

Functions of the M and P divisions of the LGN

Schiller, P. H., Logothetis, N. K., and Charles, E. R. (1990). Functions of the colour-opponent and broad-band channels of the visual system. *Nature* **343**, 68–70.

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1. How did they get a measure of the ability of the animal to detect a target (for example, a target defined by colour)?
2. How did they selectively lesion either the parvocellular or the magnocellular regions of the LGN? How did they know if this was successful?
3. What deficits occurred after lesions of the parvocellular system? What deficits occurred after lesions of the magnocellular system?
4. Neither lesions to the parvocellular or to the magnocellular regions produced a deficit in the animal's ability to detect the targets defined via gross differences in shape or stereopsis. Why do you think this was? Could this be tested?
5. Can you devise an experiment using this lesion technique to investigate some other aspect of visual function?