

# nVue™ System

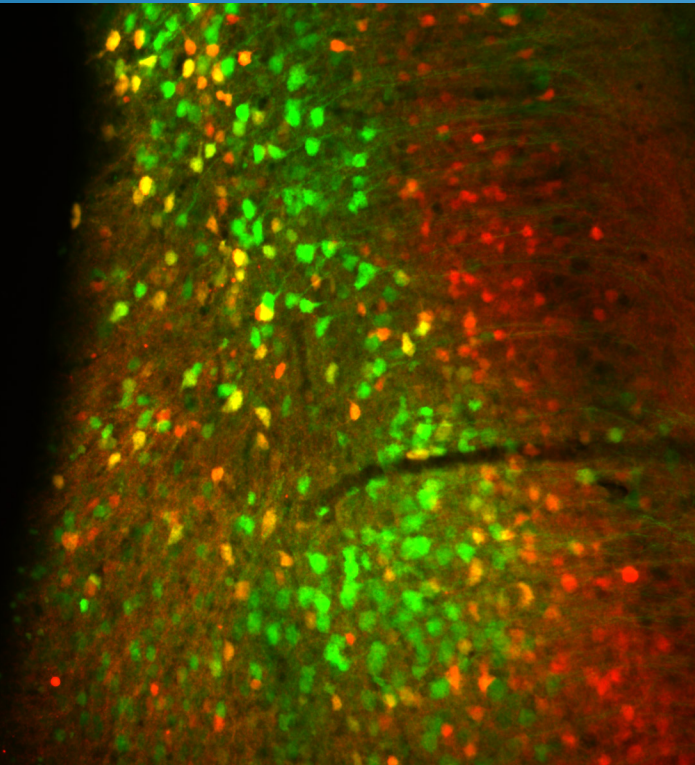
## Dual color miniscope imaging during free behavior

### Key benefits

Image two distinct cellular populations from shallow or deep brain regions simultaneously with single-cell resolution

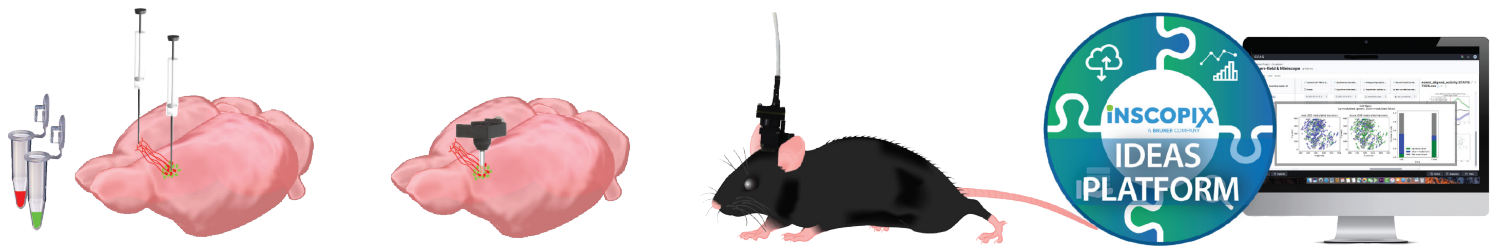
Explore the relationship of up to two brain signals during naturalistic behavior

Record multi-channel data using nVue's expanded data storage, facilitating longitudinal data acquisition over months



## The Inscopix nVue system enables simultaneous dual color imaging of calcium activity in two distinct cell populations

Our flagship miniscope platform innovation enables data collection and registration of two signals, either calcium ( $\text{Ca}^{2+}$ ) events, blood flow, or genetically-encoded neurotransmitter sensors in freely-behaving animals, providing insights into neural circuit function and behavior. The application shown here is one of several approaches to express, visualize, record, and analyze two signals within the same field of view.



