



Programme du 7^{ème} meeting annuel du réseau EFOR

7 et 8 Mars 2016

Journée du 7 Mars : Technological and scientific sessions

Stem cells and model species

Somatic cell reprogramming in livestock - *Bertand PAIN (Stem cell and Brain Research Institute, Paris)*

Epithelial plasticity, a path to fitness, regeneration and slow aging – *Brigitte GALLIOT (Univ. Geneva, Switzerland)*

Ultrastructural, functional and molecular characterization of a spermatogonial stem cell in zebrafish – *Jean-Jacques LAREYRE (INRA, France)*

Potency arising from conflict : embryonic stem cell identity and lineage specific transcription – *Joshua BRICKMAN (DanStem Centre, Denmark)*

Preclinical models of stroke

Preclinical stroke studies : time for a compromise – *Denis VIVIEN (Cyceron)*

Preclinical multicenter trials as novel tools in translational research – *Arthur LIESZ (LMU, Germany)*

Models of stroke in marmoset – *Omar TOUZANI (Cyceron)*

Prclinical evaluation of thrombolic therapies – *Cyrille ORSET (Cyceron)*

Imaging, data analysis and databases : novel techniques in image acquisition and treatment

Multicolor and multicontrast nonlinear microscopy of developing tissues – *Emmanuel BEAUREPAIRE (Ecole Polytechnique Paris-Saclay)*

Numerical evaluation of whole *Drosophila* adult brain templates, a group-wise atlas solution – *Ignacio ARGANDA-CARRERAS (Univ. Del Pais Vasco, Spain)*

Mapping single neuron morphology *in vivo* with confined primed conversion – *Periklis PANTAZIS (ETH Zurich, Switzerland)*

Automated image analysis of *in vivo* processes in model organisms : design of analysis pipelines, software and applications – *Ralf MIKUT (KIT, Germany)*

Genome editing and ethics

Use of animals in research : news and perspectives – *Ivan BALANSARD (BEA, Paris)*



New ways to modify the genome : which ethical challenges ? – *François LACHAPELLE (BEA, Paris)*

Towards transgenic non-human primates – *Erwan BEZARD (Institut des Maladies Neurodégénératives, Bordeaux)*



Journée du 8 Mars : Model species workshops

[Zebrafish and other fish models workshop](#) – organized by Emilie DAMBROISE, Marion DELOUS, Noémie DE CROZÉ & Marc LÉONARD

Zebrafish, a model system for studying locomotor system related diseases

Spastin at the crossroads between development degeneration of motor circuits – Coralie FASSIER (IBPS, Paris)

From zebrafish collagen analysis to the use of a zebrafish Osteogenesis imperfecta models for drug screening – Antonella FORLINO (Univ. of Pavia, Italy)

Linking mobile cilia dysfunction to the etiopathogenesis of adolescent idiopathic scoliosis – Curtis BOSWELL (Hospital for Sick Children, Toronto)

Zebrafish as a model to study cilia function and dynamis – Julien VERMOT (IGBMC)

RESAMA network : mid-term assessment – Frédéric SOHM (AMAGEN platform, Gif-sur-Yvette)

(Eco)toxicology studies with fish models

Transgenic zebrafish models and their use in EDC's research – François BRION (INERIS)

Chemical uptake in the zebrafish embryo model : potentially important biological parameters – Till LUCKENBACH (Helmutz Centre for Environmental Research, Germany)

1, 2, 3... different generations, different effects : multigenerational toxicity assessment of environmental mixtures – Xavier COUSIN (IFREMER)

High content screening strategy based on the 3D morphology of medaka fry brain – Barbara RIZZI (TEFOR Core Facility, Gif-sur-Yvette)



[Drosophila workshop : a model organism for aging and associated pathologies](#) – Organized by Michaël RERA

Multiple issues in modeling degenerative diseases in *Drosophila* – Hervé TRICOIRE (Univ. Paris-Diderot)

Age-related locomotor impairment in clock-challenged flies : an unexpected connection – André KLARFELD (ESPCI, Paris)

***Drosophila* as a model to study cardiac aging and diseases** – Véronique MONNIER (Univ. Paris-Diderot)

Genome stability during aging in *Drosophila* intestinal stem cells – Allison BARDIN (Institut Curie)

Remote control of intestinal stem cell activity by haemocytes in *Drosophila* – Bruno LEMAITRE (EPFL, Switzerland)

