

Special Issue on
**Early Biomarkers for New Risk Stratification Modalities
and Treatments in Diabetic Eye Disease**

CALL FOR PAPERS

Diabetes mellitus (DM) is a major medical and societal challenge due to its rapid increase in global prevalence and devastating late complications. Diabetic eye disease (diabetic retinopathy and diabetic macular edema) is the leading cause of blindness and reduced vision in the developed world.

The development and progression of diabetic eye disease is a complex interplay between environmental, genetic, and epigenetic factors. Early detection of such factors or biomarkers, before a manifest retinal pathology develops, is a necessity towards the prevention and treatment of this blinding disease. Screening for novel biomarkers - together with risk stratification of patients using non-invasive diagnostic tools available in clinical practice - will lead towards validation of present, and generation of new, population-based or personalized risk stratification algorithms. Systematic screening and monitoring programs for diabetic eye disease would also improve the cost-effectiveness of treatment by optimizing its timing. Such programs will implement the use of machine learning and artificial intelligence for improved 'data mining and processing' in diabetic eye disease.

The aim of this Special Issue is to summarize the recent research achievements in the field of diabetic retinopathy and diabetic macular edema. We welcome research articles devoted to any aspect of diabetic eye disease, ranging from basic science to clinical applications, as well as research articles discussing the current state of the art.

Potential topics include but are not limited to the following:

- ▶ Experimental models of diabetic retinopathy
- ▶ Novel local and systemic biomarkers of diabetic eye disease
- ▶ New noninvasive and efficient technologies for the precocious, more sensitive, and pathophysiology-based diagnosis of high-risk diabetic retinopathy
- ▶ Relations between systemic vasculopathy changes and diabetic eye disease
- ▶ Innovative treatment approaches to stop the progression of diabetic eye disease in primary, secondary, and tertiary medical care
- ▶ Antidiabetic medications and diabetic eye disease
- ▶ Personalized care for diabetic patients with risk of visual loss
- ▶ Complex diabetic patients: approaches, challenges, perspectives
- ▶ Achievement in screening programs of diabetic retinopathy
- ▶ Machine learning and artificial intelligence for effective screening of diabetic eye disease

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/jdr/ddbmt/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

Lead Guest Editor

Jelizaveta Sokolovska, University of Latvia, Riga, Latvia
jelizaveta.sokolovska@lu.lv

Guest Editors

Andrzej Grzybowski, University of Warmia and Mazury, Olsztyn, Poland
ae.grzybowski@gmail.com

Mladen Krnić, University of Split, Split, Croatia
mladen.krnic@gmail.com

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