SYMPOSIUM 2018

5th and 6th November 2018

How new experimental tools in life sciences challenge the 3Rs vision?

ecopa

Organized by FRANCOPA

PARIS DIDEROT UNIVERSITY, FRANCE

Registration on Francopa website : www.francopa.fr

Deadline : October 25th, 2018

Further information may be obtained from: francopa@ineris.fr

GOALS: Looking at experimental approaches in life sciences as if they were just developments of traditional tools would be misleading. Development of tools and techniques in chemistry and physics techniques have deeply changed the capacities and uses of experimental approaches.

New tools widen the traditional terms of reference of the "debate on 3Rs ": OMICs, organoids, bio-artificial organs, use of *ex-vivo* material, telemetry and not invasive measures, imaging in vivo and on cellular material…

Coupled with a better understanding about molecular, cellular and physiological mechanisms, these approaches enrich the studies *in vivo*, *in vitro*, *in silico*. They also make it possible to use both human and animal observational data, with clinical or epidemiological approaches, in pathological or healthy situations.

Some tools are so innovative that they do not Replace nor Reduce nor Refine any existing approaches.

The various fields which require the investigation of the living, such as basic research on physiology, pathologies, (eco) toxicology, drug development, production and quality control of animal and human health products, food control and even education can all benefit from these improvements. What is more, to these scientific breakthroughs allow more and more connections between those fields.

The European platform ECOPA is dedicated to the promotion of the 3R principle (refinement, reduction and replacement of animal experiments) and acts by:

Dissemination of results obtained in this field

Promotion of exchanges between the disciplines and especially between the four interested parties (associations, research, authorities, economic actors)

It has teamed up with its national french component FRANCOPA to organize this scientific symposium, which should illustrate the tremendous potential offered by the new tools for the investigation in life sciences to resolve ethical imperatives and concerns about understanding life.

This symposium will allow the stakeholders from the four pillars of ECOPA to exchange on those matters and to find new ways to structure the ethical debate on experiments, at a time where the new tools soften the distinction between experiment and observation, as well as they break some borders between disciplines.

ATTENDEES: Users of results in upstream and applied research, developers of methods, interested parties in product safety, in human and veterinary medicine, stakeholders or NGOs on ethical research…

Day 1, 5th November	
08:00	Registration
09:15	**Opening of the ECOPA 2018 symposium** **F. MARANO, President of FRANCOPA**
09:30	Opening Keynote : Modeling Human pathogenesis using novel in vitro and in silico methods R. BAROUKI (INSERM – UMR-S 747)
10:00	**Session 1 System biology and physiopathology** **Chair : K. WAGNER** (Deutscher Tierschutzbund e.V. – German Animal Welfare Federation)
10:00	**Keynote 1 : From Organ-on-a-Chip Tools Towards Patients on Chips – Enforcing a Paradigm Shift in Drug Development** **U. MARX (TissUse, GmbH)**
10:30	Oral presentation 1.1 : Prion diseases: toward further reduction of animal experimentation M. MOUDJOU (INRA)
10:50	Oral presentation 1.2 : Drosophila: an alternative model for the modeling of human pathologies and the search for new therapies H. TRICOIRE (Paris-Diderot University - UMR 8251 Unité BFA)
11:10	Oral presentation 1.3 : Genotoxic and carcinogenic potential of 160 mycotoxins in human cells M. AUDEBERT (INRA, UMR1331 Toxalim)
11:30	Oral presentation 1.4 : Zebrafish larva: a reliable alternative of mammalian model to evaluate the impact of environmental contaminants on the mechanisms of liver disease progression M. IMRAN (INSERM - IRSET -UMR S 1085)
12:00	**Lunch & Poster presentation**
13:00	**Session 2 Organoids & organ on Chip** **Chair: L. BASTOS (Eurogroup for Animals)**
13:00	**Keynote 2: Organoids, organs-on-chip, 3D bioprinting in a 3R context - X. GIDROL (CEA)**
13:30	Oral presentation 2.1: Innovative 3D culture model of human hepatocytes with large potential applications S. LANGOUET-PRIGENT (INSERM)
13:50	Oral presentation 2.2: HepatoPearls: New generation of liver-mimicking spheroids N. DIANAT (CYPRIO)
14:10	Oral presentation 2.3: Development of a novel in vitro aerosol exposure system: the independent holistic air-liquid aerosol exposure system (inhales) S. STEINER (Philip Morris International R&D)
14:30	Oral presentation 2.4: Neurospheres for Species-Specific, Medium-Throughput Analyses of Developmental Neurotoxicity (DNT) Evaluation E. FRITSCHE (IUF - Leibniz Research Institute for Environmental Medicine)
14:50	**Coffee break & Poster session**
15:15	**Session 3 Omics, Biomaps, Exposome** **Chair: JP. BEAUFAYS** (Namur University – Faculty of Sciences) *to be confirmed*
15:15	**Keynote 3: Input of proteomic analyses for understanding cellular responses to nanoparticles: toward mechanistic data and evidence for cross-toxic effects - T. RABILLOUD (CEA)**
15:45	Oral presentation 3.1: High throughput techniques for a predictive toxicology R. GRALL (CEA)
16:05	Oral presentation 3.2: Role of Persistant Organics Pollutants and adipocytes in the acquisition of a metastatic potential and of chemoresistance in breast cancer C. TOMKIEWICZ-RAULET or M. KOUAL (INSERM)
16:25	Oral presentation 3.3: Modern science for 3Rs alternative approaches and better quality control of human vaccines S. UHLRICH (SANOFI PASTEUR)
16:45	Oral presentation 3.4: Development of SENS-IS, an in vitro assay to measure skin sensitization potency of chemicals H. GROUX (IMMUNOSEARCH)
17:05	**Posters presentation**
17:45	**ECOPA General Assembly for ECOPA members only**

