



antioxidants

IMPACT
FACTOR
6.6

Indexed in:
PubMed

CITESCORE
12.4

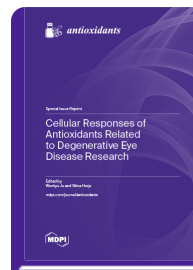
Special Issue Reprint

Cellular Responses of Antioxidants Related to Degenerative Eye Disease Research

www.mdpi.com/books/reprint/11232

Edited by
Wonkyu Ju
Niina Harju

ISBN 978-3-7258-4527-9 (Hardback)
ISBN 978-3-7258-4528-6 (PDF)



Oxidative stress is critical in degenerative retinal diseases. Antioxidants are considered to be potential therapeutics that can treat retinal diseases. Loss of retinal epithelium (RPE) is an important contributor to the degeneration of the retina. Dry AMD induces straight RPE cell degeneration, whereas the wet form causes neovascularization following RPE cell loss. Glaucoma induces progressive retinal ganglion cell (RGC) axon degeneration, resulting in RGC death and visual deficits. RPE cells are also important regulators in eye growth and thus are also susceptible to participating in retinal detachment in myopia. In diabetic retinopathy, the RPE barrier breaks, leading to vascular leakage. The retina is a thin layer in the posterior part of the eye that collects visual information and transfers it to the brain via the optic nerve. Retina consists of RPE cells, photoreceptor rods and cones, glial cells, and neuronal cells, including RGCs. RPE cells support homeostasis by performing a heterocycle of outer photoreceptor segments, enabling nutritional transport from the choroid and removing waste material into the choroid, for example. RPE degeneration leads to vision loss, and antioxidants could protect these cells against oxidative stress, mitochondrial dysfunction, and inflammation, all important contributors to retinal degeneration. This Special Issue is a collection of studies related to cellular responses to oxidative stress and antioxidants in pre-clinical degenerative retinal eye disease research. It includes articles about different aspects of oxidative stress and antioxidants in degenerative retinal diseases.



Order Your Print Copy
You can order print copies at
www.mdpi.com/books/reprint/11232

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



Open Access

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



Author Focus

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



High Quality & Rapid Publication

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).



Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.