

<u>Name</u>	<u>Organisation</u>	<u>Project title</u>	<u>Decision No.</u>	<u>Decision date</u>	<u>Funding period</u>	<u>Funding</u>
Kinnunen, Matti	OY	Optical techniques for investigating light scattering in biological materials	128073	15.09.2008	01.01.2009 - 31.12.2011	195 450

**Project description**

The aim of this research is to clarify the basics of optical non-invasive glucose monitoring techniques at a cellular level and develop more efficient signal analysis methods for processing data of the proposed techniques. During the project, we will further develop an optical trap setup, where single particles and cells can be captured into the beam focus of laser light. The changes in the shapes of the particles will be analyzed by using CCD-camera and light scattering measurement setup. The signal analysis methods of optical coherence tomography, pulsed photoacoustic technique, and time-of-flight technique will be developed and with those techniques different diluted blood samples and plasma with different glucose concentration will be measured