

## Special Issue

# Understanding the Molecular Mechanisms of Retinal Ganglion Cell Death after Optic Nerve Damage

### Message from the Guest Editor

The optic nerve is a bundle of axons from retinal ganglion cells (RGCs). Once it is injured, retrograde axonal degeneration occurs, and RGCs finally fall into cell death. Clinically, most optic neuropathies are still resistant to treatments, and beneficial regimens have yet to be established. A variety of animal models, including glaucoma, traumatic optic neuropathy, ischemic optic neuropathy, experimental autoimmune encephalomyelitis, etc., has been applied to elucidate pathological mechanisms. Notably, it has been suggested that RGC death is linked to inflammatory reaction, autophagy, oxidative reaction, mitochondrial dysfunction, and glucose and lactate metabolisms. This Special Issue explores recent advances in order to understand molecular mechanisms of RGC death better and solicits novel perspectives by expert review.

---

### Guest Editor

Dr. Takuji Kurimoto

Division of Ophthalmology, Department of Surgery, Kobe University Graduate School of Medicine, Kobe, Japan

---

### Deadline for manuscript submissions

closed (28 February 2022)



## International Journal of Molecular Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.9  
CiteScore 9.0  
Indexed in PubMed



[mdpi.com/si/71764](https://mdpi.com/si/71764)

*International Journal of  
Molecular Sciences*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[ijms@mdpi.com](mailto:ijms@mdpi.com)

[mdpi.com/journal/  
ijms](https://mdpi.com/journal/ijms)





# International Journal of Molecular Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.9  
CiteScore 9.0  
Indexed in PubMed



[mdpi.com/journal/  
ijms](https://mdpi.com/journal/ijms)



## About the Journal

### Message from the Editor-in-Chief

The *International Journal of Molecular Sciences (IJMS)* is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, and molecular biophysics. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

---

### Editor-in-Chief

Prof. Dr. José L. Quiles  
Department of Physiology, Institute of Nutrition and Food Technology  
"Jose Mataix", Biomedical Research Center, University of Granada,  
Avda. Conocimiento s/n, 18100 Armilla, Granada, Spain

---

### Author Benefits

#### Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, MEDLINE, Embase, CAPus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q1 (Biochemistry and Molecular Biology) / CiteScore - Q1 (Organic Chemistry)