

Hochschule Kaiserslautern University of Applied Sciences

Applied Research Center

Integrated Miniaturised Systems



PROSENSE – Cancer Diagnosis: Parallel Sensing of Prostate Cancer Biomarkers

The Marie Curie Initial Training Network PROSENSE aims at training a new generation of young scientists in the interdisciplinary techniques and methods required to meet the major challenges in the development of diagnostic tools for prostate cancer. It brings together training by experts from the biosensor technology area and those from life sciences and medicine that work on cancer biomarker research.

PROSENSE is a coordinated research training network involving university groups, R&D sections of small and medium enterprises, research institutes, hospitals and the R&D section of a large enterprise from the biomedical field. The scientific aspects of PROSENSE are centred around the themes of: Development and study of biomarkers, Detection techniques development, Probe immobilisation and characterisation, System integration and validation. In Zweibrücken we are developing tools for detection of prostate-specific biomarkers with silicon nanowire sensors and with sensors based on graphene.



Silicon nanowire sensors fabricated in Zweibrücken in PROSENSE.



Multiplex sensor platform for combined optical and electronic readout with integrated fluidic handling **Project duration:** 01/10/2012 – 30/09/2016

Project management:

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Project partners:

University of Bath, Cardiff University, Applied Enzyme Technology, Ltd., all U.K. Slovak Academy of Sciences, Slovakia INESC, Portugal; Dublin City University, Ireland; EPFL, Switzerland; Xeptagen SpA, Italy plus several Associated Partners in Europe

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