



**neuroscience**  
BIOLOGICAL OPTICAL IMAGING



# CHROMATONE

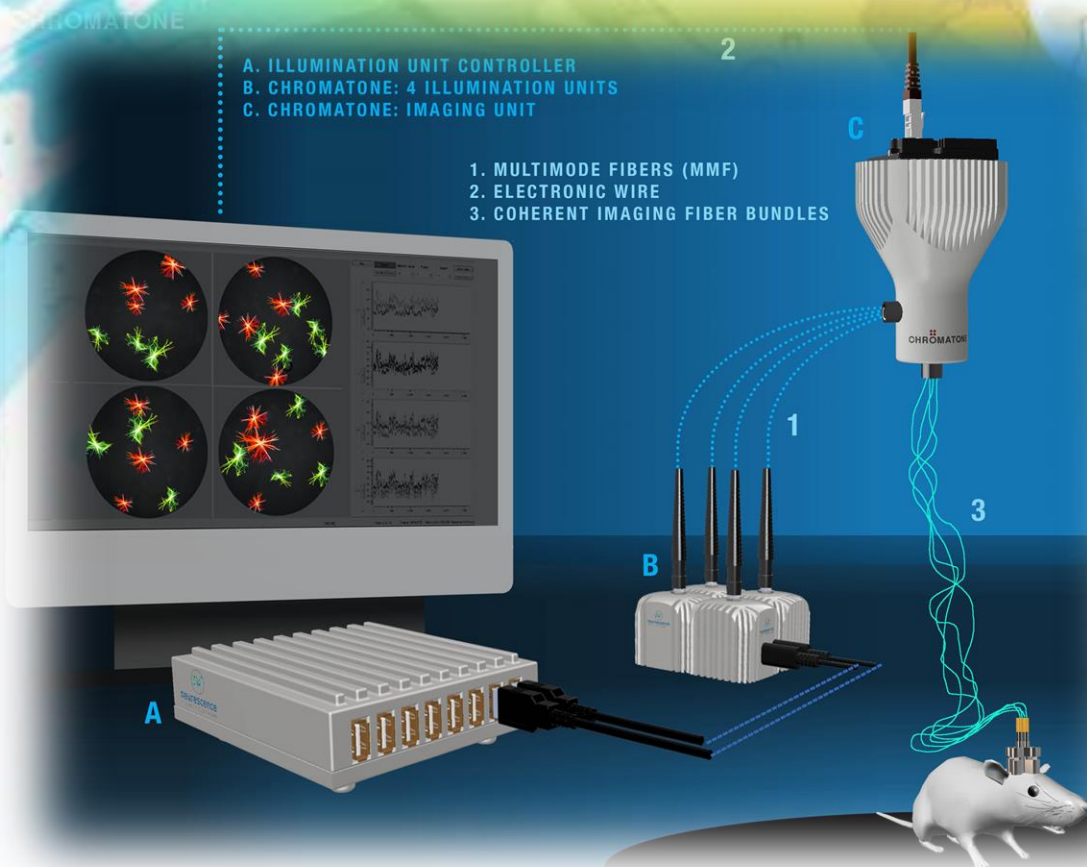
Simultaneous Multi color Multi Region Functional  
Imaging Of Neuronal Activity In Freely Behaving Animals



We offer...

# optogenetic modulation and functional imaging

of neuronal circuits.



- Chromatone® is a multiscope™ for simultaneous multiregion and multi-color stimulation and imaging of neurons in freely behaving animals and data collection software package.
- Services included: hands-on-surgical training, neuronal trace extraction support and device synchronization with other behavior equipments.

# QUARTET ON STEROIDS...

- Simultaneously image and modulate neuronal activity in four areas of brain or spinal cord.
- GCaMP, tdTomato imaging and ChrimsonR optogenetic stimulation.
- Each color can be controlled to be emitted as a continuous wave for imaging and as pulses with various duty cycles for optogenetic stimulation.
- Emitting power level for each wavelength can be independently controlled in each fiber.
- Enables the simultaneous recording of neurons at cellular resolution.





# TECHNICAL SPECIFICATIONS

Illumination colors in each fiber	470 +/- 12nm (GCaMP) 550 +/- 7.5nm (tdTomato) 632+/-14nm (ChrimsonR Optogenetics)
Illumination power range at tissue	470nm: 0 to 1 mW 550nm: 0 to 0.5mW 632nm: 0 to 5mW
Illumination mode for each wavelength	CW or Pulsed, protocol is independently set by user
Optical Resolution	7 $\mu$ m
Focusing Range or Working Distance	250 $\mu$ m in brain tissue



CHROMATONE

