

# SEURAT-1 Annual Meeting 2013

## AGENDA



## Day 1: March 6th, 2013

### WELCOME & OPENING

Chair: Ian Cotgreave (SEP co-chair)

|                | Time  | Topic  | Speaker             |
|----------------|-------|--|---------------------|
| CASTELO I + II | 09:00 | Welcome & Opening  | I. Cotgreave, SEP   |
|                | 09:05 | Opening speech European Commission   | B. Mulligan, DG RTD |
|                | 09:20 | Introduction to the 3rd SEURAT-1 Annual Meeting  | E. Da Silva, COACH  |
|                | 09:35 | The importance of biokinetics in the design of in vitro experiments and the utilisation of results for safety assessment | R. Thomas, SEP      |

### SESSION I: THE THREE PROOFS-OF-CONCEPT

Chair: Catherine Mahony (SEP)

|                | Time  | Topic                            | Speaker                       |
|----------------|-------|----------------------------------|-------------------------------|
| CASTELO I + II | 10:10 | Session introduction             | C. Mahony, SEP                |
|                | 10:15 | Describing Mode-of-Action        | B. Landesmann, MoA WG         |
|                | 10:50 | Coffee Break                     |                               |
|                | 11:20 | Systems for predicting toxicity  | M. Whelan, COACH              |
|                | 11:55 | Application in safety assessment | A. White and D. Knight, SA WG |
|                | 12:30 | Lunch                            |                               |

### SESSION II: PROJECTS REPORTS & CROSS CLUSTER INTERACTIONS

Chair: Michael Schwarz (COACH)

|                | Time   | Topic   | Speaker            |
|----------------|--|---|--------------------|
| CASTELO I + II | 13:30  | Session introduction                              | M. Schwarz, COACH  |
|                | 13:35  | Outcomes from the first SEURAT-1 strategic review | E. Berggren, COACH |
|                | <b>PROJECT REPORTS</b>                               |   |                    |
|                | 13:45  | SCR&Tox   | S. Bremer-Hoffmann |
|                | 14:05  | HeMiBio   | C. Verfaillie      |
|                | 14:25  | DETECTIVE   | J. Hescheler       |
|                | 14:45  | COSMOS  | M. Cronin          |
|                | 15:05  | NOTOX   | E. Heinzle         |
|                | 15:25  | ToxBank   | B. Hardy           |
|                | 15:45  | Coffee break                                      |                    |
|                | 16:00 – 19:15 The Seurat-1 Market Place: See Annex I |   |                    |

## Day 2: March 7th, 2013

### SESSION II (Continued from Day 1)

| Time         | Topic  |
|--------------|--|
| 9:00 – 10:30 | The Seurat-1 Market Place: Three Parallel Discussion Rooms (See Annex I) |
| 10:30        | Coffee Break   |

### SESSION III: SEURAT-1 MARKET PLACE FEEDBACK AND FOLLOW-UP

Chair: Bruno Cucinelli (COACH)

|                | Time  | Topic  | Speaker              |
|----------------|-------|--|----------------------|
| CASTELO I + II | 11:00 | Session introduction                                       | B. Cucinelli, COACH  |
|                | 11:05 | Feedback from the SEP External Members on the Market Place | SEP External Members |
|                | 11:30 | Plenary discussion on the Market Place                     | All participants     |
|                | 12:15 | Poster Awards  | SEP co-chairs        |
|                | 12:30 | Lunch Break  |                      |

### SESSION IV: FUTURE EXPECTATIONS AND CHALLENGES

Chair: Maurice Whelan (COACH)

|                | Time  | Topic   | Speaker              |
|----------------|-------|---|----------------------|
| CASTELO I + II | 14:00 | Session introduction  | M. Whelan, COACH     |
|                | 14:10 | Final words from the Project Coordinators on next year challenges | Project Coordinators |
|                | 15:25 | Questions from the audience to the coordinators                   | All Attendants       |
|                | 15:45 | Take home message   | SEP co-chairs        |
|                | 16:00 | End of the 3rd SEURAT-1 Annual Meeting, coffee                    |                      |

The SEP meeting is planned from 17:00 to 19:00 and to be continued on March 8<sup>th</sup> from 8:30 to 12:00 (CASTELO X)

# ANNEX I

## DAY 1: The Market Place detailed programme

|              | Time                          | Content  |
|--------------|-------------------------------|--|
| CASTELO IX   | 16:00 - 17:00 & 18:30 - 20:00 | <b>POSTER SESSION:</b> Poster presenters are invited to make a 5 minutes oral introduction to their poster (max. 3 slides).<br><br>The SEP will choose the three best posters to be awarded at Day 2.  |
|              | 17:00 - 17:45                 | <b>HeMiBio: Bioreactors and cell engineering, follow-up of the Gent joint meeting</b> ( <i>Expected participants from NOTOX, DETECTIVE, SCR&amp;Tox</i> )<br>a. What cells are being made at the moment (Engineering wise)<br>b. What hepatocyte (like) cells are being used. What is the reference that could be used in our experiments (freshly isolated hepatocytes, freshly thawed hepatocytes, HepaRG cells, upcyted hepatocytes)<br>c. What bioreactors are currently used and what are their readouts  |
| CASTELO IV+V | 17:45 - 18:30                 | <b>HeMiBio: Biomarkers (gene targets) for fibrosis, steatosis and cholestasis to be used for cell engineering</b> ( <i>Expected participants from ToxBank, DETECTIVE, SCR&amp;Tox, MAWG</i> )<br>HeMiBio needs "biomarkers" to allow the incorporation of molecular sensors in different cell components in the bioreactor. A feedback from the different consortia and Seurat-1 will be welcome. HeMiBio plans to propose a list of biomarkers by the end of February as a basis for discussion. Are endpoint markers of these processes more interesting than early onset markers? They will come with a list suggesting a number of processes and potential markers that need to be discussed. If the list is not satisfactory, they would then very quickly need an alternative list such that Cell Engineering in hiPSC can be continued. |
|              | 16:15 - 17:00                 | <b>SEURAT-1 2<sup>nd</sup> Proof of Concept</b><br>The JRC will present their plan to perform a feasibility study to demonstrate how to predict selected types of target organ toxicity. Other partners will be invited to discuss the case studies presented and their possible contributions to complete those. This will also be the occasion to suggest additional case studies and further elaborate cross cluster interactions to set up MoA integrated testing/modelling strategies.  |

