THE CONSORTIUM

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UNIVERSITAT POLITÈCNICA DE VALÈNCIA

Centro de Tecnología Nanofotónica de Valencia

Institute of Food Sciences
National Research Council of Italy

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AGRICULTURAL UNIVERSITY OF ATHENS

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UNIVERSITÀ DEGLI STUDI FIRENZE
DISPAA
DIPARTIMENTO DI SCIENZE DELLE PRODUZIONI AGROALIMENTARI E DELL'AMBIENTE

INDUSTRIAL PARTNERS

LUMENSIA sensors

Coordinator

CyRIC

KON TOR 46

ISS BioSense
Innovation in Optical Biosensors

www.swinostics.eu

SWINOSTICS

SWIne diseases field diagNOSTICS toolbox

European Commission

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 771649

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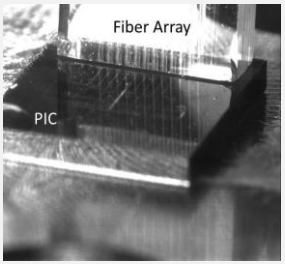
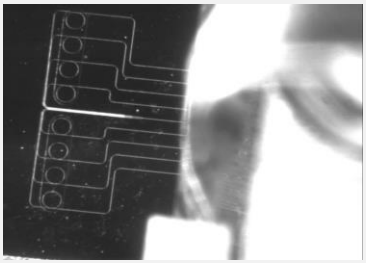
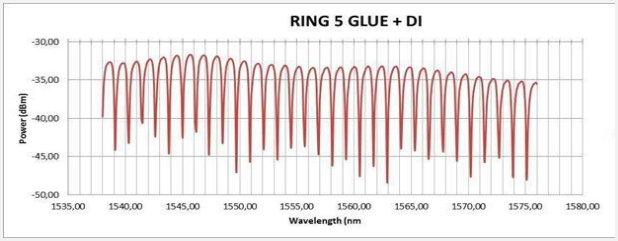
THE SENSOR - TECHNOLOGY

SWINOSTICS sensors have been developed based on bio-photonic sensing technology.



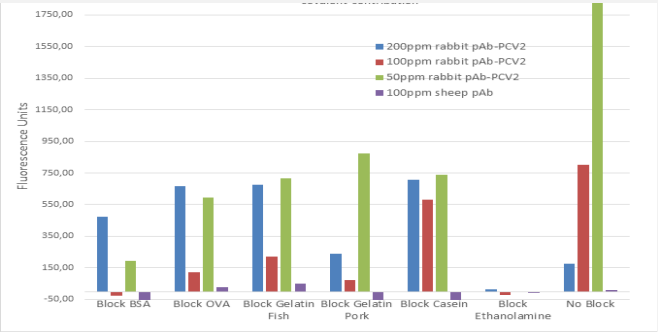




The main sensing chip is attached to the photonic circuit by means of a fiber array, which makes it simple for the use to replace the sensor. The first sensors ready for lab validation have been delivered.

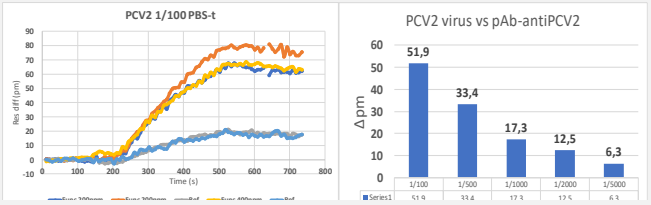
THE SENSOR - BIOLOGY

The SWINOSTICS biosensors exploit antibodies and are able to detect six important viruses for the swine industry (ASFV, PRRSV, SIV, PPV PCV2, CSF).



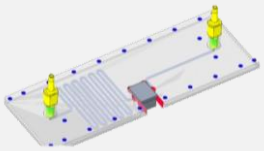
LAB TESTING

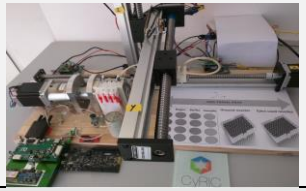
First laboratory tests have been performed with good results. Next test for full system validation are expected in early 2020.



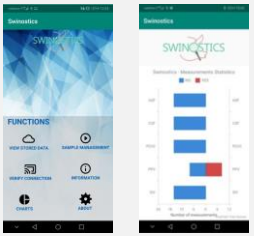
DEVICE & FLUIDICS

The sensor microfluidics and overall SWINOSTICS device fluidics allow operating the device in the field/point of care. The first prototype is being validated.





SOFTWARE INTERFACE



The device is controlled through an Android App. A web platform is also available for extended functionalities and further data analysis.

PUBLICATIONS

sensors — MDPI

Concept Paper
A Diagnostic Device for In-Situ Detection of Swine Viral Diseases: The SWINOSTICS Project

Article
Design and Development of Photonic Biosensors for Swine Viral Diseases Detection

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