***Drosophila* brings new lights on aging** – Michaël RERA (Univ. Paris-Diderot)



[Nematoda workshop](#) – organized by Maité CARRÉ-PIERRAT

Aging

Mitochondria and aging: what can we learn from *Caenorhabditis elegans* – Laurent MOUCHIROUD (EPFL, Switzerland)

Molecular links between longevity and reproduction in *Caenorhabditis elegans* – Hugo AGUILANIU (LBMC, France)

Models of human pathologies

***Caenorhabditis elegans* to investigate a type of blindness and resistance to chemotherapeutic drugs** – Julian CERON MADRIGAL (Catalan Institute of Oncology, Spain)

***Caenorhabditis elegans* for the study of biological resilience mechanisms to proteotoxicity in neurodegenerative disease** – Christian NERI (IBPS, France)

Ressource center presentation

AgroBRC, the French national infrastructure « Agricultural Resources for Research » - Christian MOUGIN (ECOSYS, France)

Epigenetics

Mi2 complexes as chromatin organisers of developmental programs – Chantal WICKY (Univ. Of Fribourg, Switzerland)

How can cells change their identity? *Caenorhabditis elegans* as a model to understand the nuts and bolts of transdifferentiation – Sophie JARRIAULT (IGBMC, France)

Developmental and cell biology

Evolution of cellular traits in nematodes – Marie DELATTRE (LBMC, France)

The nematode *Caenorhabditis elegans* for quantitative proteomics and FLIM-FRET approaches – Aymeric BAILLY (CRBM, France)



[Non-human primates workshop](#) – organized by Romain LACOSTE

Filovirus and Lyssavirus

Ebola, les grands singes et les hommes – Sébastien CALVIGNAC SPENCER (Robert Koch Institute, Germany)

Apport du modèle PNH pour l'étude de la physiopathologie et des réponses immunes au cours de la fièvre de Lassa – Sylvain BAIZE (CIRI, France)

Impacts des épidémies à virus Ebola sur la dynamique et la génétique des populations de gorilles de plaine de l'ouest – Nelly MENARD & Pascaline LE GOUAR (ECOBIO CNRS, France)

Impacts des politiques éco-sanitaires sur le futur des relations hommes-primates en Afrique de l'Ouest : cas d'Ebola – Vincent LEBLAN (PALOD IRD, France)

HIV, SIV

Réservoirs et émergence de différentes souches de VIH – Marine PEETERS (IRD, France)

Intérêt du modèle PNH infecté par le VIH – Roger LEGRAND (IMETI CEA, France)

HIV, SIV

Les primates non-humains : réservoirs et émergence des HTLV et Foamy viruses – Antoine GESSAIN (Institut Pasteur, France)

Utilisation d'un modèle PNH naturellement infecté par le rétrovirus oncogène STLV-1 – Renaud MAHIEUX (CIRI, France)



[Avian models workshop](#) – organized by Delphine DUPREZ & Florian GUILLOU

Development

The avian embryo as a model to study pediatric cancers – Valérie CASTELLANI (CGphiMC CNRS UCBL1, France)

Centrosomes and asymmetric cell division of neural progenitors – Xavier MORIN (IBENS Paris)

miRNA and Myogenesis in chick embryos – Andrea MUSTENBERG (Univ. Of East Anglia Norwich, UK)

Chick limb patterning: from signaling gradients to molecular oscillations – Isabel PALMEIRIM (Univ. Of Algarve, Portugal)

Chick and Quail genomics

Avian genome model use for hypothesis testing – Wesley C. WARREN (Univ. School of Medicine St Louis, USA)

Quails as genetic model organisms to study the dynamics of morphogenesis in amniotes – Jérôme GROS (Institut Pasteur, France)

Utilizing primordial germ cell technology to generate gene knockouts in chickens – Benjamin SCHUSSER (Univ. Of Munich, Germany)

Genome wide strategy in chick – Mickaël ORGEUR (IBPS, France)

QTL for behavioural traits in lines of Japanese quails – Christine LETTERRIER (PRC INRA, France)



[Marine metazoa models workshop](#) – organized by Julia MORALES, Emmanuelle RENARD, Sébastien DARRAS and Hector ESCRIVA

Secondary contacts of an alien tunicate with an infertile native congener : a SNPs-based investigation in *Ciona* spp. – Sarah BOUCHEMOUSSE (Station Biologique de Roscoff, France)

Amphioxus illuminates the origin of the vertebrates' head – Daniel ALDEA (OBS Banyuls, France)

The amphioxus : gene regulation and brain evolution at the origin of Chordates - Jordi GARCIA FERNANDEZ (Univ of Barcelona, Spain)

