

# Program

## **Fish and Amphibian Embryos as Alternative Models in Toxicology and Teratology**

**Aulnay-sous-Bois/Paris, (28)29-30 November 2018**

\* invited speakers are marked with an asterisk

### **Wednesday, November 28**

**2 – 6 p.m. – Satellite workshops on KNIME and AOPs**

Details of the agenda will be provided for workshop participants

### **Thursday, November 29**

08:00 | Shuttle bus leaving from conference hotel Mercure Le Bourget (Le Blanc Mesnil). No shuttle is provided for participants staying in Hotel du Parc or Hotel St. Germain (walking distance to L'OREAL conference facility)

08:00 – 9:15 | Registration

09:15 | Welcome and introduction – Laurent Gilbert, Marc Léonard, Stefan Scholz

09:30 | Topic 1: Predicting human toxicology

Chair: Stephanie Padilla (US-EPA)

09:30 | Erica Davis (Duke University)\*

Modeling pediatric genetic disease in the developing zebrafish

10:15 | Steven C. Cassar (Abbvie)\*

Evaluating the zebrafish developmental assay for predicting embryotoxic chemical plasma levels in mammals

11:00 | Coffee break and Posters

11:30 | Topic 2: OMICs in zebrafish embryos

Chair: Juliette Legler (IRAS)

11:30 | Wibke Busch (UFZ)\*

ZFE-Toxicogenomics - from snapshot observations towards dynamic response modelling

12:15 | Pim Leonards (Vrije Universiteit Amsterdam)\*

Metabolome analysis in zebrafish embryos

13:00 | Lunch break (buffet) in poster and exhibition area

14:30 | Topic 3: Data analysis

Chair: Stefan Scholz (UFZ)

14: 30 | David Reif (North Carolina State University)\*

Leveraging high-throughput screening data to find evidence for susceptibility differences in genetically diverse zebrafish

15:15 | Topic 4: Detection of neuroactive compounds

Chair: Jessica Legradi (RIVM Amsterdam)

15: 15 | Matthew Winter (Exeter University)\*

Brain pharmacological profiling in zebrafish embryos

16:00 | Coffee break and posters

16:40 | Topic 4 continued: Detection of neuroactive compounds

16:40 | Michael Gundlach (RWTH Aachen)

Adverse outcome pathways - A tool for the ecotoxicological analysis of antidepressants in hospital wastewater

17:00 | Topic 5: Toxicokinetics

Chair: Joop de Knecht (RIVM)

17:00 | Segolene Simeon (INERIS)

PBPK modeling of the zebrafish embryo for reprotoxicity assessment

17:20 | Annelii Ny (KU Leuven)

Compound distribution and half-life determination in zebrafish after different exposure routes

Free communications

Chair: Marc Léonard (L'Oréal)

17:40 | David du Pasquier (Watchfrog)

Fish and Frog embryos - the SOLUTIONS to assess the endocrine activity of pollutants?

18:00 | Gunjan Pandey (Univ. Heidelberg)

An Automated High Content Screening Platform for Identification of Cystic Kidney Disease-Modifying Substances in Zebrafish

18:20 | Kristen Ryan (NIEHS-HIH)

The National Toxicology Program's Approach for the Systematic Evaluation of the Application of Zebrafish in Toxicology (SEAZIT): A Progress Report

18:40 | End of day 1 presentations

19:00 | Departure for dinner

Busses will provide transportation back to the hotels.

### **Friday, December 30**

08:30 | Bus shuttle from Mercure Le Bourget

### **09:15 | Introduction to breakout sessions (Stefan Scholz, Marc Léonard)**

09:30 | Parallel breakout sessions

(Coffee Break for all 11:00 - 11:30)

Short talks in breakout sessions to be dependent on participant's submissions. Session chairs may ask poster presenters to give an additional short talk in the breakout session. Hence, there might be additional presentations. Talks could be limited to approx. 10 minutes but this is flexible, can be arranged according to the ideas of the session organisers and the number of talks and interest.

### **Topic 1 (invited breakout session). Combining toxicokinetics, biotransformation and AOP development in zebrafish embryos for development of predictive assays**

Chairs: Joop de Knecht (RIVM), Leo van der Ven (RIVM)

Willem Schoonen (RIVM)	Zebrafish embryos for prediction and interspecies extrapolation of toxicity of alkoxy/alkyl alcohols and valproic acid by application of the adverse outcome pathway concept
Joop de Knecht (RIVM)	Case study on toxicokinetic modelling of alkoxyethanols and their metabolites in zebrafish embryos
Dimitrios Damalas (Univ. Athens)	Zebrafish embryos exposed to Triclosan - Combining acute toxicity, toxicokinetics and metabolomics approaches for a comprehensive toxicity assessment strategy

Cindy L.A. Woodland (Gov. Canada) Evaluation of the Zebrafish Model as an Alternative to Rodent Assays used in Risk Assessments of New Substances Notified for Import or Manufacture in Canada

Natalia Garcia Reyero (US Army ERDC) New Approach Methodologies using the Zebrafish

## **Topic 2. Behavioural assays / neurotoxicity – state of the art**

Chairs: Jessica Legradi, Matthew Winter

Afolarin Ogungbemi (UFZ) Behavioral response of zebrafish to chemicals: Analysis of comparability and predictability of mode of action

Ann-Cathrin Haigis (RWTH Aachen) Combination of six different zebrafish embryo behaviour assays for neurotoxicity screening

Marta Barenys (Univ. Barcelona) Modelling congenital palsy of cranial nerves in zebrafish embryos to study and prevent Moebius Syndrome

Richard S. Paules (NIEHS/NTP) The NTP and Tox21 High-Throughput Transcriptomics and the S1500+ Initiative

Sylvia Dyballa (ZeClinics) Cross-validation study of zebrafish larvae and hiPSC cardiomyocytes to predict drug induced cardiovascular activity in humans.

## **Topic 3. Prediction of developmental toxicity, integrated testing strategies**

Chairs: Noémie Crozé (L'Oréal), Aldert Piersma (RIVM)

Andrew Tindall (Watchfrog) Modelling mixture effects on the estrogen axis using an OECD related biomarker

Iñaki Iturria (Biobide) Thyroid disruption screening using zebrafish as a vertebrate model

Steven J. van Cruchten (Univ. Antwerp) Can skeletal staining increase the sensitivity of the Zebrafish Embryo Developmental Toxicity Assay (ZEDTA)?

Arianna Giusti (KU Leuven) Using zebrafish eleuthero embryos and rat microsomes for high- throughput toxicity investigation

Elisabet Teixido (UFZ) Grouping of chemicals by automated effect pattern analysis in zebrafish embryos

13:00 | Lunch Break

### **14:00 | Continuation of breakout session**

Finish discussions, prepare report for final panel discussion

**15:00 | Summary from breakout sessions, discussion, actions to take, final remarks**

Panel discussion: Fish and Amphibian Embryos – ready to use now?

16:00 | End of Symposium

16:00-16:30 | Brief meeting of organization committee, feedback on content and organisation

Please note that no shuttle service will be provided at the end of the symposium, since most of the participants will return home. The conference facility is located close to the RER B train station “Aulnay-sous-Bois” with trains directly serving the airport Charles des Gaulle or the International train station Gare de L’Est (via Gare du Nord). If you need help with transportation, taxi booking and planning please do not hesitate to contact us.