

PAWEŁ BARANCZEWSKI, PhD, Assoc Prof

Gustav IIIs Boulevard 29, SE-16973 Solna, Sweden

+46-707467894 • p.baranczewski@gmail.com

GROUP LEADER & ADME/PK PRINCIPAL SCIENTIST

Docent (Associate Professor) in preclinical drug development. 14 years of industrial experience within the area of drug discovery and development. Particular expertise in ADME, pharmacokinetics (PK) and pharmaceutical profiling of drug compounds. Demonstrated ability to set up and run highly functioning laboratories. Hands-on experience with in vitro ADME, in vivo PK and pharmaceutical profiling assays, PBPK simulations and PKPD modelling. Skilled at developing assays and methodologies. More than two decades of experience with liquid chromatography and mass spectrometry (LC-MS/MS) technique.

Absorption, Distribution, Metabolism & Excretion (**ADME**) • Laboratory Design & Startup • Assay and Methodology Development and Validation • **Drug Metabolism** • **Drug Transporters** • Cell Culture • **Physiologically Based Pharmacokinetics (PBPK)** • **Pharmacokinetics (PK)** • **PK/Pharmacodynamics (PD)** • **Pharmaceutical Profiling** • **In Vitro-In Vivo Extrapolation (IVIVE)** • Regulatory Requirements & Documentation • **High-Throughput Screen (HTS)** • Biotransformation • **Project management** • **Line Management and Cross-Functional Team Leadership** • Professional Collaboration & Networking

PROFESSIONAL EXPERIENCE

UPPSALA UNIVERSITY, FACULTY OF PHARMACY, Science for Life Laboratory, Drug Discovery and Development Platform, ADME of Therapeutics (UDOPP), Uppsala, Sweden • January 2014-Present
Head of Facility, Docent (Associate Professor)

Responsible for daily operation of the UDOPP facility and planning, design, performing, interpretation and reporting of in vitro ADMET and in vivo pharmacokinetics (PK) studies, and analysis at the facility. Hands-on experience from ADME/PK and pharmaceutical profiling laboratory, including extensive use of liquid chromatography and mass spectrometry technique (LC-MS/MS).

- Docent (Associate Professor) in preclinical drug development (2021-06-23).
- Member of the Portfolio Management Committee (PMC) at the Innovative Medicine Initiative (IMI), European Gram Negative Antibacterial Engine (ENABLE) project (2014-2021).
- Lead of the ENABLE In Vivo & Safety Platform (2015-2021).
- Academic co-lead of WP4 within the IMI, Conception project (2019-present).
- Organizer of the Annual Drug Optimization and Pharmaceutical Profiling Symposium at the BMC, Uppsala University (January 2014 - 2020).

UPPSALA UNIVERSITY, FACULTY OF PHARMACY, Uppsala Drug Optimization and Pharmaceutical Profiling Facility (UDOPP), Uppsala, Sweden

KAROLINSKA INSTITUTET, Department of Medical Biochemistry and Biophysics, Stockholm, Sweden • 2012-December 2013

ADME Scientist and UDOPP Local Platform Acting Manager (from February 2013)

Lead estimation of ADME properties, predictions of PK profiles and assessment of risks for DDIs of leads and drug candidates in the discovery phase. Reporting the results to the academic project teams and interacts with medicinal chemists/biology scientists in order to improve pre-clinical properties of the compounds.

- Hands-on experience from ADME and pharmaceutical profiling laboratory, including extensive use liquid chromatography and mass spectrometry technique (LC-MS/MS).

- Responsible for daily operation of the UDOPP local platform at the Department of Pharmacy, UU. Planning, design, performing, interpretation and reporting of in vitro ADME and pharmaceutical profiling studies at the platform.

ASTRAZENECA AB (CNSP iMED), Södertälje, Sweden • 2006-August 2012

Principal Scientist – Department of Drug Metabolism & Pharmacokinetics (DMPK)

Lead estimation of ADME properties of drug candidates in the discovery and early development phases. Develop, improve, and validate methods for drug transporters and drug metabolizing enzymes research. Hands-on experience from in vitro drug metabolism laboratory. Facilitate communication across the DMPK, Medicinal Chemistry, Clinical Pharmacology, and Clinical Development Departments, as well as among research and development (R&D) facilities and partner companies. Create and drive progress toward scientific objectives and deliverables. Lead and oversee in vitro and in vivo studies, including scaling to human pharmacokinetic (PK) parameters. Supervise simulations defining PK parameters and predicting drug-drug interactions using SimCYP Simulator. Interfaced with regulatory agencies around drug metabolism and quality requirements.

- Established and subsequently ran the in vitro drug-drug interactions (DDI) laboratory.
- Hands-on experience with method development, improvement and validation within the area of drug metabolizing enzymes and drug transporters (i.e. metabolic stability, CYP and UGT inhibition assays, CYP induction, enzyme identification, investigation of drug transporter role in distribution and elimination of drug candidates), as well as with reporting and storage/filing of the results.
- Co-authored the AstraZeneca drug transporter strategy and drug-drug interaction strategy.
- Founded the multifunctional AstraZeneca Neuroscience Drug-Drug Interaction Advisory Group (members from DMPK, Clinical Pharmacology and Clinical Pharmacology Physicians), which has supported more than 15 projects to date.
- As a leader of a 60-member cross-functional SimCYP Network, also founded the Industrial PBPK Working Group with 50+ members spanning 24 pharmaceutical companies. Headed development of an SWOT analysis and webinars on physiologically based PK (PBPK) simulations.
- Supervised multiple post-doctoral and master's-level thesis projects, leading to the creation of a UGT protein quantification methodology and development of 3 manuscripts.
- Successful introduction and development of a LC/MS/MS based protein quantification methodology for ADME and biotransformation laboratories.
- Planning and performing, also outsourcing, in vitro biotransformation and in vivo biotransformation studies (animal mass balance studies). Expertise on handling and storage of radiolabel drug candidates.
- Honored with the 2010 Södertälje Clinical Pharmacology & DMPK Leadership Team Award for excellent collaborative work within the Neuroscience DDI Advisory Group.

