



Special Issue on
**The Pathogenesis of Cardiovascular Complications
in Diabetes: Circulating Cytokines and MicroRNAs as
Molecular Biomarkers**

CALL FOR PAPERS

Diabetes in conjunction with other major risk factors is an important cause of cardiovascular disease (CVD). Also, hyperglycemia-induced endothelial dysfunction along with hypercoagulable potential of diabetes mellitus accelerates the process of CVD complications. The development of cardiovascular complications in diabetes is the result of multiple intermediate processes, and vascular inflammatory mechanisms play significant contributing roles. These complications comprise coronary heart disease, stroke, peripheral arterial disease, nephropathy, retinopathy, and possibly neuropathy and cardiomyopathy. The endothelium holds a pivotal role in inflammation and the ability to detect endothelial dysfunction before overt cardiovascular disease manifests make them attractive clinical tools for prevention and rehabilitation. Furthermore, a precise understanding of inflammatory processes can be expected to lead to novel diagnostic and therapeutic strategies to control CVD complications. Key mediators of inflammation include circulating cytokines and specific microRNAs and their collective action is largely responsible for the promotion of pathogenesis of cardiovascular complications in diabetes.

In this special issue, we provide a general overview of the relationship between CVD and diabetes and highlight the less well-understood cellular and molecular mechanisms to appreciate the complex and multifactorial etiology of CVD in diabetes. In addition, we will focus on the role of circulating cytokines and microRNAs as molecular biomarkers and targets for preventive, diagnostic, and therapeutic strategies to reduce the development of cardiovascular complications in diabetes.

We invite investigators to contribute original research articles as well as review articles that will bring light to understanding the pathogenesis of cardiovascular complications in diabetes and addressing more effective therapies for prevention and treatment.

Potential topics include, but are not limited to:

- ▶ Diabetes as a major risk factor in cardiovascular disease: the relevance of key biomarkers
- ▶ Cardiovascular complications in diabetes: the involved mechanisms and potential new pharmacological therapies
- ▶ Inflammation in cardiovascular disease and diabetes: circulating cytokines as molecular biomarkers
- ▶ The mechanisms of oxidative stress in diabetic cardiovascular disease
- ▶ MicroRNAs, diabetes, and progression to cardiovascular disease
- ▶ Diabetes, platelet disorder, and cardiovascular complications
- ▶ Clinical management of diabetic patients with cardiovascular disease

Authors can submit their manuscripts via the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/jdr/pcd/>.

Lead Guest Editor

Adriana Georgescu, Institute of Cellular Biology and Pathology "Nicolae Simionescu" of Romanian Academy, Bucharest, Romania
adriana.georgescu@icbp.ro

Guest Editors

Rory R. Koenen, Maastricht University, Maastricht, Netherlands
r.koenen@maastrichtuniversity.nl

Nicoleta Alexandru, Institute of Cellular Biology and Pathology "Nicolae Simionescu" of Romanian Academy, Bucharest, Romania
nicoleta.alexandru@icbp.ro

Sérgio Dias, Faculdade de Medicina da Universidade de Lisboa, Lisbon, Portugal
diassjr@gmail.com

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