

Special Issue

Glaucoma – Pathophysiology and Therapeutic Options

Message from the Guest Editors

Glaucoma is one of the leading causes of irreversible blindness worldwide, and the prevalence is rising continuously. Intraocular pressure (IOP) elevation is still the main risk factor for glaucoma progression, which leads to mechanical tension, a remodeling of the lamina cribrosa, ischemic damage, axonal disorders, as well as neurodegeneration. Therefore, a cornerstone of glaucoma treatment is lowering of the IOP. Importantly, glaucoma is a multifactorial neurodegenerative disease and glaucomatous optic neuropathies can also occur in people with a normal physiological IOP, defined as normal tension glaucoma. Here, other causes are assumed, e.g., immunological reactions, circulatory disturbances, hypoxia, and oxidative stress. However, the exact pathophysiology, particularly the underlying molecular signaling mechanisms of IOP-induced and IOP-independent glaucomatous neurodegeneration, is not yet understood sufficiently.

This Special Issue will invite experts in the field to submit studies article, reviews and short communications on the current state of knowledge regarding IOP-dependent as well as IOP-independent glaucomatous neuropathies.

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A major strength of biological science is the diversity of approaches that biological scientists apply to their research problems. *Biology* reflects this diversity and brings together studies employing the varied experimental and theoretical approaches that are fueling biological discovery. *Biology*, the journal, is a fully peer-reviewed publication with a rapid and economical route to open access publication and is listed on PubMed. All articles are peer-reviewed and the editorial focus is on determining that the work is scientifically sound rather than trying to predict its future impact.

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