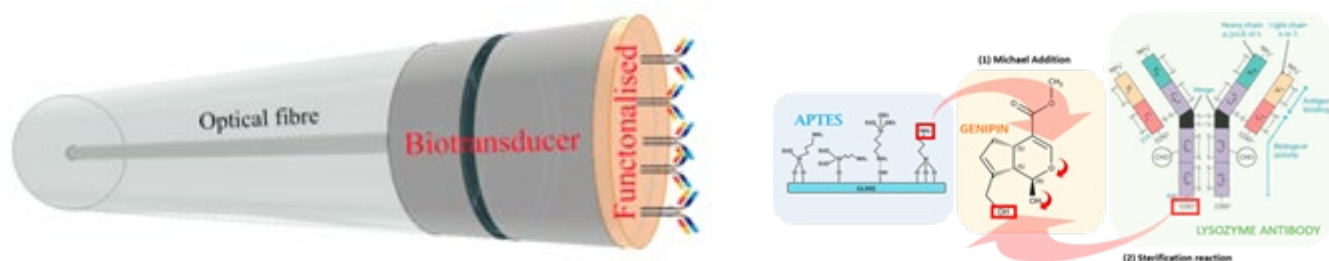


4-year PhD position

Microstructured optical fibres for photonic sensing

Modern public-health and environmental monitoring demand advances in integrated fibre-optic sensing and programmable microfluidic handling—key enablers for rapid, on-site analysis. The vision and main goal of the project is to meet these needs with a disruptive lab-on-fibre platform that couples microstructured polymer and hollow-core fibres to reconfigurable microchannels for precise sampling and pre-concentration. The PhD candidate will exploit evanescent-field and interferometric transduction on functionalised fibre surfaces, using biorecognition elements and chelating ligands to selectively capture pathogens and heavy-metal ions, enabling label-free detection and real-time quantification at ultra-low concentrations, compatible with distributed monitoring networks.



We seek a motivated researcher with:

- Undergraduate background: Degree in Physics, Engineering Physics, Telecommunications or similar
- Master's background: Photonics, Quantum Technologies, Laser Science, or similar
- Strong programming skills (preferably with Python and Matlab)
- Fluency in English (both written and spoken)
- Positive attitude towards working in a collaborative environment
- Willingness to travel and conduct research abroad
- Applications from women are especially welcome

What we offer:

- ° Fully funded 4-year PhD position (immediate start)
- ° Cutting-edge experimental facilities and infrastructure
- ° Integration in a very young and lively research team of high international repute
- ° Collaboration with leading research institutions worldwide
- ° Stays in internationally recognized research centers or in industry.

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 Bilbao, Spain

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Deadline for applications: Open until the position is filled