

Distinguished Lecture Series in Physiology

Department of Physiology & Membrane Biology

University of California, Davis



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Genentech, Inc.

Automated electrophysiology in drug discovery: a case study on Kv2 channels in pancreatic hormone secretion

The voltage-gated potassium channels Kv2.1 and Kv2.2 are highly expressed in pancreatic islets, yet their contribution to islet hormone secretion are not fully understood. We have studied the role of Kv2 channels in pancreatic islets using a combination of genetic and pharmacological approaches. Our current model proposes that inhibition of Kv2.2 enhances somatostatin release which acts in a paracrine fashion within the islet to blunt insulin secretion. Development of selective Kv2.1 inhibitors without cross inhibition of Kv2.2 may provide new avenues to promote insulin secretion for the treatment of type 2 diabetes

Wednesday, May 1, 2013

11 a.m.

Genome and Biomedical Sciences Facility, Auditorium 1005