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Regulatory Mechanism of Insulin Signaling in Diseases

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Message from the Guest Editors

This Special Issue on the regulatory mechanism of insulin signaling in diseases captures the ongoing challenges of insulin resistance. With this Special Issue, we aim to develop an integrative physiological perspective with a special focus on intricate signaling effectors that regulate cell-cell communication during insulin signaling and connectors that coordinate tissue specific responses.

Insulin's discovery has ignited interest in the study of the molecular mechanisms of cellular insulin action. Many fundamental cellular processes, including mitochondrial morphology, transfer of molecules across the mitochondrial endoplasmic reticulum contact space, trafficking of vesicles, regulation of gap junctions, mediating metabolic enzymes, activation of transcriptional factors, and auto degradation, are controlled by insulin. More than that, recent literature has suggested that insulin also plays a role in maintaining mitochondrial function and regulating cell-cell communication. Insulin maintains homeostasis by regulating heart metabolism through the stimulation of glucose uptake.

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Guest Editors



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Special Issue



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Cells has become a solid international scientific journal that is now indexed on SCIE and in other databases. We have successfully introduced a special issues format so that these issues serve as mini-forums in specific areas of cell science. *Cells* encourages researchers to suggest new special issues, serve as special issues editors, and volunteer to be reviewers. Our main focus will remain on cell anatomy and physiology, the structure and function of organelles, cell adhesion and motility, and the regulation of intracellular signaling, growth, differentiation, and aging. We are open to both original research papers and reviews.

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