











**22 SEPTEMBER 2023** 



Espace Biobanking Pavillon I Hôpital Pasteur 1 30 Voie Romaine Nice, France

TRANSFORMATIONAL BIOBANKING,
EUROPE VS. CANADA, SUSTAINIBILITY, ETHICAL
ISSUES, EDUCATION, SHAPING THE FUTURE



#### PMCB Program (Toronto, Canada)

Princess Margaret Cancer Biobank (PMCB) is a multi-site, large-scale biorepository for human biospecimens and associated clinical data. PMCB offers retrospective and prospective study-specific banking tailored to research needs, including: study protocol development, biospecimen procurement and processing, long-short-term cryostorage and digital pathology services such as Tissue Microarray (TMA) construction, quantitative image analysis of TMA sections, Laser Capture Microdissection (LCM), digital slide scanning, pathological/clinical analysis for various tumour sites and DNA/RNA extraction. PMCB provides access to retrospective sample collections such fresh, frozen and formalin fixed paraffin embedded (FFPE) surgically resected tissue, biopsy cores, compartmentalized blood components (serum, plasma, buffy coat, PBMC) and various body fluids (urine stool and saliva), along with pathology annotations that are banked in long-term storage for future research.



#### McCain GU BioBank (Toronto, Canada)

The McCain GU BioBank (MGB) is an investigator-initiated biobanking program that collects and archives biological specimens and data obtained from consenting urologic oncology patients and stores them for future research purposes. MGB was founded in 2008 to facilitate the discovery and validation of novel biomarkers, aiming to achieve personalized medicine in Urology. The promise of liquid biopsies has further enhanced the relevance of this initiative. MGB has mapped relevant clinical states for urologic cancer cohorts and controls, and established a systematic and clinically-integrated approach to biospecimen procurement. All consenting patients provide specimens prior to, during and following their treatment(s). Each sample collection point (Clinical State) is dictated by detailed flow diagrams that have been developed for each cohort.



**Dr. Neil Fleshner, MD, MPH, FRCS(C)**Director and Founder, McCain GU BioBank
Director, UHN Biospecimen Services



**Heidi Wagner, PA, BSC**Staff Scientist II, Head of Operations, McCain GU BioBank and UHN Biospecimen Services



### Nice Côte d'Azur Biobank (BB-0033-00025) (Nice, France)

The NCAB (www.biobank-cotedazur.fr) is a biobank which focused its activity in collecting and sharing samples from respiratory diseases patients. Smaller collections concern skin, ocular and thyroid diseases. This biobank has been recently integrated in the IHU RespirERA which is devoted to non tumoral and tumoral thoracic diseases. The NCAB is certified and accredited according to the ISO9001 and ISO 20387 norms. Collections include tissue samples (frozen and FFPE), biofluids (whole blood, plasma, PBMCs serum and urines) and derived products (extracted DNA/RNA). Different platforms are integrating in the biobank including a TMA service, digital pathology resource, molecular biology and immunohistochemistry opportunities and liquid biopsy activities (both cfDNA and CTCs assessment). The team of the NCAB is responsible of the MSc Biobanks and Complex Data Management and of the MSc European Molecular Pathology at the Côte d'Azur University, Nice, France.



Dr. Paul Hofman, MD, PhD
Director IHU RespirERA
Director and Founder, Nice Côte d'Azur Biobank
Professor of Pathology, Nice Medical School, Université Côte d'Azur
Surgical Pathologist, Clinical and Experimental Pathology
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**Dr. Marius Ilié, MD, PhD**Professor of Pathology, Nice Medical School, Université Côte d'Azur Surgical Pathologist, Clinical and Experimental Pathology Laboratory/Biobank Côte d'Azur, Nice University Hospital IHU RespirERA



Dr. Charles-Hugo Marquette, MD, PhD
Professor of Pulmonology, Nice Medical School, Université Côte d'Azur
Head of the Pulmonology Department, Nice University Hospital
Member of the Scientific Council, Nice Côte d'Azur Biobank
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IHU RespirERA



Dr. Sylvie Leroy, MD
Professor of Pulmonology, Nice Medical School, Université Côte d'Azur
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Dr. Jonathan Benzaquen, MD, PhD
Assistant Professor of Pulmonology, Nice Medical School, Université Côte d'Azur
Member of the Scientific Council, Nice Côte d'Azur Biobank
Clinical pathway for liquid biopsies in thoracic oncology at the CHU Nice Research into innovative circulating biomarkers
IHU RespirERA



**Dr. Hervé Delingette, PhD**Program Director of Excellence Initiative, Université Côte d'Azur
Research Director, INRIA
Chair holder 3IA Institute - Medical image analysis, computational physiology, and machine learning
IHU RespirERA



### Cochin Biobank (BB-0033-00023), Paris, France

INSERM UMRS 1138, 75006 Paris, France

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Cochin hospital is an expert site of thoracic cancer management and our biobank collects multiple biological specimens (blood, surgical samples and biopsies) from non-tumoral and tumoral thoracic diseases, with the corresponding clinical data. This biobank has been accredited in 2013 according to the ISO96900 norm and the ISO20387 norm is in progress. Collections include fresh samples for prospective studies, frozen and FFPE tissue samples and derived producted (extracted DNA and RNA). We work with one of the two national molecular platforms, SeqOIA, as part of the France Medicine Genomique 2025 plan. This biobank is part of Cancer Paris CARPEM Institute (Cancer Research for PErsonalized Medicine), a Comprehensive Cancer Center recently certified by the OECI (Organisation of European Cancer Institute).



