



Cross-border pilot actions to boost innovation in the health system through data sharing

















# CROSSBORDER PLATFORM FOR EFFICIENT MANAGEMENT OF BIOBANKS – C3B









СЗВ

Progetto standard co-finanziato dal Fondo europeo di sviluppo regionale Standardni projekt sofinancira Evropski sklad za regionalni razvoj

















## **PROJECT PARTNERS**



LP: Italian Liver

Foundation - NPO



PP4: ULSS3 Serenissima - Regional Center

for Diagnostic, Prognostic and Predictive Biomarkers (CRIBT)



PP2: Blood Transfusion

Center of Slovenia



PP5: Univesity of Lubiana, Faculty of

Medicine



PP3: University of Trieste

Department of medical

sciences



PP6: Experteam srl

















## **ASSOCIATED PARTNERS**

Ministry of Health of Republic of Slovenia

Region Friuli Venezia Giulia, Directorate for Healthcare, social policies and disabilities

Agency for medicinal products and medical devices of the Republic of Slovenia

PROJECT BUDGET

**FESR** 

**MONTHS** 

**796.195,66 €** 

676.766,31 €

18





















Identification and adoption of joint solutions for the **harmonization of cross-border biobanks**, through an inter-institutional collaboration, that will lead to the creation of the first pilot cross-border biobank of biological samples.















## BIO - BANK

2003 - 2022

















The BIOBANK is a collection of biological material and **ASSOCIATED DATA**, **voluntarily donated** by groups of individuals, that are stored in an organized system and at low temperatures for **USE in RESEARCH**.









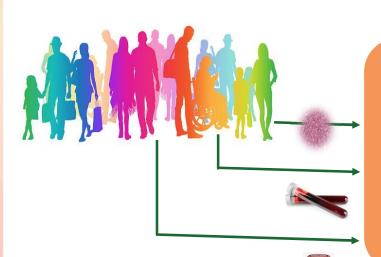








## FROM THE COMMUNITY FOR THE COMMUNITY



### **BIOBANK**

- Collection of samples and data
- Storage
- Distribution

**RESEARCH RESULTS** 

**Drugs Diagnosis** 

PERSONALIZED MEDICINE



A SERVICE FOR THE COMMUNITY













**INNOVATION** 







### **BIOBANKS TO BOOST RESEARCH AND HEALTHCARE**

	☐ Staff ☐ Informed consent ☐ Access procedure ☐ Response time ☐ Protocols & standard ☐ Networks & PPS ☐ Participant involvement ☐ Quality management	Type of population Type of patients Controls Amount Events Efficacy endpoints Inclusion criteria	☐ Type of material ☐ Quality ☐ Sample annotation ☐ Amount ☐ Sample frequency ☐ Uniqueness ☐ FAIRness ☐ Storage ☐ Allowed use	Type of data Data linkages Quality Amount Data frequency Uniqueness FAIRness Storage Allowed use	User support & consultancy Participant service Sample/data analyses Sample and data management 3rd party training
Value categories	Organisation	Participants	Samples	Data	Services
	Education	Output	Economic value	Brand value	(Re)use
	☐ Education of staff ☐ Education of professionals ☐ Education of users ☐ Education of general public ☐ Internships & students ☐	Prevention Diagnostics (Clinical) guidelines Treatments Research papers Patents Research projects Clinical trials Grants Consortia	□ Nr. of jobs/FTE □ Nr. of spin-offs □ Return on investment □ Resource savings □ Risk reduction □ Pricing □ Budget □ Revenues □ Infrastructure	Communication resources Network Exposure Brand awareness Image Customer satisfaction	□ Nr. of requests □ Nr. of issued samples and data □ % of issued samples and data □ Nr. of users □ % returning users □ Nr. of supported projects □

#EURegionsWeek















#### BIOBANKS TO BOOST RESEARCH AND HEALTHCARE



#### Genetic and molecular causes of heart defects

Scientists have discovered that the cell powerhouses influence the arrangement of organs.



#### Combatting brain tumours with immunotherapy

Scientists are using geneticallymodified natural killer cells to combat brain tumours.



#### Genome atlas for pancreatic cancer

A team of scientists has successfully created a "roadmap" of gene changes in cancer cells.



#### Intermittent fasting no more successful than conventional dieting

Is there any truth to all the hype? A research team has proven that intermittent fasting can help people to lose weight.



therapy

Clonal haematopoiesis has no negative impact on treatment outcome.



term damage and signs of leg vein

thrombosis.



https://www.ppmm.de/resear ch/successful-projects/?L=1

















## **ACTIVITIES IN C3B**

- Mapping biological sample collections
- A model of questionnaire for conducting a survey on interregional biobanks
- Identification of at least 6 interregional centers for samples collection
- Shared SOPs for the collection, sample processing, storage, and distribution

- Organizational SOPs facilitating the starting and appropriate management of new research biobanks
- Training of health and research personnels
- A shared plan to regularly update procedures and models

#EURegionsWeek



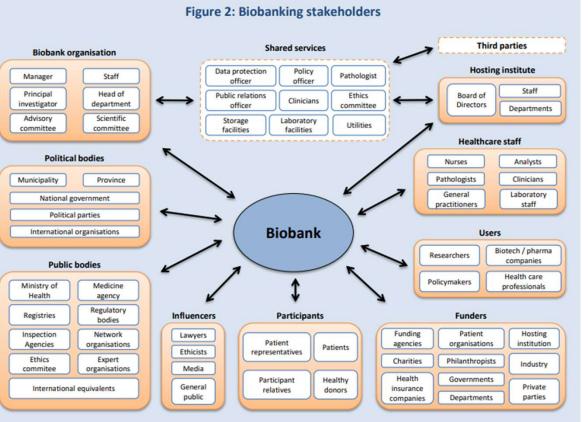












Taken from BBMRI.nl Susteinable Biobanking. The financial dimension, 2019, Rogier van der Stijl, Lisette Eijdems.

