



GRAPHENE FLAGSHIP

As of the 1st of April 2016, following a three-year ramp up phase that started in 2013, the **Graphene Flagship**, the world's premier research initiative devoted to the scientific and technological challenges related to graphene and related layered materials and hybrid systems, entered the **Core One phase**.

Moving forward into the first two-year Core Project of the Horizon 2020 Phase with pledged EC funding of €45m per year, the Flagship has grown its network embracing 152 partners in 23 countries, one third being industrial partners.

The CIBER-BBN is participating in this initiative through **Dr. Rosa Villa** from the **GBIO group** at the **National Center of Microelectronics** (P.I. Jordi Aguiló), whose contribution is mainly in the **Biomedical Technologies Work Package** of the *Health, Medicine and Sensors Division*.

The overall objectives of the Work Package are focused on the development of implants and therapeutic elements for specific clinical outcomes in neurology, ophthalmology and surgery; and the design of a future generation of medical implants integrating recording and stimulation functionalities together with therapeutic capabilities. The Work Package research program consists of three main areas of research activity:

- Materials Engineering
- Implant Technology & Engineering
- Functionality and Therapeutic Efficacy

Initially, research will be performed simultaneously in all three areas of activity with the intention to integrate them into the development of novel implant technologies with therapeutic capabilities. A strong emphasis is placed on future clinical translation of these technologies as well as on the transfer of technologies from research to prototypes and, ultimately, on to clinical products.

Work Package Leader: Professor Kostas Kostarelos, The University of Manchester, United Kingdom

Work Package Deputy: Professor Jose Garrido, ICN2 Catalan Institute of Nanoscience and Nanotechnology, Spain

Funding (to CIBER-BBN): 379.790€

Duration: 2 years (April 2016-March 2018)

<http://graphene-flagship.eu/project>