

PROGRAMME

#### Monday, 22 January 12:00 - 13:00 Welcome coffee 13:00 - 14:00 **Opening Session** Chair/s: John DE VOS 13:00 Welcome words by the FSSCR President and the Local Organizing Committee. 13:15 **OS-01-Keynote Speaker** Deconstructing human musculo-skeletal development in vitro Olivier Pourquié, Department of Genetics, Harvard Medical School and Department of Pathology, Brigham and Women's Hospital, Boston, United States | Harvard Stem Cell Institute, Harvard University, Cambridge, United States 14:00 - 15:05 Self-organization of tissues and organoids Chair/s: Cécile MARTINAT, Nathalie DIDIER 14:00 S1-01-Invited Speaker Modelling of epithelial polarity defects in iPSC-derived intestinal organoids Marianna Parlato, Institut Imagine, Paris, France 14:25 S1-02-Oral Short Talk Coordination between cell specification and a cadherin switch underlies the potential of self-organization in gastruloids Alexandre Mayran, Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland 14:40 S1-03-Oral Short Talk Deciphering microenvironment cues to maintain human notochordal cells phenotype and to drive their maturation toward adult disc cells Julie Warin, Nantes Université, Oniris, CHU Nantes, INSERM, Regenerative Medicine and Skeleton, RMeS, UMR 1229, Nantes, France 14:55 S1-04-Poster Teaser Recapitulating cranial myogenesis in stem cell-based ex vivo models Giada Mura, Stem Cells & Development Unit, UMR CNRS 3738, Institut Pasteur, Paris, France 14:56 S1-05-Poster Teaser Development of a retinal engineering tissue for the treatment of retinal degenerative disorders

Camille Geiger, INSERM U861, I-Stem, AFM, Institute for Stem cell Therapy and Exploration of Monogenic diseases, Corbeil-Essonnes, France | Université Paris-Saclay, Université d'Evry, Corbeil-Essonnes, France | Centre d'Etude des Cellules Souches, Corbeil-Essonnes, France



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Institut Cochin, Paris, France

S2-05-Sponsor Presentation

In organoids we trust (to model human developmet). Ludovic Vallier, Berlin Institute of Health, Berlin, Germany

Enhancing Genetic Stability in Human Pluripotent Stem Cells Maintained as

Camille TEMPIER LEMEY, STEMCELL Technologies, Montpellier, France

S2-04-Invited Speaker

**Single Cells** 

16:45

17:10



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#### 17:15 S2-06-Poster Teaser Expanding gastruloids potential through high throughput imaging-based screening Yuliia Romaniuk, School of Life Sciences, Ecole Polytechnique Fédérale de Lausanne (EPFL), Lausanne, Switzerland 17:16 S2-07-Poster Teaser Enhancing CRISPR-Cas9 Efficiency in iPS Cells Using the NanoBlades **Pseudoviral Vectorization System** Ambre LELEU, SupBiotech/CEA DRF IBFJ SEPIA - SupBiotech Ecole d'Ingénieur, Villejuif, France 17:17 S2-08-Poster Teaser IALI : a model of airway epithelium derived from iPSC to study SARS-CoV-2 infection and antiviral drugs effectiveness. Lisa MORICHON, CEMIPAI: Centre d'Etude des Maladies Infectieuses et Pharmacologie Anti-Infectieuses, CNRS UAR3725, Montpellier, France | Institute of Regenerative Medecine and Biotherapy, Université de Montpellier, CHU de Montpellier, INSERMU1183, Montpellier, France 17:18 S2-09-Poster Teaser Neural organoids from progeroid and neurodegenerative Cockayne syndrome display defects correlated with the clinical condition Tara Fournier, Molecular Mechanisms of Pathological and Physiological Ageing, Dept. of Developmental and Stem Cell Biology, CNRS UMR3738, Institut Pasteur, Paris, France | Sorbonne Université, Collège Doctoral, F-75005, Paris, France 17:19 S2-10-Poster Teaser Engineered 3D muscle constructs for modeling Duchenne Muscular Dystrophy and high-throughput screening of novel therapeutics Ghislain BANOS, Univ Paris Est Créteil, INSERM, EFS, IMRB, F-94010, Créteil, France 17:20 S2-11-Poster Teaser IPearls: Large-scale production of pluripotent stem cell-derived liver organoids through liquid-core encapsulation Zoé Tiprez, UMR\_S 1193, INSERM/Université Paris-Saclay, Villejuif, France | Fédération Hospitalo-Universitaire (FHU) Hépatinov, Villejuif, France 17:30 - 19:30 Wine & Cheese welcome reception