Development of sponge « models » in evo-devo state of the art. Available tools, interests and limits of *Oscarella lobularis* (*Porifera Homoscleromorpha*) – Emmanuelle RENARD (ISEM, France)

Molecular networks regulated during a nutrition cycle in the carnivorous sponge *Lycopodina hypogea* – Nelly GODEFROY (ISEM, France)

Poriferan databases provide a new perspective of the evolution of the wnt pathways – Quentin SCHENKELAARS (Univ of Geneva, Switzerland)

The cradle of wnt genes : on the evolution of wnt repertoires in metazoans – Jenifer CROCE (OBS Villefranche, France)

A trade-off between constraints on embryo geometry and on regulatory genome evolution – Patrick LEMAIRE (CRBM, France)

Nuclear envelope biogenesis and female and male pronuclei fusion mechanisms in echinoderms – Banafshé LARJANI (Univ of the Basque Country & IKERBASQUE, Spain)



[Lepidoptera workshop](#) – organized by Emmanuelle d'ALENÇON, Frédérique HILLIOU, Emmanuelle JACQUIN-JOLY, Laure KAYSER, Réjane STREIFF and Elisabeth TABONE

Interactions of Lepidoptera with plants

Influence of soil silicon in plant-Lepidoptera interaction – Paul-André CALATAYUD (EGGE, France)

Butterfly-butterfly-plant interactions: interplay between mutualistic mimicry and competition for resources – Marianne ELIAS (MNHN, France)

Genetic patterns of host-plant specilization in *Spodoptera frugiperda* – Nicolas NEGRE (DGIMI, France)

Coping with your food source defense arsenal : selected challenges & solutions for specialist and generalist herbivores – Heiko VOGEL (MPICE, Germany)

Functional characterization of olfactory receptors in the crop pest moth, *Spodoptera littoralis* – Nicolas MONTAGNÉ (iEES, France)

Bio-control of *Cydalima perspectalis* (lepidopteran pest) – study of the chemical compounds linked to the box tree ecosystem and impacting the relationship between pest host and parasitoid – Elisabeth TABONE (UEFM, France)

Interactions of Lepidoptera with insects

An overview on host regulation by parasitoids with a focus on *Cotesia flavipes* – Fernando L. CÔNSOLI (Univ of São Paulo, Brasil)

Coding moth *Cydia pomonella* (Lepidoptera, Tortricidae) as a model organism for foodweb interactions in a perennial crop system – Annette HERTZ (Institute for Biological Control, Germany)

Recurrent domestication of viral genomes leads to different virulence strategies in *ichneumonid* wasp – Anne-Nathalie VOLKOFF (DGIMI, France)

Comparative genomics of parasitoid wasps and what it tells on the evolution of their endogenous bracovirus – Jérémy GAUTHIER (IRBI, France)

Interactions of Lepidoptera with microorganisms

Insect interactions with baculovirus. A three-way relationship – Salvador HERRERO (Univ of Valencia, Spain)

***Drosophila* olfactory neuroecology** – Marcus C. Stensmyr (Univ of Agricultural Sciences, Sweden)

Exploring the viral world in Lepidoptera using Metagenomics – Mylène OGLIASTRO (DGIMI, France)



[Arthropoda workshop](#) – organized by Johannes SCHINKO

Patterning and segmentation

Evolution of dorsoventral patterning in insects – Siegfried ROTH (Biocenter, Univ of Koeln, Germany)

The evolution of Arthropod segmentation : a fresh look at the *Drosophila* paradigm – Michael AKAM (LDE, Univ of Cambridge, UK)

Cell dynamics during posterior elongation and segmentation in *Tribolium* – Anna GILLES (IGFL, France)

Posterior growth in *Tribolium* – Johannes SCHINKO (IGFL, France)

Evolutionary developmental biology

Development, selection and species diversification – Abderrahman KHILA (DGE ENS Lyon, France)

Alary and thoracic alary-related muscles : functions in flies, arthropods and beyonds ? – Alain VINCENT (CBD CNRS, France)

Genetic regulation

How to build a spider : regulation of cell fate and segmentation in *Parasteatoda tepidariorum* – Alistair McGREGOR (Oxford Brookes University, UK)

Genetic basis for the evolution of organ morphogenesis. The case of insect trachea – Xavier FRANCH (IBE, Spain)

Regulatory evolution and the diversification of pigmentation patterns in *Drosophila* – Nicolas GOMPEL (LMU München, Germany)