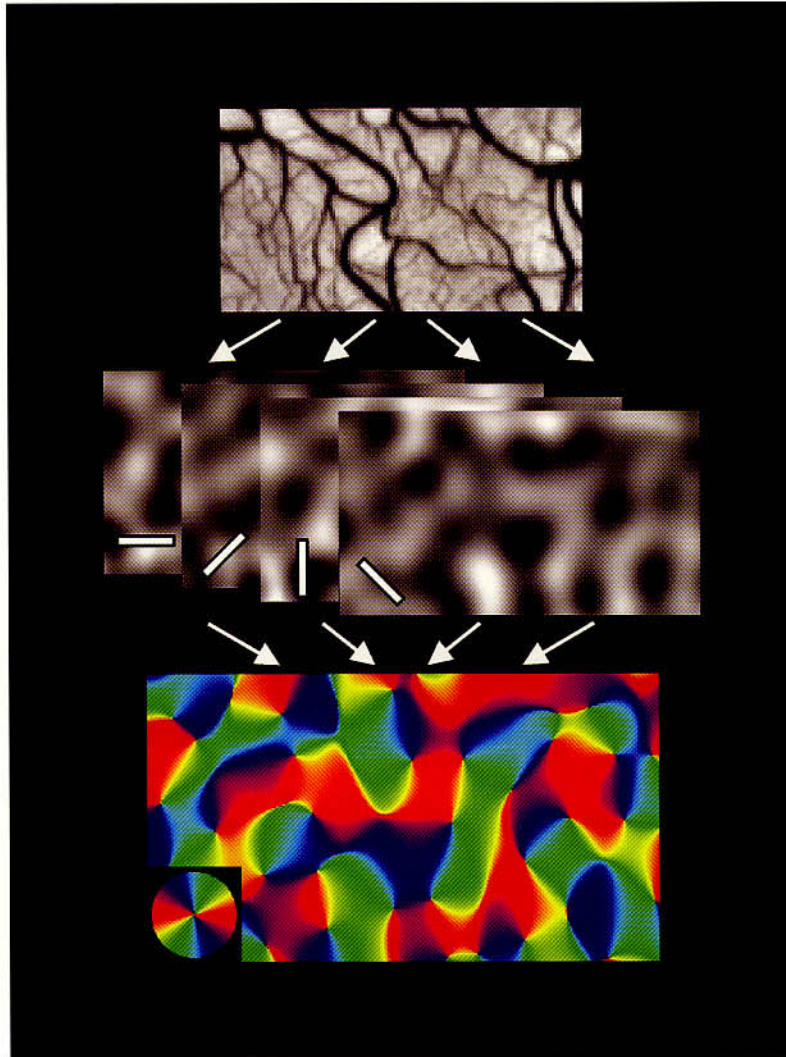


## Results of an optical imaging experiment

**Optical Imaging is a method for measuring the activity of nerve networks in the living brain. The NVRI is participating in a collaborative venture to establish the optical imaging method in the Melbourne Optometry Complex.**



In a collaborative project with Associate Professor Vidyasagar and Dr Andrew Metha of the Department of Optometry and Vision Sciences, The University of Melbourne, the NVRI was part of a successful bid to acquire a functional optical imaging system with the support of the Australian Research Council (ARC).

The figure shows the functional properties of visual cortex, in an anaesthetised cat, measured using optical imaging of intrinsic signals. The visual system was activated using high-contrast gratings of different orientations. The cortical surface (upper panel) was illuminated with light of 609 nm wavelength. The activation evoked by each stimulus orientation is revealed (dark patches in the centre panels) in the reflectance profile measured by a very sensitive camera. These images are combined in the lower panel, where the color of each pixel corresponds to the preferred orientation of the underlying location in cortex. Images by P. Buzas.