Establishing a Pediatric Biobank model and expert centre within the Polish Biobanking Network (BBMRI.pl)

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Department of Pediatrics

- **Treatment**
- **Research**
- **Postgraduate Education**

![Graph showing the number of children treated from 2001 to 2016. The graph includes bars for ED and Ward.]
Diagnostics

**Unhealthy children**
- Respiratory tract diseases
- Urinary tract diseases
- Gastrointestinal tract diseases
- Invasive infections, Sepsis
- Lifestyle diseases
- Neoplasms
- Rare diseases

**Healthy children**
Diagnostics and Treatment

Invassive procedures

Diagnostics
Diagnostics

Unhealthy children
- Respiratory tract diseases
- Urinary tract diseases
- Gastrointestinal tract diseases
- Invasive infections, Sepsis
- Lifestyle diseases
- Neoplasms
- Rare diseases

Healthy children

Diagnostics and Treatment

Human subject bank

serum, blood, cerebrospinal fluid, pleural fluid, urine, stool, swab specimens, blood smears, bone-marrow smears, microbiological cultures, genetic testing
Additional medical data

Unhealthy children
- pre-hospitalization history, family interview
- history of the disease, treatment and recovery
- possible recurrence
- photos/X-rays
- laboratory tests (biochemical, serological/micobiological)

Healthy children
- serum, blood, cerebrospinal fluid, pleural fluid, urine, stool, swab specimens, blood smears, bone-marrow smears, microbiological cultures, genetic testing

Respiratory tract diseases
- Urinary tract diseases
- Gastrointestinal tract diseases

Invasive infections, Sepsis
- Lifestyle diseases
- Neoplasms
- Rare diseases
Research and Sharing

Human subject bank
As soon as the samples are no longer needed for individual patient, they are used for research, after each approval by the bioethics committee.
Doubts

Research and sharing of the samples is crucial for generating biomedical knowledge and improving (pediatric) health care

- balance of benefits against potential harms
- biobank model
- consent procedures, personalized assent procedure
- future use, re-contact procedure (opt-out or opt-in?)
- sharing
- quality-control
- medical data management, IT solutions
Polish Biobanking Network
Polish Biobanking Network

AIMs of the BBMRI.pl

Identification and characteristics of entities interested in joining the Polish Biobanking Network

Introduction of coherent IT solutions

Designing biobanks of biological material for scientific purposes, incorporating common solutions

Introducing a unified quality control system for all stages of national biobanks

Analysis of ethical, legal and social aspects of biobanking of human biological material in Poland

Establishment of the National Leading Biobank Center
Pediatric biobank model and expert centre within the Polish Biobanking Network (BBMRI.pl)

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