

Put simply...

WP1 Improving PTM detection by employing nanomaterials and biomaterials

→ Aptamers, DNA; PEDOT, AuNPs, DNAzymes, magnetic beads, electrocatalytic beacons

WP2 Early multi-cancer detection by biosensors based on DNA and aptamer microarrays

→ Chronocoulometry, electrocatalysis, electrochemiluminescence, FET;

WP3 Validation of the developed devices under strict clinical protocols

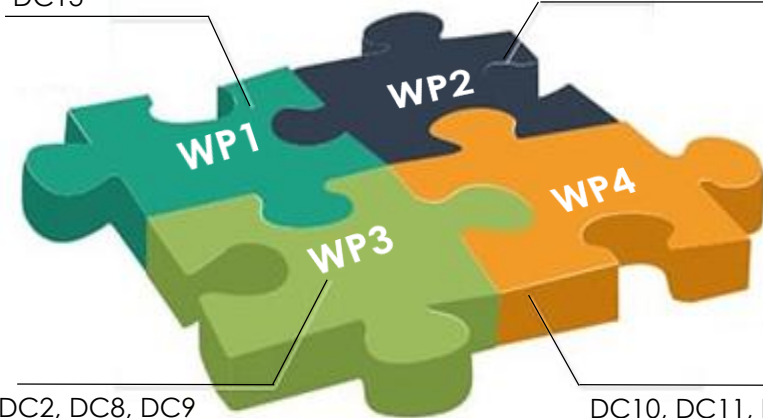
→ Diagnostic tests, controls, statistics.

WP4 Understanding the social aspects of cancer screening and communication

→ Patients, payers, commissioners and general public

DC1, DC3, DC4,
DC5, DC6, DC7
DC13

DC1, DC3, DC4,
DC5, DC6, DC7
DC13



DC2, DC8, DC9

DC10, DC11, DC12

Project details

Scientific Training for Post-Translational Modification Detection in Cancer Screening

Call identifier: **HORIZON – MSCA – 2023 – DN**

Grant agreement number: **101169504**

Acronym: **STRIM**

Duration: 48 months

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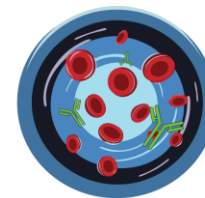
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The STRIM

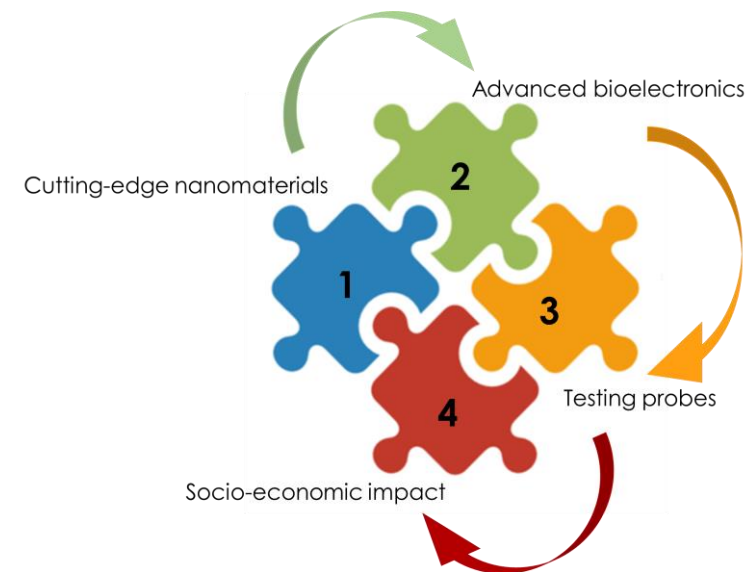


STRIM

Scientific Training for Post-Translational Modification Detection in Cancer Screening

