Special Issue

Molecular Mechanisms and Metabolic Pathway of Diabetic Retinopathy

Message from the Guest Editor

Molecular mechanisms of diabetic retinopathy are suggested to underlie diabetes-induced complications. The pathogenesis of diabetic retinopathy has been shown to be related to increased polyol pathway flux, increased formation of advanced glycation end-products (AGEs), activation of the protein kinase C (PKC) pathway, and increased oxidative stress. Retinal vascular occlusion causes the upregulation of such factors as insulin-like growth factor (IGF), stromal-derived factor-1 (SDF-1), vascular endothelial growth factor (VEGF), angiopoietins (Ang-2), tumor necrosis factor (TNF), and basic fibroblast growth factor-2 (bFGF), which eventually contribute to the pathogenesis of diabetic retinopathy. The question of how growth factors play a pivotal role in diabetic retinopathy remains open to discussion. This Special Issue of the *International Journal of Molecular Science* aims to provide an overview of the latest developments in our understanding of the mechanisms of diabetic retinopathy and their use in new therapeutic approaches to the treatment of various stages of diabetic retinopathy.

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The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) 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, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *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.

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