Photoreceptor Degeneration during Infection with Various Strains of the Scrapie Agent in Hamsters

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Hamsters were inoculated intracerebrally with the 22C, 79A, and ME7 strains of the scrapie agent to compare the effects on the retina with those caused by strain 263K. The animals developed clinical signs of encephalopathy. Photoreceptor degeneration occurred in all experimental animals. The changes were similar to those seen in animals infected with the 263K strain of scrapie although somewhat more variable and less extensive.

Experimental infection with the 263K (1) or Chandler (6) strains of the scrapie agent results in retinal degeneration in hamsters. As part of our work investigating the pathogenesis of scrapie retinopathy in hamsters, we wanted to determine if photoreceptor degeneration was unique to these strains or whether it was a characteristic trait of experimental hamster scrapie regardless of the strain. After we completed our study, the results of another study

Abbreviation: CNS—central nervous system.

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Please address reprint requests to Dr. Buyukmihci, Department of Surgery, School of Veterinary Medicine, University of California, Davis, California 95616. This work was done prior to 1985. The first author no longer accepts this type of animal use as ethically defensible but feels the data should be reported to prevent unnecessary duplication of the research.