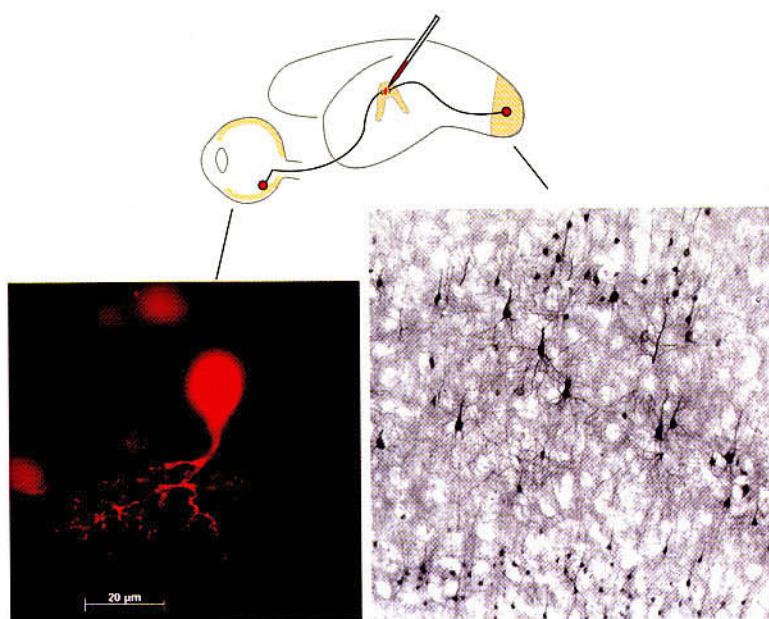


Tracing brain pathways for vision

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Ulrike Grünert and Brett Szmajda analysing data



Retrograde labelling is one of the most important methods for discovering the "wiring diagram" of the brain. A small amount of tracer dye is injected into the brain region of interest. The dye is taken up by the neurones, which have connections to the site of injection, and after histological processing the dye can be visualised using fluorescence microscopy or in a "stabilised" form by transmitted light microscopy.

Tracing the connections to the lateral geniculate nucleus. After injection of a Biotinylated dextran tracer dye, labelled ganglion cells in the retina are visualised with fluorescence microscopy (lower left). Labelled pyramidal cells in the visual cortex are visualised using diaminobenzidine reaction (lower right).