



Project Title: Understanding how pancreatic beta cells control insulin secretion		Code: SOMS6
Host School / Institute: School of Medical Sciences/ Charles Perkins Centre		Address: Charles Perkins Centre
Certificates & Clearances required: No		
Primary Supervisor: Prof Peter Thorn		
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Co-Supervisor/team: The lab has four post-doctoral researchers, one HDR student and numerous undergraduate students.		
Project Type: Laboratory based		
Project Category: Endocrinology/Metabolism; Physiology		
Skills / Attributes of a successful student: Some previous lab experience would be an advantage, although not essential.		
Project Keywords: diabetes; insulin; islets of Langerhans; imaging		
<p>Project Description: Our data the suggest that insulin secretion is targeted towards the vasculature. Ongoing projects in the lab are designed to prove this targeting and then to identify the function consequences in the control of insulin secretion. The work involves advanced imaging techniques, molecular biology and electron microscopy. We use islets from mice and humans to identify key proteins and then test for their role in controlling insulin secretion.</p> <p>The project is relevant for the development of cell-based cures for type 1 diabetes. If we can discover the optimal conditions for the function of normal beta cells then this can be translated into optimizing islet transplantation and stem cell approaches.</p>		