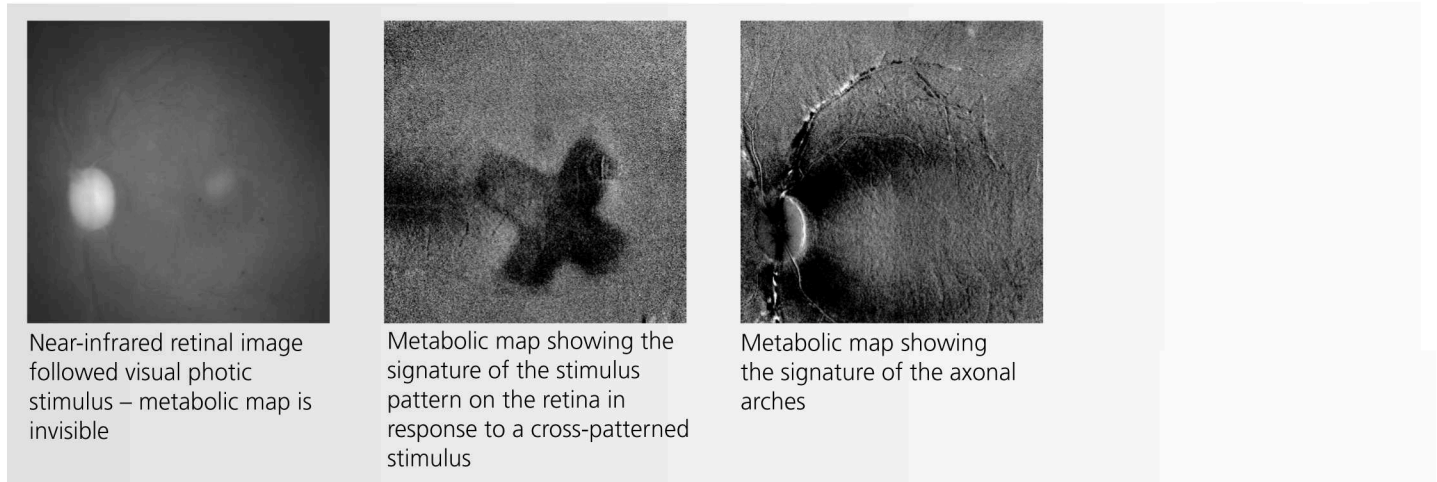


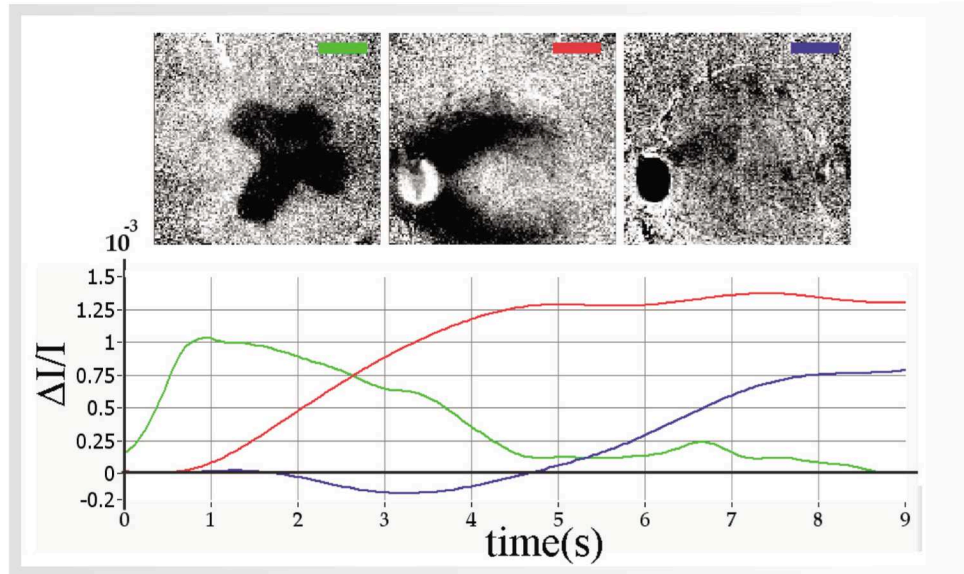
Metabolic Functional Imaging

Retinal reflectance changes in response to photic stimulation carry information about metabolic processes underlying light responses in the retina. The RFI is capable of imaging under near-infrared light, outside the absorption range of the photoreceptors, and can be used to optically monitor retinal activity in response to a well-defined visual stimulus. The difference between the post-stimulated images and the pre-stimulated images is used to determine the metabolic state of retinal components.

Exploring retinal imaging of anesthetized macaque monkey in vivo in response to a photic stimulus pattern, the RFI reveals a metabolic signature map directly corresponding to the stimulus pattern.



The RFI can reveal the exact time course of the three different metabolic signals. Fast- and slow- time course signals are distinguishable.



The RFI's stimulus module option allows additional imaging modes in functional imaging:

- Imaging blood flow changes under photic activation
- Imaging blood volume changes under photic activation
- Imaging oximetric changes under photic activation