Horizon – MSCA – 2023 - DN

Early Detection - Lifesaving Innovation



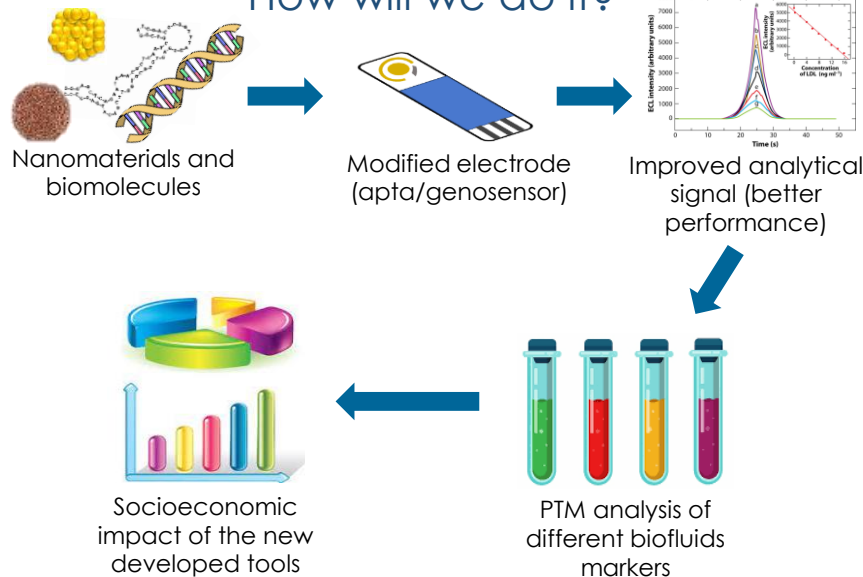
What is STRIM?

STRIM is a highly interdisciplinary consortium providing comprehensive training in the science, technology, and socio-economic aspects of bioelectronic tool development for rapid and accurate multi-cancer detection, leveraging advanced post-translational modifications (PTM) of biofluid markers.

Bioelectronics: a reliable path

The STRIM project will develop portable bioelectronic (aptasensors and genosensors) for early and decentralized multi-cancer detection, harnessing the properties of advanced nanomaterials to create fast and efficient cancer screening tools. Bioelectronics represent an economical and easy-to-use alternative for diagnostics

How will we do it?



Meet our projects

DC1 Electrocatalytic microarray biosensors for early diagnosis and prognosis of cancer
 Aarhus University
 Assoc. Prof. Dr. Elena Ferapontova
 Prof. Karina Dalsgaard Sørensen



DC2 Electrocatalytic approaches to high sensitivity PTM detection of cancer metastatic state and its therapy efficacy
 Aarhus University
 Assoc. Prof. Dr. Elena Ferapontova
 Prof. Karina Dalsgaard Sørensen



DC3 Ultrasensitive detection of Methylated DNA cancer biomarkers by direct (label free) electrochemiluminescence
 Dublin City University
 Prof. Dr. Robert Foster



DC4 High throughput multi-analyte microfluidics devices for PTM based screening
 Dublin City University
 Prof. Dr. Robert Foster



DC5 Targeting aberrant O-glycosylation with aptamers for cancer diagnostics
 Universidad de Oviedo
 Prof. Dr. María Jesús Lobo-Castañón



DC6 Aptamer microarrays for glycoprofiling of cancer biomarkers
 Universidad de Oviedo
 Prof. Dr. María Jesús Lobo-Castañón



DC7 Stable bioelectrodes for ultrasensitive electrochemical sensors
 Leibniz Universität Hannover
 Prof. Dr. Boris Chichkov



DC8 Multiplexed microarrays using new electrode-material for enhanced cancer screening
 Zimmer and Peacock Ltd
 Dr. Even Zimmer and Dr. Sindre Sørpstad



DC9 Understanding the social aspects of cancer screening to promote adoption
 University Medical Center Rotterdam
 Prof. Dr. Harry de Koning
 Assist. Prof. Dr. Esther Toes-Zoutendijk



DC10 HTA decision models for evaluation of harms, benefits and cost-effectiveness of cancer screening interventions
 University Medical Center Rotterdam
 Prof. Dr. Iris Lansdorp-Vogelaar
 Assist. Prof. Dr. Esther Toes-Zoutendijk



DC11 Bioinformatic analyses to identify aberrant glycosylations and link them to clinical phenotypes
 Danish Cancer Institute
 Assoc. Prof. Dr. Elena Papaleo



DC12 A bioinformatic integrative framework to study aberrant glycosylation in the context of other biological data
 Danish Cancer Institute
 Assoc. Prof. Dr. Elena Papaleo



DC13 A bioinformatic integrative framework to study aberrant glycosylation in the context of other biological data
 Helmholtz Zentrum Dresden Rossendorf
 Prof. Dr. Larysa Baraban

