

Paediatric Pharmacology and Pharmacometrics Research Centre at the Children's University Hospital of Basel

Paediatric Pharmacology and Pharmacometrics Research to better characterize the effects of growth, development and diseases on how to optimize the use of medicines in neonates, infants and children.

Eckenstein-Geigy Professorship of Paediatric Pharmacology at University of Basel

Prof. Dr. med. Johannes van den Anker, Chair, and Prof. Dr. med. Marc Pfister, Vice-Chair, lead the recently formed Department of Paediatric Pharmacology at the University Children's Hospital of Basel (UKBB)/University of Basel. The creation of this department was made possible by a generous donation of the Eckenstein-Geigy Foundation. UKBB is the second largest free standing university children's hospital in Switzerland and its researchers publish around 150 scientific articles per year.

The Department of Paediatric Pharmacology consists of a clinical research center supported by a computer modeling and simulation lab for optimal design and analysis of clinical studies. The focus of the conducted investigation is on translational and clinical research in developmental pharmacology and paediatric clinical trials using research tools such as pharmacoepidemiology, pharmacogenetics, metabolomics, pharmacometrics and systems pharmacology.

The overarching goals of this new research center are to

- 1 train and mentor the next generation of clinician-scientists, clinical pharmacologists, pharmacometricians, and other researchers in paediatrics,
- 2 generate new scientific insights and publish research articles in top tier journals,
- 3 advance the scientific disciplines of paediatric pharmacology, systems pharmacology and pharmacometrics,
- 4 facilitate research and development of new medicines in paediatrics,
- 5 optimize utilization of therapeutics in paediatrics, and
- 6 help/benefit sick children and their parents.

As an example UKBB will be one of only four European paediatric pharmacology centers providing a Master's Degree in paediatric pharmacology.

The Department of Paediatric Pharmacology and its research center will be one of the top three leading paediatric pharmacology centers in Europe and will generate a worldwide network of collaboration to further improve the use of safe and effective medicines in paediatric patients.

We will provide a broad range of services to pharma and biotech companies, academic centers, hospitals, and other institutions in the health care space.

Opportunities for joint collaborations include:

- 1 preparing Paediatric Investigational Plans (PIPs),
- 2 designing and conducting innovative studies in paediatrics,
- 3 developing new assays for investigational compounds,
- 4 applying pharmacometric, pharmacogenetic, and/or metabolomic approaches to understand variability in drug response in paediatrics,
- 5 identifying and quantifying drug-drug interactions in pediatrics,
- 6 optimizing dosing/utilization of therapeutics in paediatrics,
- 7 applying disease models to better characterize disease progression and effects of therapeutics on disease progression, and
- 8 developing bedside decision support tools for paediatricians.

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