17:30 - 19:30 **Posters session 1** 





	Tuesday, 23 January
09:00 - 10:35	Stem cell niches and regeneration I Chair/s: Charles DURAND, Sacha DELABROUSSE
09:00	S3-01-Invited Speaker <b>Guiding Intestinal Stem Cell Fate</b> Kim Jensen, NNF Center for Stem Cell Medicine University of Copenhagen, Copenhagen, Denmark
09:25	S3-02-Oral Short Talk <b>Shaping the neuroinflammatory environment to promote retinal</b> <b>regeneration</b> Patrick Pla#, Paris-Saclay Institute of Neuroscience, CNRS, Université Paris- Saclay, 91400, Saclay, France
09:40	S3-03-Oral Short Talk <b>Pvf1-PvR-mediated crosstalk between the trachea and the gut stimulates</b> <b>intestinal stem cell migration and divisions during gut regeneration</b> Julien Colombani, University of Copenhagen - Department of Biology, Copenhagen, Denmark
09:55	S3-04-Invited Speaker <b>Contribution of macrophage ontogeny to health and disease</b> Elisa GOMEZ PERDIGUERO, Institut Pasteur, Paris, France
10:20	S3-05-Sponsor Presentation <b>Redefining cell line genetic characterization &amp; QC with Optical Genome</b> <b>Mapping</b> Alicia BERTOLOTTI, Bionano, San Diego, United States
10:25	S3-06-Poster Teaser A self-sustained quiescence muscle stem cell niche triggered by Notch signalling. Eleni Chrysostomou, Mondor Institute, Université Paris-Est Créteil, INSERM, Créteil, France
10:26	S3-07-Poster Teaser Live imaging reveals perturbed symmetric stem cell divisions in a mouse model of Duchenne Muscular Dystrophy Brendan Evano, Stem Cells and Development, Department of Developmental and Stem Cell Biology, Institut Pasteur, Universite? Paris Cite?, Paris, France   CNRS UMR 3738, Institut Pasteur, Paris, France



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#### 10:27 S3-08-Poster Teaser From emergence to niche settling: single-cell tracing and profiling of Hematopoietic Stem Cell precursors in the zebrafish embryo Léa Torcq, Institut Pasteur, Université Paris Cité, CNRS UMR3738, Department of Developmental and Stem Cell Biology, Paris, France | Sorbonne Université, Collège doctoral, Paris, France 10:28 S3-09-Poster Teaser Distinct dynamics of muscle stem cell subtypes associated with the hyperplasia decline in trout Sabrina Jagot, INRAE, UR1037 Laboratory of Fish Physiology and Genomics, Rennes, France | INRAE, Oniris, PAnTher, UMR 703, Oniris, Nantes, France 10:29 S3-10-Poster Teaser Stem cell niche plasticity in acute myeloid leukemia Lakshmi Sandhow, 1Department of Medicine Huddinge, Center for Hematology and Regenerative Medicine, Karolinska Institute, Karolinska University Hospital, Stockholm, Sweden | Leukemia and Niche Dynamics Lab, Institut Cochin, INSERM U1016, CNRS UMR8104, Universite Paris Cite, Paris, France 10:30 S3-11-Poster Teaser Combination of biomaterial and stem cell-based strategies to improve cortical repair Annousha Devi GOVINDAN, Université de Poitiers-INSERM U1084, Laboratoire des Neurosciences Expérimentales et Cliniques (LNEC), