

## Cellglow

"Cellglow" is developing a "pancreas on a plate" assay to be used to evaluate prospective drugs designed to improve insulin secretion. One of the major problems with late stage type two diabetes is that, in addition to the body not responding properly to insulin, signals that should stimulate insulin secretion fail to work on the insulin secreting Beta cells. Typically, the development of drugs designed to improve Beta cell function require the use of time consuming and expensive insulin assays.

The approach being developed by Cellglow depends on the fact that Beta cell release of insulin in response to elevated glucose is entirely dependent on the release of calcium from intracellular stores. Intracellular calcium release is critical to driving the mechanism responsible for releasing insulin and importantly, calcium can be made "visible" through the use of specialized intracellular dyes. These dyes change their fluorescence in the presence of calcium and this feature was used to develop a rapid and inexpensive functional assay of beta cell insulin secretion.

This assay will also be very effective in evaluating experimental disease effects on insulin secretion mechanisms as well as investigations of complex disease-drug interactions that affect Beta cell function.



For more information, contact:

Leslie Smith

(225) 763-2627

leslie.smith@pbrc.edu

<http://businessdevelopment.pbrc.edu>