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In this review, we discuss the **insulin resistance (IR)** and its development in the insulin target tissues that leads to **diabetes**. Also, we highlight the **use of induced pluripotent stem cells (iPSCs)** to understand the mechanisms underlying the development of IR. IR is associated with several metabolic disorders, including type 2 diabetes (T2D).

Author: Ahmed Elsayed, Selvaraj Vimalraj, M... Publish Year: 2020

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Author: Jasmin Lebastchi, Thiago M. Batista, ... Publish Year: 2018

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Cited by: 12 Author: Qi Ge, Liang Chen, Keping Chen

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Author: Sevdia Gheibi, Tania Singh, Joao Pau... Publish Year: 2020

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Elsayed AK *et al.* Modeling of insulin resistance using iPSCs

Ahmed K Elsayed, Selvaraj Vimalraj, Manjula Nandakumar, Essam M Abdelalim

Abstract

Insulin resistance (IR) is associated with several metabolic disorders, including type 2 diabetes (T2D). The development of IR in insulin target tissues involves genetic and acquired factors. Persons at genetic risk for T2D tend to develop IR several years before glucose intolerance. Several rodent models for both IR and T2D are being used to study the disease pathogenesis; however, these models cannot recapitulate all the aspects of

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