

Research & project design for global challenges:

## Ca' Foscari Research Hub for Global Challenges

Ca' Foscari is highly committed in achieving excellence in research, developing international partnerships and funding promising researchers. Our 6 Research Institutes enforce this engagement by promoting a collaborative approach to research. More than 300 researchers are committing their expertise to solve global issues and to contribute to international research projects.

New ways of connecting to develop and give value to ideas:

## Research for and with the community

### PInK - Promoting Innovation and Knowledge

PInK is the knowledge transfer office of Ca' Foscari University of Venice. It facilitates collaboration between the university and external entities to leverage research outcomes. PInK supports innovation and regional production system development through consulting and training in industrial property protection, management, and utilisation. PInK also promotes joint research initiatives, patent development, and other research projects, drawing on the expertise of Ca' Foscari's research staff.

### Investing in research and knowledge transfer

Every year, Ca' Foscari University provides funding and support for top research, including departmental co-funding, investments in laboratories, interdisciplinary projects, and assistance for innovation and technology transfer.



### Research Hub for Global Challenges

+39 041 234 8313/7064/7079

global.challenges@unive.it

[www.unive.it/institutes](http://www.unive.it/institutes)



Ca' Foscari University of Venice

+39 041 234 8146

[pink@unive.it](mailto:pink@unive.it)

[www.unive.it/pink](http://www.unive.it/pink)

PInK - Knowledge Transfer Ca' Foscari



Ca' Foscari  
University  
of Venice

Research Area

PInK  
PROMOTING INNOVATION  
AND KNOWLEDGE



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# Health at Ca' Foscari

Research and project design  
for health and social care

# Health

## Knowledge and expertise at Ca' Foscari

### Health care policies, economics and management

#### **Statistical, economic and social-science methodology applied to decision-making processes**

Modelling of economic, social and legal phenomena e.g., ageing, long-term care, inequalities.

Modelling of territorial governance and social innovation.

Analysis of customers and personnel satisfaction and needs.

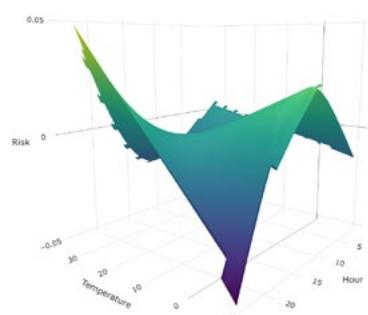
Analysis of health and care services and policies.

Public Information Systems.

#### **Strategic innovation analysis and planning applied to Healthcare Processes**

New organizational models in healthcare. Technology acceptance and team dynamics in the healthcare ecosystem.

Shared decision-making and co-production. Social and environmental sustainability of healthcare practices.



### Personalized medicine and care

#### **Global approach to prevention, diagnosis, treatment and monitoring of diseases**

Wearable devices for health monitoring. Non-invasive analysis of biomarkers in biological fluids such as urine, saliva and sweat.

Integrated systems of social and health care and tele-care.

### AI, health data analysis and digital law

#### **Interoperable/Explainable AI for Clinical Decision Support**

Development of understandable and trustworthy systems to support decision making in the clinical environment, using artificial and computational intelligence.

#### **Medical Image Analysis and proteomics**

to foster accurate diagnosis using advanced artificial intelligence methods.

#### **Privacy and data protection protocols**

Privacy-Aware Data Sharing model for Health, telemedicine and patient protection.



### Bioinformatics and Biomedicine

#### **Modelling and simulation of complex biological systems**

Analysis and comparison of complex biological and/or ecological systems, identification of interactions and properties for pharmaceutical or medical use.

#### **Protein mutation**

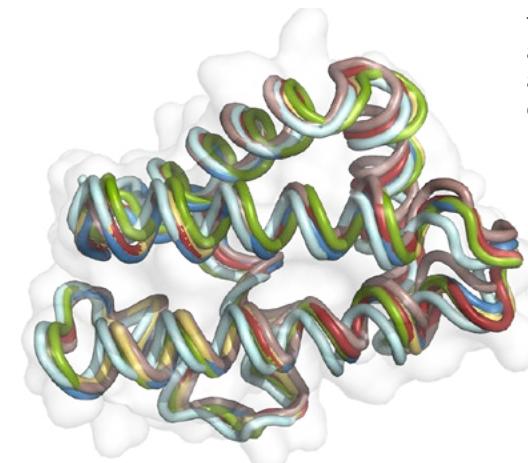
Computational approaches to detect or predict deleterious mutations.

### Precision medicine

#### **Development of novel computational and experimental methodologies to identify efficacious molecules for the treatment of diseases.**

Drug discovery: development of new biological and chemical compounds using combinatorial directed evolution approaches.

Drug design: de novo design and in silico optimisation of novel biological and chemical compounds.



### Climate, environment and health

#### **Local and global pollutant contamination**

Statistical and chemical-analytical methods to investigate the systemic distribution, toxicological mechanisms and clinical/epidemiological risks of air and water pollutants, and emerging pollutants such as PFAS, also including the use of electrochemical sensors and multisensory platforms.

#### **Effects of climate change on human, animal and planetary health**

Assessment of the shifts in disease patterns, biodiversity loss, ecosystem disruption, social and environmental determinants that influence public health, food security, and habitat sustainability.

#### **Safe and Sustainable by Design chemicals and materials according to the EU SSbD framework**

Early development assessment of human health and environmental safety of innovative chemicals and materials along their life cycle. Environmental sustainability assessment through LCA-based approaches and integration with socio-economic aspects.