Impact

Consortium

Expected impact of TAXINOMISIS:

- New models for patient stratification to inform clinical decision-making.

- Accelerate the translation of biomedical and clinical research results to medical use.

- Increased cost-effectiveness of the novel concepts in comparison to already established practices.

- Increased research and innovation opportunities in this innovative industries-driven field, particularly small or medium-sized enterprises (SMEs).

Consortium logos

- MedLab & Intelligent Information Systems (MEDICAL TECHNOLOGY)
- UMC Utrecht
- MRI — Klinikum rechts der Isar, Technische Universität München
- UNIVERSITY OF BELGRADE SCHOOL OF MEDICINE
- imec
- BRFAA — BIOMEDICAL RESEARCH FOUNDATION ACADEMY OF ATHENS
- UNIVERSITY OF OXFORD
- ZORA BIOSCIENCES
- Tays — Tampere University Hospital
- nivel
- OSPEDALE SAN MARTINO — IST
- National and Kapodistrian UNIVERSITY OF ATHENS
- CLÍNIC BARCELONA Hospital Universitari
- BioIRC
- ENGINEERING
- ESCVS — The European Society for Cardiovascular and Endovascular Surgery ... brings together what belongs together!

TAXINOMISIS

A multidisciplinary approach for the stratification of patients with carotid artery disease

Our mission

Objectives

Innovation

At TAXINOMISIS,

Our goal is to provide our patients and their families with a new stratification concept for carotid artery disease

Risk factors

Age, gender, lipid profile, cardiac disease, hypertension

Lab-on-a-chip technology

Multiomics

Genomics, Methylomics, miRNAomics, Lipidomics, Proteomics, Pharmacogenomics

Agent based modeling of plaque progression

Multilevel risk prediction model for plaque rupture

Imaging modalities
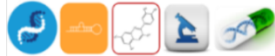
MRI CT Ultrasound

3D reconstruction tool
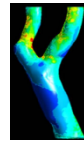
Data mining for risk stratification

Databases of retrospective & prospective data

Combination of simulation results

Info from all TAXINOMISIS phases

The 6 main objectives of the project are to:

1

Investigate the causal relationship of the major pathways and factors identified in symptomatic carotid artery disease

2

Study disease phenotypes and disintegrate them into endotypes according to specific pathobiological mechanisms

3

Integrate a computational model and an agent based model of plaque progression in the risk stratification tool

4

Perform a test for determining the presence of single Nucleotide Polymorphisms and predicting drug response

5

Evaluate the risk model of carotid artery disease stratification in an observational multicentre clinical study

6

Present a cost-effectiveness analysis

The scientific, clinical and technical excellence and innovation capacity will be achieved by:

The existing strong research and innovation base of multidisciplinary participating partners

Multicentre clinical study in 6 different countries → usability and user acceptance testing and validation of TAXINOMISIS approach

The identification of breakthrough risk factors and markers for carotid artery disease patient stratification

Improved stratification in terms of cost-effectiveness and improved quality of life

Multidisciplinary Collaboration

Pilot sites

Improved stratification

Risk factors & markers
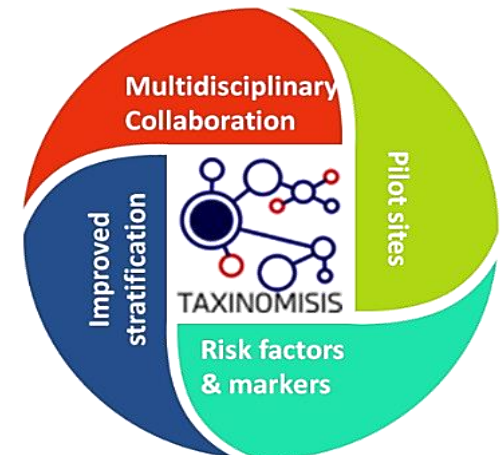
TAXINOMISIS

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