LIMNA
Lausanne Integrative Metabolism & Nutrition Alliance

SEMINAR

Wednesday February 10th, 2016 - 12h15
Department of Physiology, Bugnon 7, 1005 Lausanne
seminar room, 6th floor

Prof. Lena Eliasson

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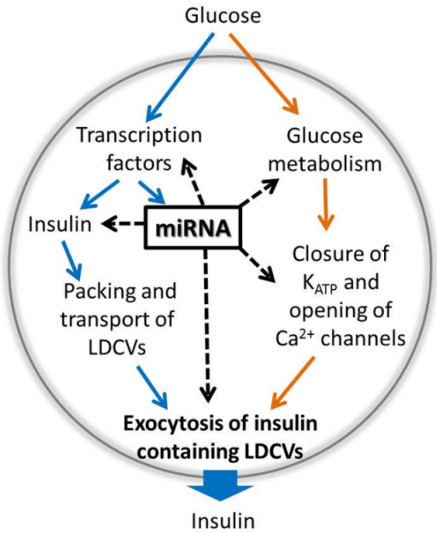
"Non-coding RNAs in pancreatic beta-cell physiology"

Host: Prof. Romano Regazzi

Type-2 diabetes (T2D) is a complex disease dependent on both genetic background and life-style factors. The disease is associated with increase in blood glucose level which is due to reduced insulin secretion from the pancreatic β-cell and impaired insulin action at the target cells. Diabetes is also associated with a perturbed glucagon secretion. The main focus of our research is to investigate the regulation of insulin and glucagon secretion from a cell physiological perspective and with a specific interest in how non-coding RNAs (ncRNA) are involved in this regulation. Ultimately, our research gives new insight into treatment and discovery strategies of T2D, and we anticipate our novel findings will be essential for future treatment of T2D. The drawing is a schematic on how miRNAs influence different processes in the beta-cell (from Esguerra et al Genes 2014).



References

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2. CFTR and Anoctamin 1 (ANO1) contribute to cAMP amplified exocytosis and insulin secretion in human and murine pancreatic beta-cells. Edlund A, Esguerra JL, Wendt A, Flodström-Tullberg M, Eliasson L. BMC Med. 2014 May 28;12:87. doi: 10.1186/1741-7015-12-87.
3. Differential glucose-regulation of microRNAs in pancreatic islets of non-obese type 2 diabetes model Goto-Kakizaki rat. Esguerra JL, Bolmeson C, Cilio CM, Eliasson L. PLoS One. 2011 Apr 7;6(4):e18613. doi: 10.1371/journal.pone.0018613.

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