dioptra

ICCS EΠIΣEY

PROTAVIO
THE ART IN MULTIPLEXED ASSAYS

HELLENIC REPUBLIC
National and Kapodistrian
University of Athens

DUBRAVA
UNIVERSITY
HOSPITAL

AINIGMA

CAMBRIDGE MEDICAL ACADEMY
SHARING HEALTHCARE KNOWLEDGE

ARTHUR
LEGAL, STRATEGIES & SYSTEMS

hope
European Hospital and
Healthcare Federation

Computer Solutions

i2G Innovation 2Grow

Center for Social Innovation

German
Oncology
Center

CHU de Liège

FBIS
Fundación Burgos
por la Investigación
de la Salud

Med Uni Graz

SAINT SAVVAS
GENERAL ONCOLOGY
HOSPITAL OF ATHENS

Danish Committee
for Health Education

Netcompany

MARTEL innovate

TECREANDO

novelcore
RESEARCH & INNOVATION

UNIVERSITY OF IOANNINA

iLabs
Versatile Innovations

Region Syddanmark

Sphynx

UKC MARIBOR

TeraGlobus
SAVE THE EARTH

SMARTSOL

dioptra

Revolutionising Colorectal Cancer Screening:
**Holistic, Personalised, Accessible**

dioptra-project.eu

Our mission

The mission of DIOPTRA is to use new technologies for **colorectal cancer (CRC) risk assessment, screening, and progression** while incorporating lifestyle and environmental factors to develop a unified holistic protocol for primary CRC screening using network modeling and Artificial Intelligence-based Decision Support System.

What is colorectal cancer?

Colorectal cancer is a malignant tumor that forms in the tissues of the colon (the longest part of the large intestine) or of the rectum (the final part of the digestive tract). Colon cancer and rectal cancer are often grouped together because they have many features in common. In EU-27 countries in 2020, colorectal cancer accounted for 12.7% of all new cancer diagnoses and 12.4% of all deaths due to cancer. That made it the second most frequently occurring cancer (after breast cancer) and the second cause of cancer death (after lung cancer).
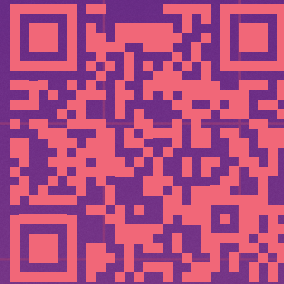
Scan the QR code to learn more about CRC

Our objectives

Identify a selective group of protein biomarkers obtained through liquid biopsy for the purpose of early screening of CRC and validate their regulatory function by means of protein network analysis.

Verify the implementation aspects of the proposed protocol in clinical settings by conducting **pilot studies in clinical sites.**

Utilise advanced AI tools to identify significant biomarkers and risk factors associated with CRC incidence in an objective and measurable manner, and refine the findings using standardised prospective data.

Assess the impact of an extended risk factor set on CRC and offer behavioural interventions through a user-friendly mobile tool to influence modifiable and preventable pre-malignant states.

Provide policy makers with evidence-based data to support potential policy reformation for CRC screening guidelines.

Explore the expandability capacity of DIOPTRA and establish a network with ongoing and future cancer initiatives to strengthen the newly launched Knowledge Centre on Cancer.