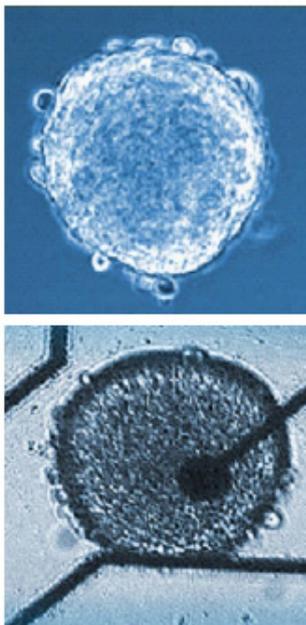


Beta-cell Screen

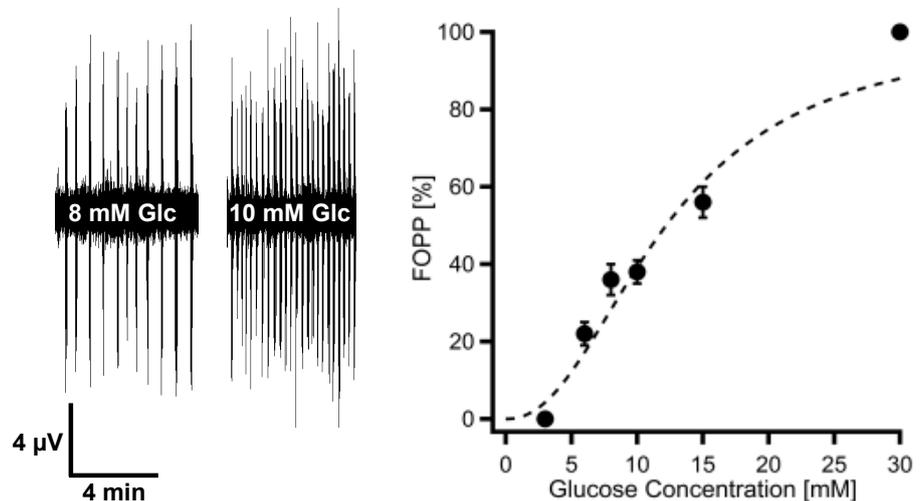
Beta-cell Screen to test for drug effects on beta cell function in intact islet of Langerhans.

- Fast and reliable, non-invasive extracellular recording of beta-cell oscillatory activity with MEA-electrodes
- Parallel recording from up to 5 islets of Langerhans
- Determination of drug-induced effects on oscillatory activity of beta-cells presented as alteration in the fraction of Plateau Phase (FOPP)
- Analysis of long-term drug effects up to 2 weeks

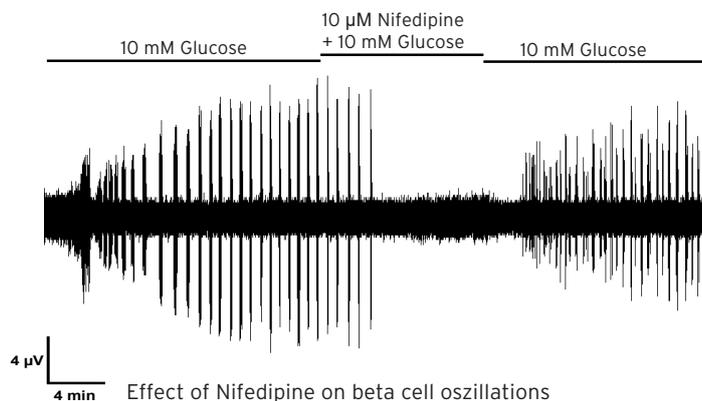
The assay is based on the recording of beta-cell oscillatory activity which couples blood glucose concentration to insulin secretion. The fraction of plateau phase, i.e., the percentage of time with burst activity, is an excellent marker for beta-cell function and metabolic integrity and can be used as a measure to test for drug effects on beta-cell function and insulin release.



Isolated murine islets of Langerhans (top) placed on a MEA chip (bottom)



Glucose-dependent alteration of beta-cell oscillatory activity



Effect of Nifedipine on beta cell oscillations

NMI TT Pharmaservices
Markwiesenstraße 55
72770 Reutlingen,
Germany
Phone +49 7121 51530-0
Fax +49 7121 51530-16
www.nmi-tt.de

Contact
Dr. Udo Kraushaar
Phone +49 7121 51530-851
kraushaar@nmi-tt.de
Dr. Timm Danker
Phone +49 7121 51530-896
danker@nmi-tt.de

www.nmi-tt.de/mea-beta-cell