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Thierry Brun, Pierre Maechler

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Beta-cell mitochondrial carriers and the diabetogenic stress response

Thierry Brun, Pierre Maechler

Department of Cell Physiology and Metabolism & Faculty Diabetes Center, Geneva University Medical Centre, 1 rue Michel-Servet, 1211 Geneva 4, Switzerland

Corresponding author:

Pierre Maechler, Department of Cell Physiology and Metabolism, Centre Médical Universitaire, 1, rue Michel-Servet, 1211 Geneva 4, SWITZERLAND Tel: +41 22 379 55 54, E-mail: Pierre.Maechler@unige.ch

Highlights:

- In pancreatic beta-cells, insulin secretion is tightly controlled by mitochondria.
- Mitochondrial carriers import and export signalling molecules.
- Mitochondrial signals regulate the secretory response.
- Type 2 diabetes is associated with lipotoxic and glucotoxic conditions.
- Mitochondrial carriers are responsive to glucolipotoxicity.

Keywords: pancreatic islet, beta-cell, mitochondria, diabetes, glucotoxicity

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