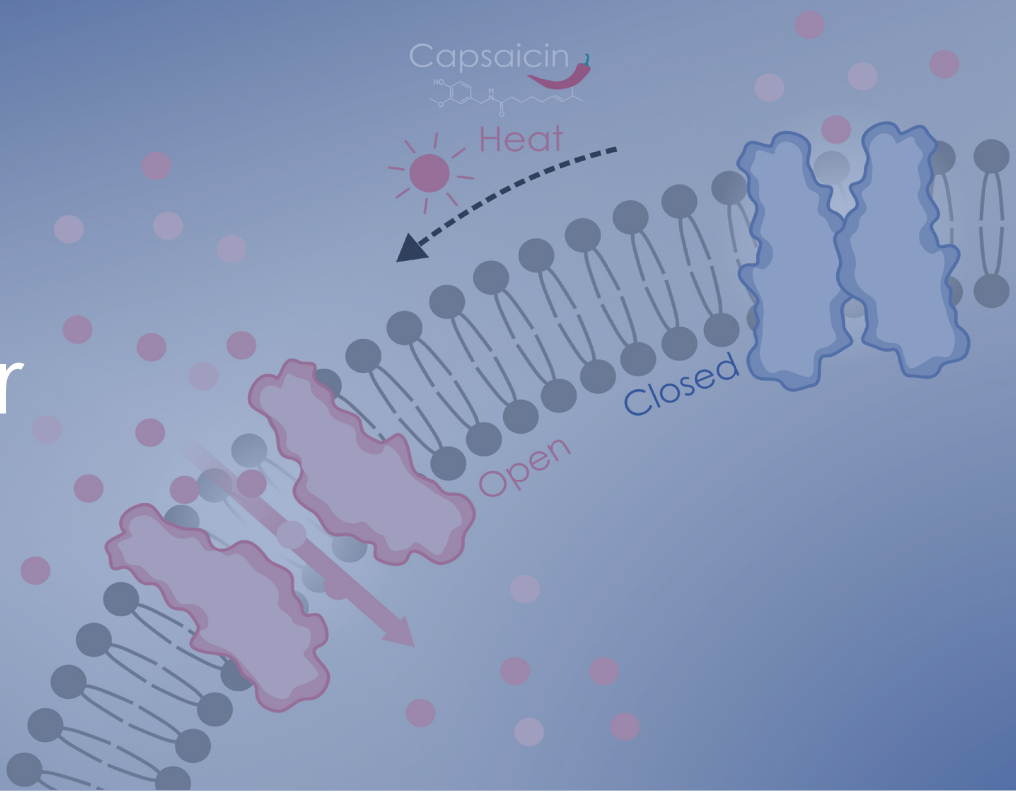
TRPV1
Patchliner

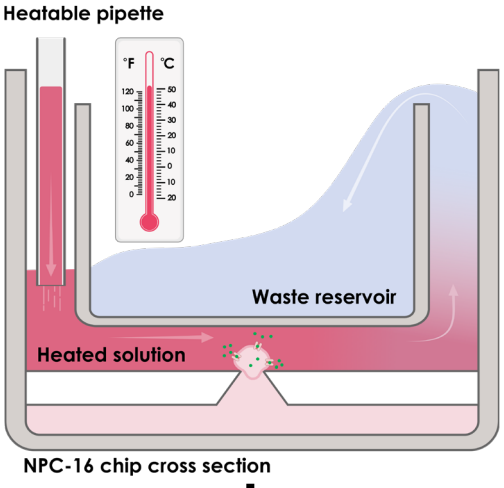


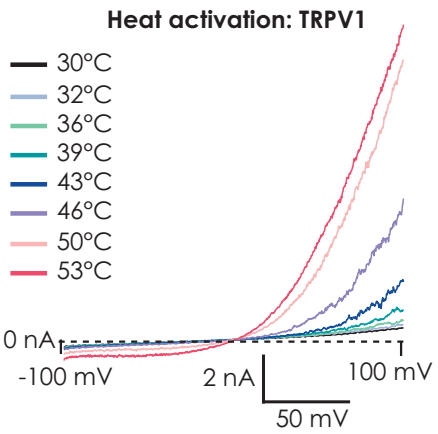
Heat activation of TRPV1 on the Patchliner

TRPV1 is a ligand-gated, non-selective cation channel widely expressed in the peripheral and central nervous system. It is activated by capsaicin (the active ingredient in chili peppers) but also noxious heat (typically >42˚C) and low pH. This channel is proposed to underlie many chronic pain states including inflammation and neuropathic pain, and could be a novel target for pain management. So far, TRPV1 antagonists have failed in clinical trials due to an undesirable increase in core body temperature resulting in hyperthermia. Finding novel compounds with differing effects on capsaicin versus heat activation may be crucial in the discovery of lead compounds for the treatment of pain.

Nanion's Patchliner enables unique experiments with heat activation of TRPV1 because of its sophisticated temperature control.

Contact us today





nanion

Patchliner
Electrophysiology in the fast lane

Unique heat activation

- Transient heat application
- Large temperature range - set temperature from RT up to 75°C
- Fully adjustable speed of addition up to 857 µl/s

Research and drug discovery

- Record ligand- and heat-activated responses in the same cell
- Minimized cell usage
- Low compound volume
- High compound storage flexibility
- Cell lines, primary cells and stem cells

Features

- Set chip wagon, measurehead and pipette temperature separately for more flexibility
- Voltage-, ligand- and heat-activated ion channels
- Mechanical stimulation
- Integrate voltage protocol and solution addition

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