Dr. Diane Damotte, MD, PhD
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**Dr. Audrey Lupo Mansuet, MD, PhD**Associated Professor of Pathology
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## **DIJON CGFL Biobank (Dijon, France)**

The CGFL biobank is a cancer dedicated biobank it focused its activity on Breast and Lung cancer, focused its activity in collecting and sharing samples from patients. Smaller collections concern colorectal and ovarian diseases. This biobank has been recently integrated in the IHU RespirERA for thoracic part. Collections include tissue samples (frozen and FFPE), and derived products (extracted DNA/RNA). Different services are available in the biobank: digital pathology services, quantitative image analysis, digital slide scanning, DNA, RNA extraction.



**Dr Valentin Derangère**Associated Professor of Histology
Biobank manager, DIJON CGFL Biobank



Dr François Ghiringhelli, MD, PhD
Director of UMR INSERM 1231
Head of TEAM 1, TIRECs: "Therapies and Immune REsponse in CancerS"
Director of early clinical unit CLIP2 INCA
Full Professor of Oncology, University of Burgundy
Genetic and Immunotherapy Medical Institute



#### Centre de Ressources Biologiques Humaines de Rennes (Rennes, France)

The CRB Santé was founded at Rennes University Hospital in 2001. The biobank was approved by Inserm in 2002 and by the national infrastructure organization (IBiSA) in 2007. It was awarded NFS-96900 certification in 2009. The biobank has played an active role in a number of initiatives to promote biobanks, as a member of several working groups, including the OECD, the Ministry of Research, the Ministry of Health, the French National Cancer Institute, the University Hospital Research and Innovation Committee, and the French standards organization (AFNOR). Since its creation, the CRB Santé activities and scope of intervention have steadily expanded, notably through the development of translational research activities by associated research teams; its integration into national and European organizations; an easier access to biotech start-ups and the pharmaceutical and diagnostics industries, as part of a reinforced valorisation policy.



**Dr. Bruno Clément, PhD**Research Director at INSERM
Institute of Nutrition Metabolisms and Cancer Rennes University
Member of the National Academy of Medicine



**Dr. Mireille Desille, PhD**IEngineer at Rennes University-Hospital, CRB-Santé
Biobank manager

# FIRST JOINT MEETING UHN (CANADA) – IHU RESPIRERA (FRANCE) BIOBANKS

8:30 AM - 8:40 AM

Welcome and introduction

# **SESSION**



8:40 AM - 9:15 AM

9:15 AM - 9:45 AM

9:45 AM - 10:00 AM

# **SESSION**



10:00 AM - 10:45 AM

10:45 AM - 11:15 AM

## Biobanking in Europe vs. Canada

- IHU RespirERA Thoracic Biobank (P Hofman, D Damotte, V Derengere) [Nice, Cochin, Dijon]
- McCain GU Biobank (N Fleshner, Toronto)
- Princess Margaret Cancer Center (H Wagner)
- ISO 20387 vs. CAP Accreditation (B Clément, P Hofman and H Wagner) [Rennes, Nice, Toronto]

Discussion (all)

Refreshments

## Biobank Sustainability

- Cost Recovery (B Clément, N Fleshner, H Wagner)
- Data Sharing (D Damotte, B Clément, V Derengere and N Fleshner)
- Philanthropy (N Fleshner)
- Business Models (MGB vs. France) (P Hofman and N Fleshner)
- Industry Relationships (B Clément, P Hofman and N Fleshner)
- Utilization (H Wagner)
- The green biobank concept (M Ilié)

Discussion (all)

# FIRST JOINT MEETING UHN (CANADA) – IHU RESPIRERA (FRANCE) BIOBANKS

## **SESSION**



11:15 AM - 11:45 AM

11:45 AM - 12:00 AM

12:00 AM - 1:00 PM

# **SESSION**



1:00 PM - 2:30 PM

2:30 PM - 3:00 PM

3:00 PM - 3:15 PM

## Future Initiatives in Biobanking

- Digital pathology, AI (H Delingette, M Ilié, P Hofman and N Fleshner, H Wagner)
- Living Biobanks (H Wagner)

Discussion (all)

**Lunch & Networking** 

## Ethical Issues in Biobanking-Education

- Consent / Recruitment (CH Marquette, J Benzaquen and H Wagner)
- Secondary Use (N Fleshner)
- Return of Results (N Fleshner)
- How to set up a new collection in 2023 (C Bontoux, K Washetine)
- Equity in Biobanking (N Fleshner)
- Patient Driven Engagement (CH Marquette, S Leroy, and H Wagner)
- Education (H Wagner and P Hofman)

Discussion all – white paper project (comparative point of view)

**Closing Remarks** 

