Special Issue

Neuro-Ophthalmology and Optic Neuropathy

Message from the Guest Editor

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

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Deadline for manuscript submissions

closed (31 December 2023)

Brain Sciences

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Message from the Editor-in-Chief

You are invited to contribute a research article or a comprehensive review for consideration and publication in *Brain Sciences* (ISSN 2076-3425). *Brain Sciences* is an open access, peer-reviewed scientific journal that publishes original articles, critical reviews, research notes, and short communications on neuroscience. The scientific community and the general public can access the content free of charge as soon as it is published.

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