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Review

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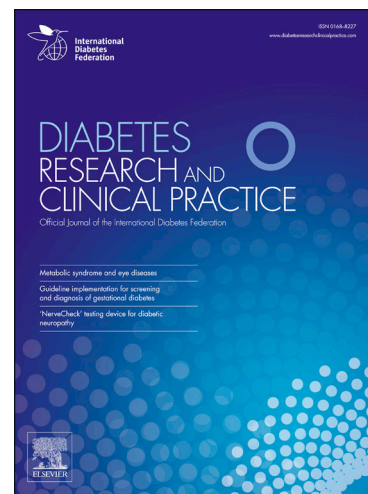
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Endothelial cell regulation through epigenetic mechanisms: depicting parallels and its clinical application within an intra-islet microenvironment

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Abstract

The intra-islet endothelial cells (ECs), the building blocks of islet microvasculature, govern a number of cellular and pathophysiological processes associated with the pancreatic tissue. These cells are key to the angiogenic process and essential for islet revascularization after transplantation. Understanding fundamental mechanisms by which ECs regulate the angiogenic process is important as these cells maintain and regulate the intra-islet environment facilitated by a complex signaling crosstalk with the surrounding endocrine cells. In recent years, many studies have demonstrated the impact of epigenetic regulation on islet cell development and function. This review will present an overview of the reports involving endothelial epigenetic mechanisms particularly focusing on histone modifications which have been identified to play a critical role in governing EC

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