



Howard Hughes Medical Institute
Research Laboratories

John H.R. Maunsell, Ph.D.
Investigator

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Prof. Rob de Ruyter
Biocomplexity Faculty Search Committee
Department of Physics
Swain West 117
727 East Third Street
Indiana University
Bloomington, IN 47405-7105

Dear Prof. de Ruyter:

I am writing in support of Dr. Sidney Lehky's application for a faculty position in the Biocomplexity Institute. Sidney was a post-doctoral fellow in my laboratory from 1991 to 1994, and I have followed his work closely since then.

Sidney has an extraordinarily broad range of expertise in approaches to studying the function of the visual system. His Ph.D. work at the University of Chicago with Hugh Wilson gave him an excellent background in experimental psychophysics. His post-doctoral work with Terry Sejnowski gave him expertise in computational approaches, in particular neural networks. Finally, the research he has done with Bob Desimone, Keiji Tanaka and myself has made him proficient in experiments using trained, behaving monkeys to study the visual system. I do not know anyone else with his depth and range of expertise in different approaches.

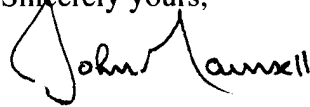
He has put his expertise to good use. Sidney focuses on important and often difficult problems, and consistently produces solid and substantial results. His work is of the very highest quality. While some investigators at his level have published more papers, few have produced publications that are so reliable and interesting.

While Sidney was in my lab, he investigated whether binocular rivalry involves changes in the activity of monocular neurons in the lateral geniculate nucleus. Sidney made a clear and persuasive case for the significance of rivalry in understanding visual perception and for a neurophysiological examination of neurons in the lateral geniculate nucleus in animals viewing rivalrous stimuli. He had a strong rationale based on a hypothesis he had developed in collaboration with Randy Blake, and a specific experimental design that was precisely

appropriate for addressing the question. Sidney developed a powerful approach for analyzing his data, and he was meticulous about pursuing inconsistencies or unexpected observations. The results were unequivocal: there was no sign of rivalry in the activity of neurons in the lateral geniculate. This result was important because it placed the site of neurophysiological signals related to perception of visual stimuli in the cerebral cortex. Subsequent recordings in cortex made by Nikos Logothetis and his colleagues have supported Sidney's results.

Overall, Sidney was unusually efficient, productive and independent. He is remarkably intelligent and thoughtful, and expresses himself clearly and succinctly. I enjoyed the scientific discussions that I have with him, and the manuscripts he prepared were exceptionally well written and clear. I have no doubt that he will be creative and productive as an independent scientist, and I am sure he will establish an innovative and important research program.

Sincerely yours,

A handwritten signature in black ink that reads "John Maunsell". The signature is written in a cursive style with a large, looped initial "J" and a distinct "Maunsell" ending.

John Maunsell