|                 | Time          | Content  |
|-----------------|---------------|--|
| CASTELO X       | 17:00 - 17:45 | <b>SEURAT-1 3<sup>rd</sup> Proof of Concept</b><br>What is necessary to achieve regulatory acceptance for MoA prediction methods/strategies developed within the cluster? The safety assessment working group will invite partners to contribute to the third proof of concept and to further discuss suggested pragmatic solutions in the use of information derived from predictive tools to support safety assessment processes and decisions within the timelines of SEURAT-1.   |
|                 | 17:45 - 18:30 | <b>Biokinetics modelling in support to SEURAT-1</b><br>This session will first provide an illustrative example of what can be achieved in terms of <i>in vitro-in vivo</i> extrapolations, even with limited information on the substance, with a case study on acetaminophen. <i>In vitro</i> and <i>in vivo</i> kinetics modelling will be shown. The expectations of SEURAT-1 Cluster partners and how to support them to build their own models or use the ones developed during COSMOS project will be discussed. The question of training will be addressed. |
| CASTELO VI+ VII | 18:30 - 19:15 | <b>NOTOX, COSMOS and HeMiBio:</b> Modelling interaction in SEURAT-1  |
|                 | 16:15 - 17:30 | <b>SCR&amp;Tox and DETECTIVE: Definition and harmonisation of treatment protocols:</b><br>a. Repeated dose toxicity models (SCR&Tox)<br>b. Cardiomyocyte repeated dose exposure protocols (DETECTIVE)<br>c. Definition and harmonization of treatment protocols (SCR&Tox and DETECTIVE)<br>d. Discussion   |
| CASTELO VI+ VII | 17:45 - 18:15 | <b>NOTOX project progress discussion:</b><br>Organotypic HepaRG culture for toxicity assessment  |
|                 | 18:30 - 19:00 | <b>HeMiBio project progress discussion:</b><br>Bioreactors & Genetic Engineering of cells  |

*Towards the end of the SEURAT-1 Market Place, drinks will be served in the Foyer. Attendants will be invited to visit the posters in room CASTELO IX. It will be followed by the conference dinner at 20:00*

## DAY 2: The Market Place detailed programme

|                 | Time          | Content   |
|-----------------|---------------|---|
| CASTELO IV+V    | 09:00 - 09:45 | <b>Hands-on training on the ToxBank data warehouse and associated wikis</b> (compounds and biomaterials)<br>Attendees will receive guidance on the uploading, sharing and retrieving datasets, protocols and supporting information   |
|                 | 09:45 - 10:30 | <b>SEURAT-1 Training Task Force</b> (closed discussion)   |
| CASTELO X       | 09:00 - 09:45 | <b>HeMiBio: Range of toxins (drugs/cosmetics) and their metabolites expected <i>in vitro</i></b> ( <i>Expected participants from ToxBank, DETECTIVE, COSMOS, NOTOX</i> )<br>Through their session, HeMiBio will request input from ToxBank and other SEURAT-1 partners related to levels of cosmetics and other toxic components that cause fibrosis, cholestasis and steatosis, the metabolites of these molecules that can be measured in the cell and their surroundings such can be built electrodes that can measure these components in the dose range both in and out of the cell. SOPs for measuring metabolites and "golden compounds" themselves in and out of the cell at 96/384 well scale. |
|                 | 09:45 - 10:30 | <b>HeMiBio: Range of extracellular levels of cell metabolism molecules to be expected in bioreactor</b> ( <i>Expected participants from DETECTIVE, COSMOS, NOTOX</i> )<br>There is need to optimize electrodes to be integrated in the bioreactor. HeMiBio therefore needs to precise information regarding the extracellular levels which can be expected from a number of components, including ALT, LDH, glutamate, lactate, glucose, ... per amount of cells in an <i>in vitro</i> setup (take 10.000 hepatocytes as an example).   |
| CASTELO VI+ VII | 09:00 - 09:30 | <b>COSMOS project progress discussion:</b> Demonstration of COSMOS Database and KNIME Server and Workflows. Input/feedback from SEURAT-1 partners regarding their needs and expectations."  |
|                 | 09:45 - 10:45 | <b>ToxBank project progress discussion</b> (DAWG - Discussion of Integrated Analysis Framework for Cluster)<br>Taking into account requirements from MoA-based testing strategies, safety assessment proof-of-concept, integration of heterogeneous data including consideration of biokinetics, time and concentration-dependence, background knowledge, and approaches to meta-analysis including linking evidence with pathways and key events.  |