Visual side effects of immunosuppressive drugs shown in rats used for translational stem cell study

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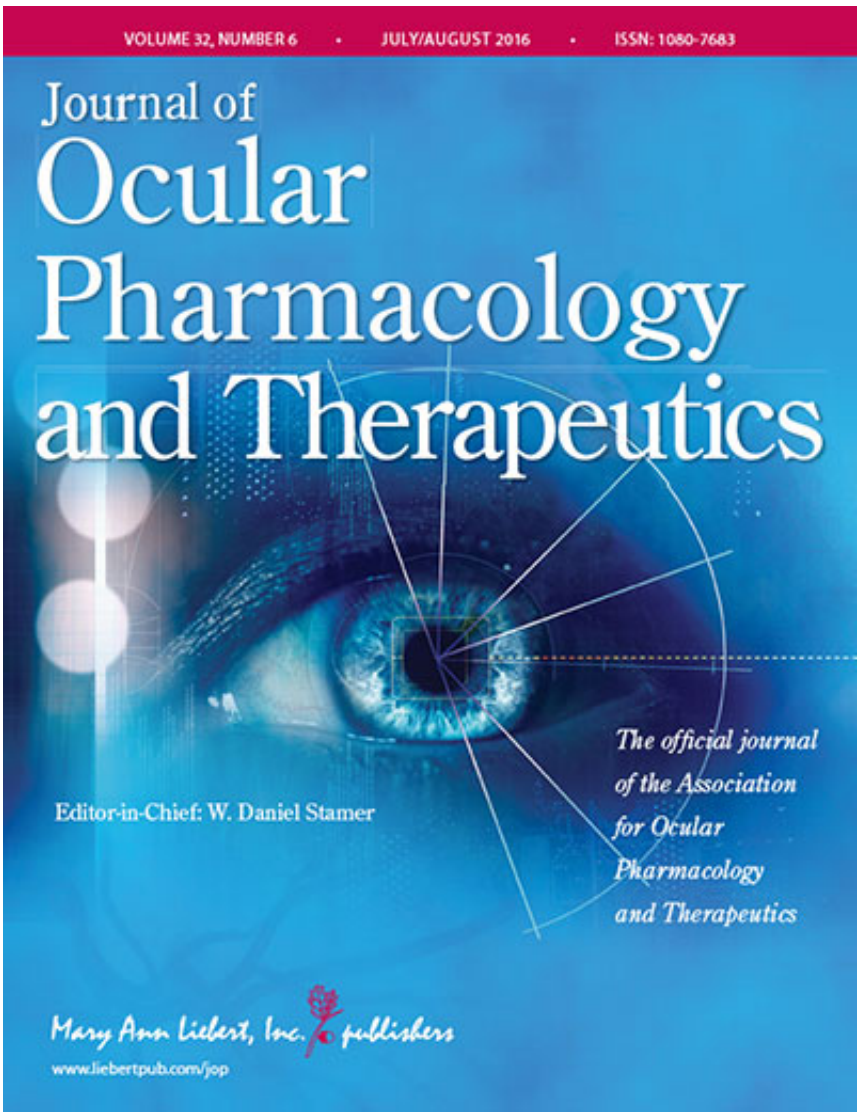

Credit: Mary Ann Liebert, Inc., publishers

A new study of the immunosuppressive treatment routinely used to prevent graft rejection in rats that serve as test subjects for human stem cell therapies to combat retinal degeneration has linked the immunosuppressive regimen to reduced visual function. This finding has important implications for interpreting the results of studies that use common rat model for translational stem cell research, as described in an article in *Journal of Ocular Pharmacology and Therapeutics*.

In "Immunosuppressive Treatment Can Alter visual Performance in the Royal College of Sugeons Rat", Ann E. Cooper, Henry Klassen, and coauthors, University of California, Irvine, compared changes in retinal degeneration between rats that received no treatment or systemic immunosuppression with the commonly used combination of oral cyclosporine A and injectable dexamethasone. The drugs help prevent the rat's immune system from recognizing the human stem cells as foreign and destroying them.

"This study by Cooper and Klassen provides valuable information about the effects of immunosuppressive drugs on visual function in a commonly used model to evaluate cell-based therapeutics," says Editor-in-Chief W. Daniel Stamer, PhD, Joseph A. C. Wadsworth Professor of Ophthalmology and Professor of Biomedical Engineering, Duke University, Durham, NC.

More information: Ann E. Cooper et al, Immunosuppressive Treatment Can Alter Visual Performance in the Royal College of Surgeons Rat, *Journal of Ocular Pharmacology and Therapeutics* (2016). DOI: 10.1089/jop.2015.0134