

Description

Concerning the EU4H-2022-PJ-14 call, the University of Coimbra research group [Biophysics Institute](#) is aligned with the call goals, aiming to contribute to the inter-speciality cancer training programme through the upskilling and re-skilling of healthcare professionals in the area of Radiation in clinical practice.

[Biophysics Institute](#) is a Coimbra's Faculty of Medicine Institute and research group, with academic and research expertise in ionizing radiation specifically electromagnetic ionizing radiation, beta and alpha emitters using in vitro and in vivo models. Lead by professor Filomena Botelho ([ORCID 0000-0001-7202-1650](#)) comprises basic researchers, clinicians, biomedical engineerings, medical imaging and radiotherapy technologists, and statisticians. With expertise in translational research, it's main focus has been on the optimization of the advantage of ionizing and non-ionizing radiation biologic effects on the improvement of diagnostics, treatment and theranostic; the development of evidence-based research to understand/clarify the effects of ionizing radiation low doses; and also to understand physiopathology and response to treatment through translational man-lab-man models. The team has been part of European Cooperation Projects (<https://www.onconet-sudoe.eu/en/>), MED4Youth project (<https://med4youth.eu/>) and COST Action (CA21152) (<https://www.cost.eu/actions/CA21152/>) related with nutrition, oncology, cancer survivorship and patient literacy from the childhood to adulthood. The research team group was recently recognized for the work developed in these research topics also through the distinction of Professor Ana Margarida Abrantes ([ORCID 0000-0003-4185-7871](#)) with the L'Oréal Portugal Honor Medals for Women in Science 2020 award related with Risk stratification in response to ionizing radiation in Hereditary Breast and Ovarian Cancer Syndrome associated with the Portuguese founder mutation associated with BRCA2 gene.

The research performed in the Biophysics Institute comprehends a multidisciplinary approach, working in close collaboration with different medical departments at the Coimbra University Hospital and Coimbra Oncology Hospital, as well as patient advocacy groups. Another important collaboration is with Coimbra health School, a WHO Collaborating Centre for Radiation Protection and Health that aims to contribute to WHO's global activities on advocacy and awareness raising about radiation protection and safety of patients and health workers; to support WHO's activities related to the development and dissemination of educational materials for health professionals that work with radiation and also to support the work of WHO to advance radiation protection and safety in medical settings in Portuguese-speaking countries.

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