#EURegionsWeek





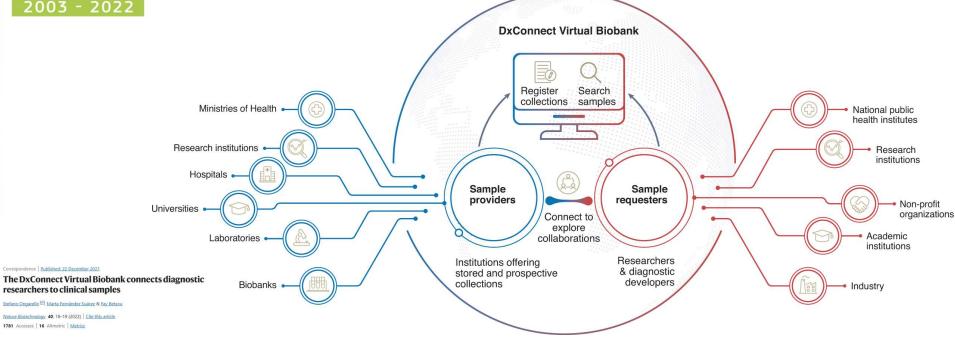








**GLOCAL** 















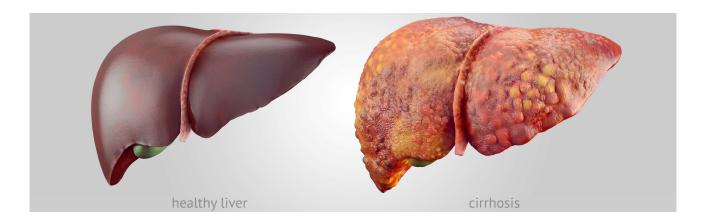




## **PILOT STUDY**

LIVER DISEASE

**HEALTHY BLOOD DONORS** (transfusion center)













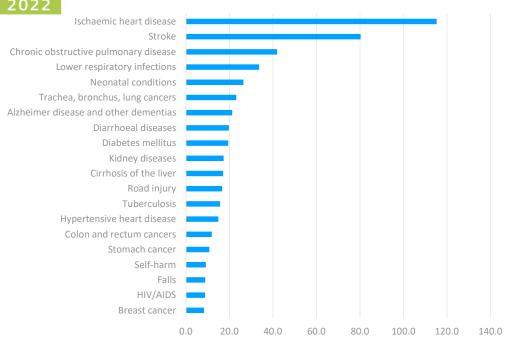






## WHY?

2003 - 2022





THE 20 MOST COMMON CAUSES OF DEATH WORLDWIDE 2019

2 MILLION DEATHS PER YEAR
WORLDWIDE, 1 MILLION DUE TO
COMPLICATIONS OF CIRRHOSIS AND
1 MILLION DUE TO VIRAL HEPATITIS AND
HEPATOCELLULAR CARCINOMA

Crude death rate (per 100 000 population)

















### **UNMET CLINICAL NEEDS**

Identification and stratification of population at risk

Classification, prognosis prediction

Early diagnosis

Personalized treatment

Use of non-invasive or minimally invasive techniques for diagnosis

Therapeutic response predictive models



Bruix, J.- J. Hepatol. -2015











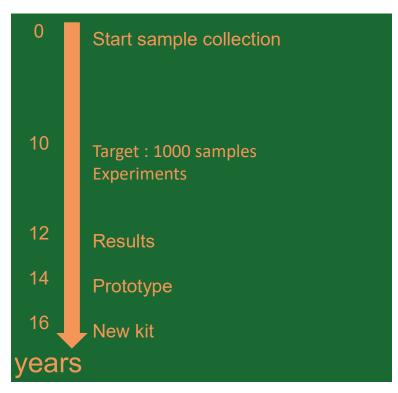




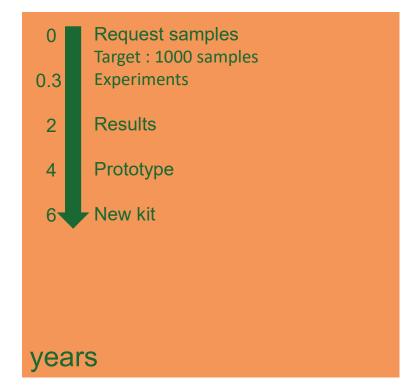




### SCENARIO 1: NO BIOBANK



### SCENARIO 2: YES BIOBANK



















## **THANK YOU**

Devis Pascut

- https://www.ita-slo.eu/it/c3b
- <a href="https://www.fegato.it/piattaforma-transfrontaliera-per-una-efficiente-gestione-delle-biobanche/">https://www.fegato.it/piattaforma-transfrontaliera-per-una-efficiente-gestione-delle-biobanche/</a>
- https://www.facebook.com/C3Binterreg/?notif\_id=1663599514501384&notif\_t=profile\_plus\_rollback&ref=notif

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