

spedoc

Surface Plasmon Early Detection
of Circulating Heat Shock Proteins & Tumor Cells

▼ This project is funded by the European Commission's Seventh Framework Programme for Research [FP7]



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SPEDOC is a research initiative started in January 2010, financially supported by the European Commission's Seventh Framework Programme for Research. **SPEDOC** aims at combining the latest advances in nano-optics, optical manipulation and microfluidics with recent developments in Heat Shock Proteins (HSP70), to develop a precursor of future individualized **cancer diagnosis and treatment follow-up devices**.

The developed platform, integrated in a microfluidic environment, will exploit the surface plasmon resonances supported by gold micro- and -nano gold structures to track HSP70 proteins in the peripheral blood and to monitor its over expression at the surface of cancer cells. This innovative platform aims to be the precursor of a high sensitive point of care device **to be used in biological labs**. Through its enhanced sensitivity sensing platform, it should also permit providing treatment to cancer patients at an earlier stage and at lower doses, with the consequent decrease of secondary effects.

ABOUT CANCER

Cancer is still a primary disease in Europe. The total number of cases are increasing, and this tendency will be maintained over the coming years considering that in 2015, 22% of the population will be older than 65. Cancer affects the lives of one out of three men and one out of every four women.

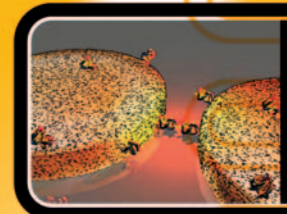
PROJECT PARTNERS

ICFO · THE INSTITUTE OF PHOTONIC SCIENCES, SPAIN
UB · UNIVERSITE DE BOURGOGNE, FRANCE
INSERM · INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE MEDICALE, FRANCE
EPFL · ECOLE POLYTECHNIQUE FEDERALE DE LAUSANNE, SWITZERLAND
COSINGO · IMAGINE OPTIC SPAIN S.L., SPAIN

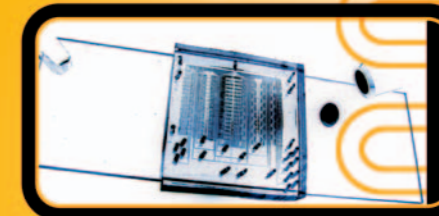
COORDINATOR CONTACT DETAILS

- **SPEDOC**
Coordinator: Prof. Dr. Romain Quidant
www.spedoc.eu · spedoc@icfo.es
ICFO · The Institute of Photonic Sciences
Mediterranean Technology Park
Av. del Canal Olímpic s/n
08860 Castelldefels (Barcelona), Spain
www.icfo.es

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