### Inject

Ready-to-Image Virus, optimized for consistent, dynamic GCaMP expression, plus express your static or dynamic (red) indicator of choice

### Implant

ProView™ DC Integrated Lens

### Attach & Image

Calcium activity from two different cell populations or signals during free behavior

### Process and Analyze

Imaging data from two signals with intuitive software using IDPS and IDEAS

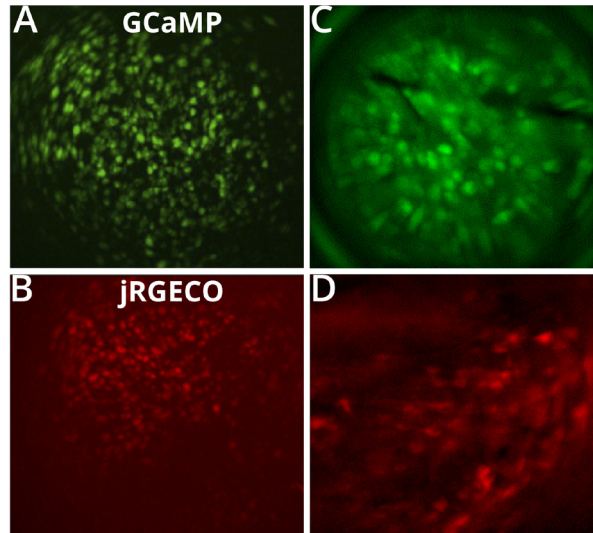
# A modular approach to miniscope imaging

The nVue platform is the first Inscopix miniscope available in two configurations.



## The nVue Camera Module

The nVue camera is optimized for shallow and deeper brain imaging and compatible with the ProView Integrated GRIN lenses for easier implants and optimal working distance.

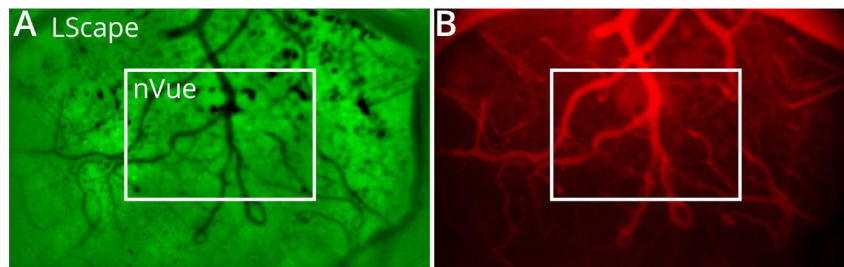


**A,B.** Maximum intensity projection of 20 min recording in the dorsal hippocampus using a ProView Integrated GRIN lens (1x4 mm) with combined viral strategy using GCaMP and jRGECO. **C.** Basal amygdala imaging using a ProView Integrated GRIN Lens (0.6x7.3 mm) and GCaMP6f. **D.** Prefrontal cortex imaging using a ProView Integrated GRIN Lens (1x4 mm) and jRGECO indicator.



## The nVue LScape Camera Module

The LScape module was developed for blood flow applications and is compatible with cranial windows, allowing more than double the field of view and a longer working distance all while preserving cellular resolution.



**Imaging with the LScape module** (full images) allows for a larger field of view to be captured when compared with the nVue camera (white insert). **A.** Representative image acquired through a cranial window, where neurons are labelled with GCaMP6f. **B.** Using the same preparation, image shows local vasculature in red after i.v. injection of Texas Red dextran dye.

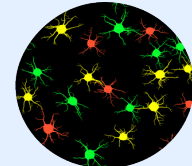
\*Images courtesy of the De La Prida Lab, at the Cajal Institute of Madrid, Spain, the Knight Lab, at UCSF, CA, and the Inscopix Discovery Lab, in Mountain View, CA.

# Inscopix nVue System

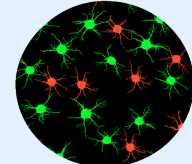


## Applications

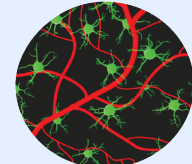
### Static + Dynamic



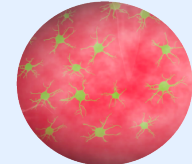
### Dual Dynamic



### Blood Flow



### Neurotransmitters



- dynamic indicator
- static or dynamic indicator
- cells co-expressing GCaMP + static indicator
- blood vessel dynamics

## Our Solution

- Biological reagents & accessories
- Cutting-edge instrumentation
- Powerful data processing
- Expert scientific support