



MEDICAL UNIVERSITY
OF BIALYSTOK



BIOBANK

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Pioneering Infrastructure and
Practices for Personalized Medicine

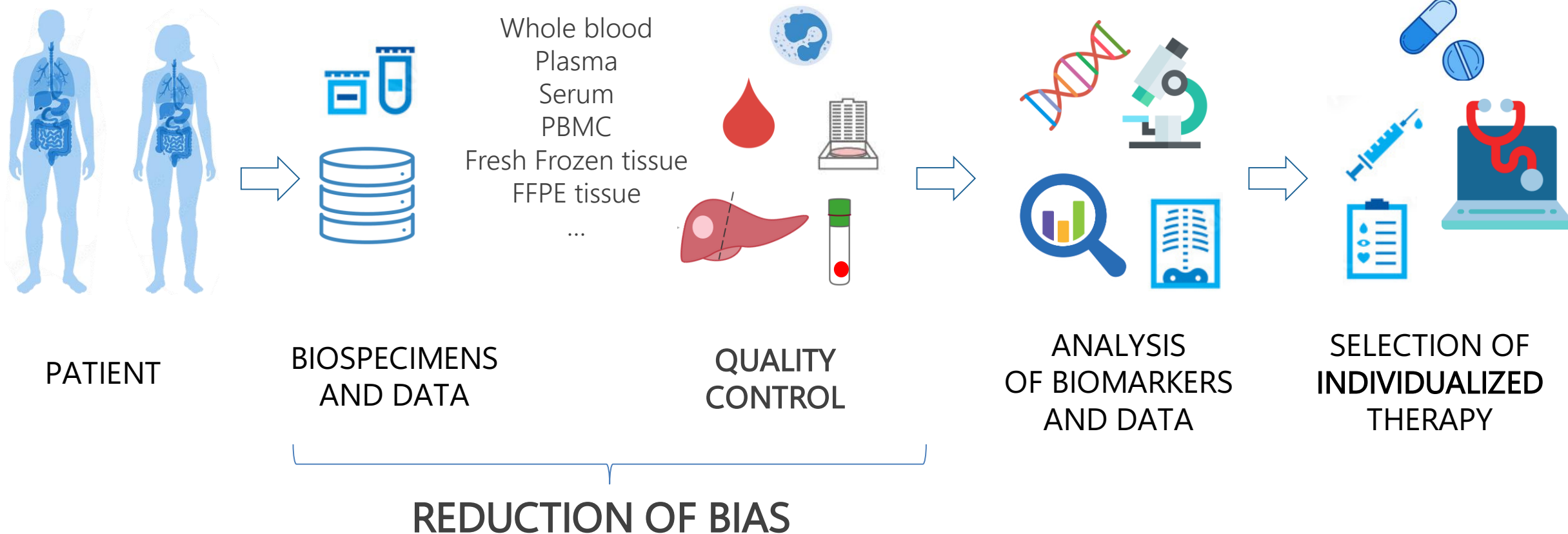
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Anna Michalska-Falkowska, PhD PharmD
MSc in Biobanking, QBRs(ASCP)
Clinical Pharmacy Specialist
Medical University of Białystok, Poland



BIOBANK

FUNDAMENTAL ROLE IN PERSONALIZED MEDICINE



ESSENTIAL ELEMENTS OF THE MUB BIOBANK

- Multidisciplinary Team,
- Quality Management System:
 - o Standard Operating Procedures,
 - o Risk and Opportunity Management,
 - o Internal and external audits,
 - o Standardized workflows of biospecimens and data collection
- Focus on sustainability:
 - o Regular SWOT Analysis,
 - o Identification of various groups of Stakeholders,
 - o Joint research and development projects within national and international consortia.



Clinical
data



Diagnostic
procedures



COOPERATION



Digital
Pathology



Omics
analysis



Bioinformatic
analysis



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MUB BIOBANK TEAM

- Q 6 Study Nurses having direct contact with Patients,
- Q 16 Laboratory Technicians,
- Q Director, Deputy Director of Quality Management,
Deputy Director for Administrative Affairs
- Q Trained in Biobanks at Indivumed GmbH, Indivumed Services,
Medical University of Graz, ISO-certified laboratories

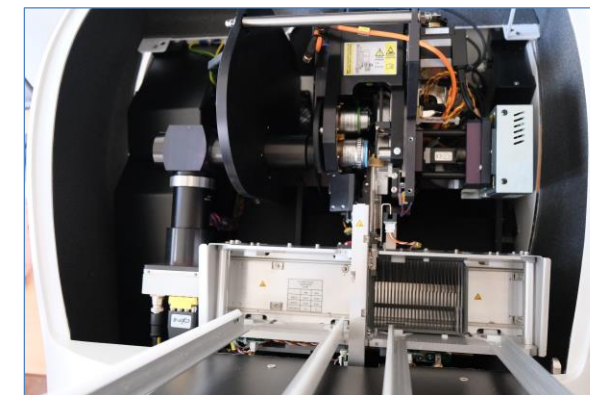


MULTIPLE ANGLES OF BIOBANKING



AUTOMATED BIOBANKING SYSTEM HAMILTON BIOS L5

- ☉ Fully automated process of receiving, storing, and issuing biological specimens,
- ☉ Compatible with LVL MX500 (500 μ l), Micronic 750 μ l tubes,
- ☉ The ability to store over 2.7 million samples,
- ☉ Redundant cooling system and Liquid Nitrogen backup for the **greatest possible safety**.



DIVERSE POSSIBILITIES

- ☉ Storage in -20°C , -80°C , -150°C freezers, and liquid nitrogen tanks (vapor phase)
- ☉ Implementation of Digital Pathology procedures,
- ☉ Supporting studies on diseases and population-based studies: **omics-grade biospecimens**
- ☉ Serving as resources for training healthcare professionals and researchers.

EXPERIENCE IN INTERNATIONAL PROJECTS AND COOPERATIONS

National Institute of Health - National Cancer Institute

Cooperation for deep analysis of genomics, transcriptomics, and Digital Pathology data.



Indivumed GmbH – CROWN Bioscience



Exchange of knowledge since 2015, Providing high-quality samples and validated data for International Partners running research investigations.

BC Platforms



MUB Biobank is one of the leading biobanks in BC Platforms Global Data Partner Network: BCRQUEST.com

Medical University of Graz, Austria



Providing lectures and workshops for International Biobanking and Education by MUB Biobank Deputy Director.

MOBIT Project



Creation of a **Reference Model** for personalized lung cancer diagnosis and development of unique software for the collection, integration, and analysis of omics and clinical data for the implementation of individualized therapy.

Shaping the Biobanking Standards



Deputy Director – Leader of ISBER Future Conferences Task Force, Member of the global ISBER Governance Committee, Co-Editor of the 5th Edition of ISBER Best Practices for Biorepositories.



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THANK YOU

Anna Michalska-Falkowska, PhD PharmD
MSc in Biobanking, QBRs(ASCP)
Clinical Pharmacy Specialist
Deputy Director of Quality Management Biobank
Medical University of Białystok, Poland
anna.michalska@umb.edu.pl
biobank@umb.edu.pl