sysVASC is an EU funded research project to identify molecular targets for vascular disease treatment

sysVASC PROJECT: ABSTRACT

Asymptomatic vascular damage accumulates for years before patients are identified and subjected to therapeutic measures. The limited knowledge on early vascular disease pathophysiology is reflected in the lack of therapeutic options. SysVasc aims to overcome this limitation by mounting a comprehensive systems medicine approach to elucidate pathological mechanisms, which will yield molecular targets for therapeutic intervention.

The consortium is based on established multidisciplinary European research networks, including specialists in pre-clinical and clinical research, omics technologies, and systems biology from research intensive SMEs and academia; partners synergistically provide access to an extensive number of selected population-based cohorts and associated datasets, cutting edge modeling and simulation methods, and established cardiovascular disease (CVD) animal models and patient cohorts. The coordinated application of these tools and know-how will identify pathophysiological mechanisms and key molecules responsible for onset and progression of CVD and validate their potential to serve as molecular targets for therapeutic intervention. To this end, the consortium will also use unique resources to evaluate molecular homology between the available model systems and human disease, which will yield reliable essential preclinical research tools to explore proof of concepts for therapeutic intervention studies and ultimately translate relevant results into novel therapeutic approaches. Collectively, SysVasc will identify and validate novel biology-driven key molecular targets for CVD treatment. Major scientific, societal and economic impact is expected including, but not limited to, providing a valuable resource to further CVD research, and enhance competitiveness of participating SMEs and European health industry in general by translating knowledge into "innovative services" in therapeutic target and drug research.

more information on **www.sysvasc.eu**

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KEY FACTS

- **Title: "sysVASC"**
  Systems Biology to Identify Molecular Targets for Vascular Disease Treatment
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- **Coordinator:**
  Medizinische Universität Graz (Austria)
  Prof. Burkert Pieske, MD
- **Partners:**
  - Mosaiques Diagnostics GmbH (Germany)
    Harald Mischak, MD, PhD
  - Helmholtz Zentrum München Deutsches Forschungszentrum für Gesundheit und Umwelt GmbH (Germany)
    Dr. Schmitt-Kopplin
  - University of Glasgow (United Kingdom)
    Christian Delles, MD
  - Institut national de la sante et de la recherche medicale (INSERM) (France)
    Joost P Schanstra, PhD
  - Baker IDI heart and diabetes institute holdings limited (Australia)
    Karlheinz Peter, MD, PhD
  - The University of Manchester (United Kingdom)
    Robert Stevens, PhD
  - University College Dublin, National University of Ireland, Dublin (Ireland)
    Prof. Walter Kolch, MD
  - Biomedical research foundation, Academy of Athens (Greece)
    Dr. Antonia Vlahou
  - Eberhard Karls Universität Tübingen (Germany)
    Dr. Florian Lang
  - Swiss Institute of Bioinformatics (Switzerland)
    Prof. Ioannis Xenarios
  - University of British Columbia (Canada)
    Prof. Dr. Chris Overall
  - Biocrates life sciences AG (Austria)
    Guido Dallmann, PhD
  - Eagle genomics limited (United Kingdom)
    Abel Ureta-Vidal, PhD, MBA
  - Services XS BV (Netherlands)
    Prof. Dr. Bart Janssen
  - Biolution GmbH (Austria)
    Dr. Iris Grünert
  - University of Plymouth (United Kingdom)
    Prof. Neil Avent
- **Contact:**
  sysVASC office:
  Dr. Claudia Thurner-Scheuerer
  Medizinische Universität Graz
  office@sysvasc.eu