Day 2, 6th November	
9:00	**Session 4 Education and training in medicine** **Chair C. VOGT (Claude Bernard University - Lyon 1)**
9:00	**Keynote 4:** **A. TESNIERE (ILUMENS)**
9:30	Oral presentation 4.1: C. VOGT (Claude Bernard University - Lyon 1)
9:50	Oral presentation 4.2: A Framework Program for the Teaching of Alternative Methods (Replacement, Reduction, Refinement) to Animal Experimentation C. ROVIDA (CAAT)
10:10	Oral presentation 4.3: The 3Rs implementation in FELASA accredited courses M. KOLF-CLAUW (Veterinary School of Toulouse)
10:30	Coffee Break & Poster presentation
11:00	**Session 5 Computational Toxicology & Drug efficiency** **Chair: F. BOIS (INERIS)**
11:00	**Keynote 5:** **Marrying in vitro and computational approaches to improve drug safety and Efficacy - P. JENNINGS (Amsterdam University)**
11:30	Oral presentation 5.1: PBPK modeling of zebrafish embryo for DART assessment of valproic acid and some of its analogs S. SIMEON (INERIS)
11:50	Oral Presentation 5.2: OECD activity on alternative methods - Integrated approaches to testing and assessment and the QSAR Toolbox M. HORIE (OECD)
12:10	Oral presentation 5.3: MERLIN-Expo: a library of multimedia chemical fate models and PBPK models for assessing environmental and human exposure to chemicals under uncertain conditions P. CIFFROY (EDF)
12:30	Oral presentation 5.4: MechoAs (Mechanism of Action) SAR Model and Skin Sensitization Screening: 3-methoxyphenol, 4-methoxyphenol and 1,4-dimethoxybenzene case study M. DELANNOY (KREATIS)
13:00	**Lunch & Poster presentation**
14:00	**Session 6 Telemetry & Imaging** **Chair: R MAXIMILIEN (CEA)**
14 :00	**Keynote 6:** **The future of high content screening for animal-free chemical safety testing - G. SCHOENFELDER (BfR)**
14:30	Oral presentation 6.1: France BioImaging, a coordinated Infrastructure for quantitative biological imaging at multiple scales J. SALAMERO (INBS France BioImaging)
14:50	Oral presentation 6.2: Novel approach for label-free live cell imaging by Raman microscopy and application to nanotoxicology S. DEVINEAU (Paris-Diderot University)
15:10	Oral presentation 6.3: Spatial-temporal MultiScale-multilevel modeling of APAP damage and ITS consequence on ammonia detoxification : Steps towards a virtual Liver D. DRASDO (INRIA)
15 :30	**Conclusion: Innovation for new tools and new tools for advances in life** **The need to improve human relevance in biomedical research** **F. PISTOLLATO, ECVAM** **H. CHRAYE, DG Research and Innovation**
16:10	**Coffee Break**
16 :30	**Round Table** **Animation : - C. ROVIDA (CAAT)** **- B. JEGOU (IRSET-INSERM U.1085)** **Composition : L. MOULIN (MTES) - F. PISTOLLATO (ECVAM) - H. CHRAYE (DG Research and Innovation)**
17:30	**Symposium Closure** **P. HUBERT (INERIS) - President of ecopa**

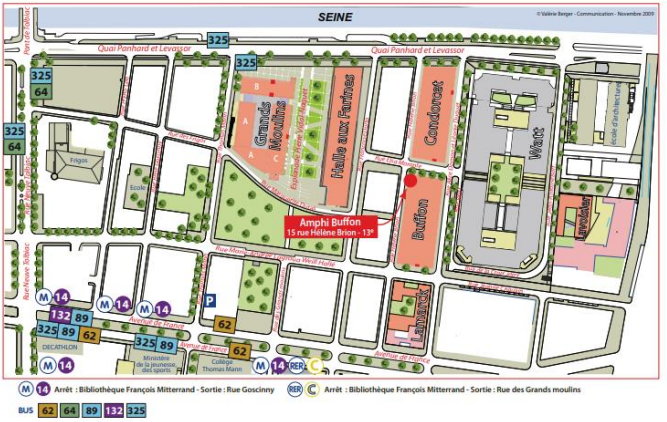
How to reach the hall Buffon on the site Paris Rive gauche?

Bus line n°62, 64, 89, 325, stop at Bibliothèque François Mitterand.

Bus line PC2, stop at Porte de la gare or Boulevard Massena

Subway : Line 14, station Bibliothèque François Mitterand (taken out : Goscinny street)

Line C of the RER, stop at Bibliothèque François Mitterand (taken out: Grands Moulins street)



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