# **Externally Funded Research Projects**

Susan Burkhill, lain Gardner

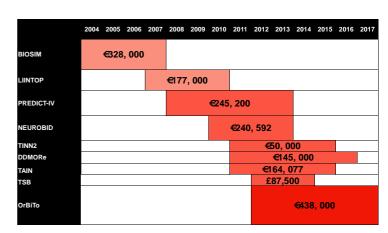
Simcyp Limited (a Certara Company), Blades Enterprise Centre, John Street, Sheffield, S2 4SU, UK





# **Summary**

- Simcyp involvement in European grants started in 2004 with BioSim (an FP6 funded project)
- Participation in funded research collaborations has ↑ since 2007
- FP6, FP7 & IMI International Collaborative Projects have given €1,349,869 since 2004
- Other Funded Research Projects: £496,431 since 2002



Overview of the funds received from grant funding bodies (FP 6 & 7, IMI & TSB)

# **Ongoing grant projects**



### 'Oral Biopharmaceutics Tool'

Aims to develop and validate novel, innovative and integrated experimental and theoretical models and methods that will significantly improve prediction accuracy of in vivo drug product performance. The project and its consortium have been designed to advance the capabilities within the European Pharma Industry for prediction of the complex human GI drug absorption mechanisms & to implement these new models and methods in industrial drug development settings.



# 'Drug Disease Model Resources'

Aims to develop common definition language for data, models and workflows, along with an ontology based standard for storage and transfer of models and associated metadata. A drug and disease model library will be developed as a public resource.

# 2011 - 2015 Timm FP7

## 'Treat Infections in Neonates 2'

Aims to evaluate azithromycin, included in the EMEA priority list of therapeutic areas that need specific drug evaluation, in preterm and term neonates



'Treatment of Adrenal Insufficiency in Neonates' Aims to develop a neonatal formulation of hydrocortisone.

Technology Strategy Board 2012 - 2014

'A User-Friendly Tool for Analysis of Complex In Vitro Experimental Data in Drug Discovery and Development' Aims to develop a user-friendly software tool for analysis of in vitro data describing the metabolism, transport and receptor binding of drugs.



# 'Neuroscience on Barriers in Development'

Aims to understand the BBB in the developing brain along with improving the understanding of neurological disorders of infancy & those in adults with developmental antecedents and develop novel drug delivery strategies to the brain for large molecules.





'Profiling the Toxicity of New Drugs: A Non Animal-Based Approach Integrating Toxicodynamics and Biokinetics'

Aims to develop strategies to improve the assessment of drug safety in the early stage of development and late discovery phase in a rapid and cost effective manner by an intelligent combination of non animal-based test systems, cell biology, mechanistic toxicology and in silico modelling



'Mechanisms of Drug Disposition during Pregnancy'

## W UNIVERSITY of WASHINGTON

## 2012 - 2017 CRADA

'Development of Physiologically-Based Pharmacokinetic (PBPK) Dog Models to Support Veterinary Drug Evaluations



### 2012 - 2017

'Improved In Vitro to In Vivo Extrapolation in Chemical Safety Risk Assessment of Human Systemic Toxicity



# PhD Studentships & Industrial Fellowships

### 2013 - 2016 MRC CASE Studentship

'Dose Optimisation in Paediatric Oncology using Physiologically-Based Pharmacokinetic Models'



Simcyp Contact for more information:

Jennifer Bonner

# 2012 - 2016 MRC CASE Studentship

'Assessment of Parameters for Quantitative Predictions of DDIs Arising from Induction of Metabolising Enzymes and Transporters'



Simcyp Contact for more information:

Lisa Almond

# 2011 - 2014 Royal Commission Funded Studentship

'The Impact of Inter-Individual Variability in Human Intestinal Transport Protein Abundance and Function on Drug Absorption'



Simcyp Contact for more information:

Matthew Harwood