



Journal of Diabetes Research

Special Issue on
**Insulin Resistance, Type 1 and Type 2 Diabetes, and
Related Complications 2015**

CALL FOR PAPERS

The global escalation of obesity and diabetes in developed and developing nations poses a great health challenge. Obesity is one of the major causes of type 2 diabetes. Type 1 diabetes is primarily due to the autoimmune-mediated destruction of pancreatic beta-cell leading to insulin deficiency. This is usually accompanied by alterations in lipid metabolism, enhanced hyperglycemia-mediated oxidative stress, endothelial cell dysfunction, and apoptosis. Similarly, in type 2 diabetes, increased glucotoxicity, lipotoxicity, endoplasmic reticulum-induced stress, and apoptosis lead to the progressive loss of beta-cells. While type 1 diabetes is characterized by the presence of beta-cell autoantibodies, a combination of peripheral insulin resistance and dysfunctional insulin secretion by pancreatic beta-cells is implicated in the pathogenesis of type 2 diabetes. Although insulin resistance has traditionally been associated with type 2 diabetes, mounting evidence indicates that the incidence of insulin resistance in type 1 diabetes is increasing; therefore, novel mechanistic approaches deciphering insulin resistance are needed. Many pathophysiological factors are implicated in insulin resistance. Although the exact natures of these factors are not completely understood, it is widely accepted that oxidative stress, inflammation, and genetic, habitual, environmental, and other epigenetic factors play a significant role.

In the past decade, significant strides have been made in elucidating important mechanisms associated with insulin resistance, overt diabetes, and related cardiometabolic diseases. However, more intense research is still needed for a more comprehensive understanding of the pathophysiological profile of insulin resistance in diabetes, especially in situations where diabetes is comorbid with other chronic diseases.

Therefore, this special issue will welcome research and review papers that address a broad range of mechanisms associated with insulin resistance, type 1 diabetes, type 2 diabetes, and related cardiometabolic complications.

Potential topics include, but are not limited to:

- ▶ Role of epigenetics in type 1 and type 2 diabetes
- ▶ Novel mechanisms of insulin resistance and dysfunctional glucose metabolism in type 1 and type 2 diabetes
- ▶ Novel prognostic and therapeutic interventions
- ▶ Role of adiposity in insulin signaling and cardiometabolic complications
- ▶ Macrovascular and microvascular complications of diabetic complications including cardiomyopathy, nephropathy, vasculopathy, and neuropathy

Authors can submit their manuscripts via the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/jdr/drcc15/>.

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First Round of Reviews

Friday, 1 May 2015

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