Neuro-Ophthalmology and Optic Neuropathy

Guest Editor:

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Deadline for manuscript submissions:
closed (31 December 2023)

Message from the Guest Editor

Dear Colleagues,

As we know, retinal ganglion cells (RGCs) are the only neurons in the eye that transmit visual information to the brain via their extending axons in the optic nerve (ON). Optic neuropathies are conditions in which there is damage to the ON caused by a variety of causes, including glaucoma, inflammation, gene mutation, ischemia, trauma, and tumor. ON damage triggers a process of axon degeneration and the loss of RGCs, resulting in permanent vision loss. Therapeutic strategies are purposed to regenerate axons or replace the RGC loss via neuroprotection, neuroregeneration, and neuronal replacement.

This Special Issue is open to receiving papers on all aspects of current and future strategies for RGC and ON protection, replacement, and regeneration. We welcome full reviews, original research, as well as perspectives that cover but are not limited to the following topics:

- Molecular mechanisms to protect RGCs and axons from damage
- Ocular inflammation and RGC/axon degeneration
- Stem-cell-based therapy to replace RGC loss
- Gene therapy in optic neuropathies
- Regenerative medicine in glaucoma and optic neuropathies
- Neuroprotection for glaucomatous optic neuropathy

Special Issue

brain sciences

Editor-in-Chief

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Message from the Editor-in-Chief

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Rapid Publication: manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.6 days after submission; acceptance to publication is undertaken in 2.5 days (median values for papers published in this journal in the second half of 2023).

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