

“NANOPHOTONIC BIOSENSORS FOR THE DIAGNOSIS AND CLINICAL MANAGEMENT OF BACTERIAL INFECTIONS AT THE POINT OF CARE (PHITBAC)”

Reference: PLEC2021-007739

Duration: 36 months

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Infections produced by multidrug-resistant bacteria are foreseen to cause the upcoming worldwide pandemic, already being today a major healthcare emergency with thousands of deaths every year. PHITBAC aims to introduce a new, disruptive, and versatile point-of-care nanobiosensor technology for the whole diagnosis and clinical management of bacterial infectious diseases. The groundbreaking diagnostic device will prove rapid detection of most relevant pathogenic bacteria, including an on-site identification of antibiotic resistance, and a personalized monitoring of antimicrobial therapy effectivity.

The PHITBAC project is carried out through a public-private Spanish partnership that includes two research centers of excellence, the Catalan Institute of Nanoscience and Nanotechnology (ICN2, Barcelona) and the National Biotechnology Center (CNB-CSIC, Madrid), two reference public hospitals in infectious diseases, the University Hospital Vall d’Hebron – VHIR and Hospital del Mar – IMIM in Barcelona, and two fully-established innovation companies, Biomedal S.L. (Sevilla) and Aptus Biotech S.L. (Madrid).

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