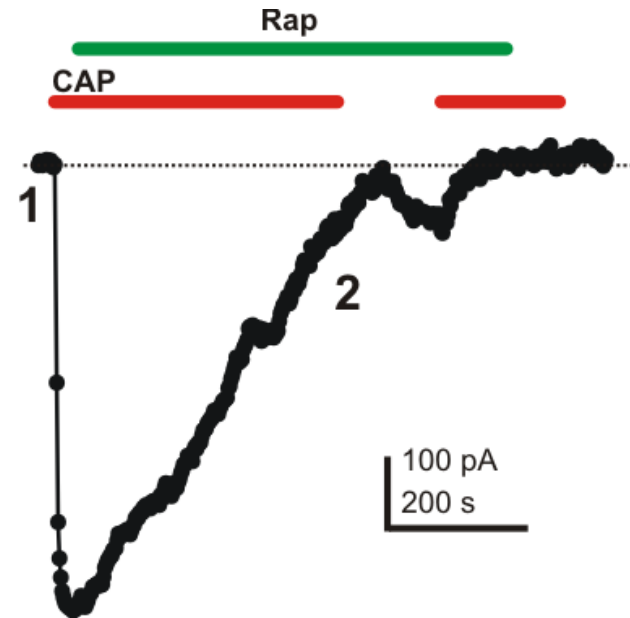
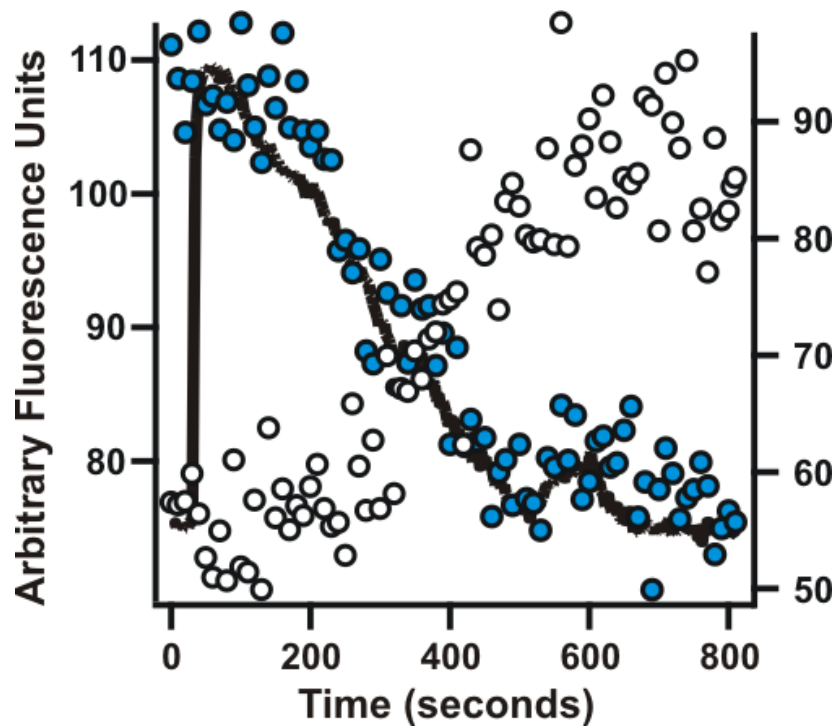
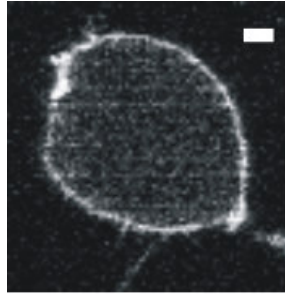


YFP-PLCδ1-PH

PIP2 degradation leads to TRPV1 inhibition



PIP2 degradation leads to TRPV1 inhibition



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