Figure Legend:  

**Figure 1** Eye, Retina - Normal in a female F344/N rat from a chronic study. Normal retina (arrow), optic disc (D), and optic nerve (N) for comparison to Figure 2.  

**Figure 2** Eye, Retina - Gliosis in a female F344/N rat from a chronic study. There are increased numbers of glial cells in the nerve fiber layer (arrow), optic disc (D), and optic nerve (N).

**Comment:** Retinal gliosis (Figure 2, compare to normal in Figure 1), the proliferation of astrocytes, Müller cells, and/or microglia, can occur in various retinal layers with focal to diffuse distribution. It is characterized by increased numbers of glial cells in the retina. Retinal gliosis can occur as a primary change (generally of uncertain etiology) or as a feature to other retinal lesions (e.g., degeneration).

**Recommendation:** When occurring as a primary change, retinal gliosis should be diagnosed and assigned a severity grade. When retinal gliosis occurs as a morphologic feature or reactive sequela of another pathologic process (e.g., retinal degeneration), it should not be diagnosed separately (unless warranted by severity), but should be described in the pathology narrative.

**References:**
References:

Full-text: [http://www.iovs.org/content/50/5/2459.full](http://www.iovs.org/content/50/5/2459.full)


Full-text: [http://www.jleukbio.org/content/81/6/1345.full](http://www.jleukbio.org/content/81/6/1345.full)

National Toxicology Program. 2012. NTP TR-571. Toxicology and Carcinogenesis Studies of Kava Kava Extract (CAS No. 9000-38-8) in F344/N Rats and B6C3F1 Mice (Gavage Studies). NTP, Research Triangle Park, NC.

Full-text: [http://toxsci.oxfordjournals.org/content/88/2/456.full.pdf](http://toxsci.oxfordjournals.org/content/88/2/456.full.pdf)


Full-text: [http://www.iovs.org/content/46/8/2992.full](http://www.iovs.org/content/46/8/2992.full)

Author:
Margarita M. Gruebbel, DVM, PhD, DACVP
Senior Pathologist
Experimental Pathology Laboratories, Inc.
Research Triangle Park, NC