



Driver 7: Active nano-photonic implants

Coordinator: Peter Dubruel

Posters presented at the Annual Meeting:

Eva Ryckeboer (PBM): “Novel sensor design for continuous glucose monitoring”

We aim at developing a continuous implantable glucose sensor based on absorption spectroscopy. The sensor itself is a photonic integrated circuit embedded in a biocompatible polymer. New strategies are being developed and implemented to measure a spectrum with high signal-to-noise ratio.

Valérie Kodeck (PBM): “Siloxane based materials as packaging materials for glucose sensors”

Polydimethylsiloxane (i.e. PDMS) has been selected as a packaging material for implantable optical glucose sensors due to its transparency in the near-IR wavelengths and its extensive history as a biocompatible material. To improve the mechanical and biological characteristics of the material, various strategies have been evaluated and tested *in vitro* and *in vivo* with excellent results.

Elke Van De Walle (PBM): “Glucose monitoring using plexiglass type packaging”