The future of Personalized Health
Building bridges
Personalized Health and Related Technologies (PHRT) – Network
Today’s medicine is evolving fast. Rapid advances in life science and information technology allow us to collect and analyze enormous volumes of health data: clinical data, multi-omics data (e.g. genomics, proteomics, metabolomics, immunopeptidomics), data from biobanks, and health data collected by individuals (e.g. wearables). This has opened up the possibility of using each patient’s individual molecular makeup and unique characteristics as a basis for guiding medical decisions and restoring health.

The term "Precision Medicine" embraces this customization of medicine, with medical decisions and treatments being tailored to the individual patient. Making use of new technologies and data to optimize medical care for each individual is the ultimate objective. "Personalized Health", on the other hand, aims to use patient data for the benefit of the population at large. This involves identifying and tackling health risks at early stages, applying preventive and therapeutic measures, conducting research and creating technologies with benefits for human health.

The interdisciplinary research in these areas is characterized by high levels of data security and an emphasis on ethical and legal considerations.
PERSONALIZED HEALTH

PRECISION MEDICINE

DATA

ethical - legal - societal issues

ANALYSIS

RESEARCH

prevention

diagnosis

individualized treatment

data contributors

contributing technologies
What is PHRT?

Personalized Health and Related Technologies (PHRT) is a strategic focus area (SFA) of the ETH Domain.

The ETH Domain is a world leader in the development of technologies and data analysis. Through PHRT, it aims to support and drive transformation in Personalized Health by providing clinicians with access to ETH technologies in order to evaluate their potential contributions to clinical decision making. PHRT fosters the generation of multi-omics data and its subsequent integrated computational analysis in a secure IT environment.

The goals of the program include improving the quality of Precision Medicine by supporting earlier and better diagnosis as well as providing a choice of tailored therapeutic strategies for patients based on their particular biological makeup and other individual factors. PHRT achieves this by translating results from basic research into clinical applications. With its projects, PHRT is building interdisciplinary bridges between medicine & clinical research and the ETH Domain of science & engineering.

The PHRT program complements the efforts undertaken by other organizations such as the Swiss Personalized Health Network (SPHN) and the Swiss Data Science Center (SDSC).
Rethinking clinical research

Personalized Health and Related Technologies (PHRT) is a strategic focus area of the institutions that comprise the ETH Domain. PHRT’s goals include improving the quality of Personalized Health and Precision Medicine by providing a choice of individual therapeutic strategies for patients.

Through calls for proposals, PHRT funds interdisciplinary projects in education (doctoral and postdoc level), technology translation and research in order to foster the development of Precision Medicine and health research. PHRT connects hospitals and the institutions that make up the ETH Domain so that they can share and use health data across Switzerland.

Personalized Health and Related Technologies (PHRT)
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