



**CRED: Understanding Clinical Development Programme
10-11 October 2023**

Day one

Chairperson: Steve Pinder, Envestia Ltd

Time	Activity	Speaker
09:20	Registration and Coffee	
09:30	Introduction to TOPRA	
09:35	Welcome and Introduction Clinical Development in Context <ul style="list-style-type: none"> • Target product profile • Use 10-year development diagram, say where everything fits in • Why are clinical data needed? • Relevance of preclinical data • Definitions of Phases I, II, III and IV. • Clinical development strategy and the Clinical Development Plan • Sources of advice and timing • Need for a PIP 	Steve Pinder Envestia Ltd
09:50	Clinical Pharmacokinetics <ul style="list-style-type: none"> • To see how the drug is handled in man • To understand the basic parameters used to describe the PK of a drug • To understand the importance of PK in drug development <ul style="list-style-type: none"> ○ Describe the different processes involved in Pharmacokinetics: absorption, distribution, metabolism and excretion ○ Define the PK parameters which describe each process, e.g. C_{max}, t_{1/2}, AUC, Volume of distribution, Clearance, Bioavailability etc, and their relevance ○ Discuss multiple dosing and non-linear kinetics ○ Understand the importance of metabolism including, <ul style="list-style-type: none"> ▪ Drug metabolising enzymes, ▪ Importance of ensuring main metabolites in man are similar to those produced by preclinical toxicology species 	Marco Siccardi Labcorp

Time	Activity	Speaker
	<ul style="list-style-type: none"> ○ Discuss generation of PK data throughout the different phases of Drug development including <ul style="list-style-type: none"> ▪ Overview of studies performed in phase I, II and III ▪ Standard PK sampling employed in Phase I and II. ▪ Use of sparse sampling and population PK approaches in Phase III. ○ Discuss importance of validation of analytical methods – as a regulatory requirement. 	
10:30	Tea/ coffee break	
10:50	Clinical Pharmacodynamics <ul style="list-style-type: none"> • First in human trials • Guideline • Objectives of clinical pharmacodynamic studies • Mechanism/onset/duration of action • Examples of pharmacodynamic models • Different study designs • Identification of sub-group differences e.g. disease-related, gender, age, race, geography (racial sub-populations) • Biomarkers • Practicalities of clinical pharmacodynamic studies 	Marco Siccardi Lapcorp
11:30	Panel Discussion	
12:00	Lunch	
13:00	Optimal Study Design – Objectives and Issues Relating to Phase II studies <ul style="list-style-type: none"> • Objectives of Phase II studies • “Proof of concept” • Design of Phase II studies • Definition of target patient population • Choice of end point(s) • Dose response • Initial identification of possible safety issues • Importance of keeping the target product profile in mind throughout • Adaptive design and accelerated development • Conditional approval 	Carly Barraclough Amgen LTD
14:00	Paediatric Investigation Plans <ul style="list-style-type: none"> • Legal framework 	Steve Pinder Envestia Ltd



Time	Activity	Speaker
	<ul style="list-style-type: none">• Why children are different• Preferred approaches to clinical development in children• Devising PIP strategy• Content and format of a PIP• PIP review process• Compliance Check	
14:35	Case study and feedback session <i>Tea to be taken in case study groups</i>	
17:00	Close	



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Day two

Chairperson: Beatrix Friedeberg, Johnson & Johnson

Time	Activity	Speaker
08:55	Introductory comments	Chair
09:00	Design of Clinical Trials to Support Proof of Efficacy (Phase III) <ul style="list-style-type: none"> • Confirmation of efficacy in the target patient population • Considerations for trial design e.g. control groups, duration of treatment • Long term safety data (circumstances when needed) • Choice of comparator (placebo vs active comparator) • Statistical issues – stats plan, primary and secondary endpoints, exploratory endpoints • Enlargement of the safety data-base to support the safety sections of the SmPC • Inclusion of quality of life (QoL) and other pharmaco-economic end-points to support pricing/reimbursement • Master protocols 	Beatrix Friedberg Johnson & Johnson
10:00	Tea/ coffee break	
10:30	Safety <ul style="list-style-type: none"> • Pharmacovigilance - aims and objectives • Definitions • Clinical Trial Regulation – Reporting • Causality attribution • Risk management plans • PASS Studies • The SPC • Current EU Pharmacovigilance Legislation – mention Reference Safety Information (RSI) and new guidance 	Glyn Belcher PV Consultancy Ltd
11:30	Panel discussion	
12:00	Lunch	
13:00	Case study and feedback session <i>Tea to be taken in case study groups</i>	
15:15	The Perspective of a Regulatory Authority Reviewer <ul style="list-style-type: none"> • Specific examples of what regulatory agencies look for • Common problems with the clinical data in MAAs 	Tomáš Radiměřský <i>State Institute for Drug Control (SUKL)</i>



Time	Activity	Speaker
	<ul style="list-style-type: none">• Reasons for different views and decisions between regulatory authority reviewers• Obtaining regulatory agency input and appropriate timelines<ul style="list-style-type: none">○ CHMP scientific advice versus national agency advice○ Implementation of advice received	
16:00	Summary	Chair
16:30	Close	

Delegates will be encouraged to ask questions throughout the day so as to ensure the meeting is as interactive as possible.