



**Comprehensive STRategies to tackIE malignant tumors:
from nanomedicine and theranostic to precision medicine**

PhD “Marie Skłodowska-Curie” Positions (ESR Early-Stage Researchers)

We are looking for 8 ESRs to work on **STRIKE**—HORIZON-MSCA-2021-DN-01 project. STRIKE aims to develop a research and training network in nanomedicine/precision medicine, rising a new generation of entrepreneurial and innovative multidisciplinary young researchers. STRIKE will provide enhanced career perspectives in academic and non-academic sectors for 8 ESRs in highly innovative fields by interdisciplinary mobility among 12 institutes/companies in 8 EU countries. The selected candidates will receive a gross salary in accordance with the MSCA regulations for early-stage researchers (ESRs).

FOLLOW THE LINK TO APPLY: <https://strike.unime.it/>

The call will open on EURAXESS on 8th March 2023 (deadline 23 April 2023). In details:

Projects		Project Description
1	University of Messina, Italy Supervisor Prof. Anna Piperno https://www.unime.it .	Development of smart magnetically controlled MNPs (magnetic nanoplatforms) for osteosarcoma treatment. The candidate should have preferably a M.Sc in Chemistry or related topics.
2	National Research Council of Italy . Supervisor Dr. Monica Montesi https://www.istec.cnr.it	Biological evaluation of new magnetic nanotherapeutics (NanoTher) in 2D and 3D scaffold-based in vitro osteosarcoma models. The candidate should have preferentially a M.Sc. in Biology, Biotech or related topics.
3	Maynooth University, Ireland Supervisor Dr. Diego Montagner https://www.maynoothuniversity.ie	Design, synthesis, characterization and interaction with magnetic nanoplatforms of Pt(IV) pro-drugs selective for osteosarcoma cancer. The candidate should have a M.Sc. or 4 years BC in Chemistry or related topics.
4	Palacký University in Olomouc, Czechia Supervisor Dr. Vaclav Ranc https://www.upol.cz/en/	Magnetic nanostructured composites for a targeted drug delivery. The candidate should have a M.Sc. in Chemistry.
5	Nantes Université, France Supervisor Prof. Dominique Heymann https://www.univ-nantes.fr/	Dormant cells in OS: biological characterization and therapeutic targeting. The candidate should have a M.Sc. in Biology or related topics.
6	Nanotech Solutions Sociedad Limitada, Spain , Supervisor Dr. Francisco J. Teran https://www.ntsol.es/	Exploiting nanomagnetism for improving intratumoral drug delivery. The candidate should have a M.Sc. in Physics or Engineering or Nanotechnology.
7	Cogentech Società Benefit S.r.l., Italy , Supervisor Dr. Nina Offenhäuser https://www.cogentech.it/index-en.php .	Development of MB based purification of biomarkers from liquid biopsy for early detection of cancer in BRCA+ subjects. The candidate should have preferably a M.Sc. in Biology or related topics.
8	Medical University of Vienna, Austria . Supervisors: Dr. Claudia Kuntner-Hannes www.meduniwien.ac.at	Radiolabeling and in vivo evaluation of pharmacokinetics of labeled drugs or drug carriers. The candidate should have preferably a M.Sc in Chemistry or related topics.

**Ph.D “MARIE SKLODOWSKA-CURIE” POSITIONS (ESR N.2) AT CELL/MATERIAL
BioLAB INSTITUTE OF SCIENCE, TECHNOLOGY AND SUSTAINABILITY FOR CERAMICS
(ITALY)
(www.istec.cnr.it)**



**Funded by
the European Union**

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Project: **101072462—STRIKE — HORIZON-MSCA-2021-DN-01**

Research topic: Biological evaluation of new magnetic nanotherapeutics (NanoTher) in 2D and 3D scaffold-based *in vitro* osteosarcoma model.

ESR N.2 Objectives:

- Definition of the cell/NanoTher interaction and the therapeutic efficacy *in vitro*.
- Through the new concept of “tumor engineering” it will develop a complex and advanced 3D scaffold-based culture model that mimics *in vivo* osteosarcoma microenvironment as more predictive preclinical relevant cancer models for the biological validation of the new NanoTher.
- Validation of the efficacy of the magnetic control for NanoTher localization and drug release.
- Selection of the most promising magnetic NanoTher for the *in vivo* study.

ESR will participate in specific training courses on the Applied Biology and Experimental Medicine PhD program as well as in training meeting focused on IPR management and soft skill and summer and winter schools organised by the STRIKE project.

During the mobility periods, ESR N.2 will gain experience with imaging techniques, with *in vivo* evaluation of pharmacokinetics, with xenograft models, with the synthesis of metal-based drugs and with the basic principles of magnetism and on the devices for remote control of nanoparticles.

N. 1 AVAILABLE POSITION (3 years PhD program) - Starting Date October 2023

We are seeking an enthusiastic and highly motivated young scientist with M.Sc. in Biology or Biotechnology or related topics.

Contact: Dr. Monica Montesi – Tel. +39 0546 699771; monica.montesi@istec.cnr.it