BIOVITRUM AB, Stockholm, Sweden • 2001-2006

Team Leader & Senior Scientist – Preclinical Development

Coordinated in vitro drug metabolism studies, including conducting in vitro ADME assays and research, ensuring quality, and driving team member knowledge and skills development. Served as a core member of the project teams, providing DMPK subject matter expertise to discovery and early development projects in GI inflammatory and bowel disorders and anti-diabetic therapeutic areas.

- Established and maintained a smooth and functioning, well-organized in vitro metabolism group.
- Spearheaded collaboration and communication among multiple internal groups and across departments, as well as with senior management.

- Chaired the PBPK Group of 3 scientists. Developed simulations for project team training and education, and represented the company at the Annual SimCYP Consortium Meeting for 2 consecutive years.
- Published 2 reviews and 4 original articles.
- Supervised 3 Master of Science thesis project to completion.
- Awarded recognition from the CEO for outstanding scientific contribution (2002).

PHARMACIA & UPJOHN AB, Stockholm, Sweden • 1999-2001

Senior Scientist – Department of Drug Metabolism & Pharmacokinetics (DMPK)

Collaborated with R&D professionals in the US, Sweden, and Italy to introduce, validate, and automate in vitro ADME studies using liquid handling robotic system (Biomek). Leveraged good communication skills and solid scientific knowledge to overcome cultural and language barriers.

- Successfully established automated assays and in vitro ADME study strategies.

KAROLINSKA INSTITUTET, Huddinge, Sweden • 1997-1998

Post-Doctoral Fellow – Centre for Nutrition and Toxicology (CNT)

Academic post-doctoral research. Conducted in vitro and ex vivo studies using human materials (human liver microsomes and liver slices) to correlate individual metabolic activity with a toxicological effect measured as DNA adducts for heterocyclic aromatic amines. Collaborated extensively with other laboratories.

- Published 6 original articles.
- Won 2 years' worth of financial support for an independent scientific project.

INSTITUTE OF PLANT GENETICS & PLANT CROP RESEARCH, Gatersleben, Germany • 1992-1996

Ph.D. Student – Department of Genetics and Cytology

Conducted studies supporting the PhD thesis "The Determination of DNA Adducts by the ³²P-Postlabeling Technique to Estimate Risks in the Microelectronic and Chemical Industry."

- Published 2 original articles.

INSTITUTE OF OCCUPATIONAL MEDICINE, Lodz, Poland • 1990-1991

Research Fellow – Department of Toxicology Evaluation

Conducted in vivo animal studies of the toxicological effect of industrial and environmental compounds.

FORMAL EDUCATION

Docent (Associate Professor) in Preclinical Drug Development (2021)

Uppsala University – Uppsala, Sweden

PhD in Biochemistry and Genetic Toxicology (1996)

University of Bremen – Bremen, Germany

Master of Science in Pharmaceutical Sciences

Medical University of Lodz, Faculty of Pharmacy – Lodz, Poland

LANGUAGE SKILLS

English, German, Polish, Russian, Swedish

SELECTED PROFESSIONAL DEVELOPMENT & TRAINING

(Comprehensive listing available on request)

Quattro LC (LC/MS/MS) Operator Training

Mass Spectrometry course (Waters Corp, TQ-S micro and 2D LC system)

Interpretation of MS-MS Mass Spectra

LC-MS for the Chromatographer

UNIFI Post Processing & Admin Training

Automated In Vitro-In Vivo Extrapolation (VIVE) of Human Drug Metabolism

Hands-on experience with Simcyp Simulator of human drug metabolism

Metabolites in Safety Testing (MIST) – are Your Drug Metabolites Safe?

Pharmacokinetics & Pharmacodynamics (PKPD) Modelling (3 days)

Modelling in Berkley Madonna and Phoenix WinNonLin 6.2 course

Pharmacokinetics & Pharmacodynamics PKPD course (3 days by Prof Johan Gabrielsson)

Applied Project Management (3 days course by Anders Eklund, Moment.)

Academic Teacher training Course (12 days, 7.5 hp)

PROFESSIONAL AFFILIATIONS

Drug Metabolism Discussion Group (DMDG), member.

Swedish Pharmaceutical Society (SPS), member of the Pharmacokinetics and Drug Metabolism section.

COMPUTER SKILLS

Microsoft Office package, GraphPad Prism

ADMET Predictor (Simulations Plus, inc.)

PK-Sim, SimCYP Simulator (SimCYP Ltd., Certara™)

DDI Simulator (Futjisu Corp)

Meteor & Derek (Lhasa Ltd.)

MassLynx, Unify

Xcalibur

MassFrontier

PERSONAL DETAILS

Born 13 April 1964

Married, one son - Mark 14 years old

Interests: travel and history

REFERENCES, Available upon request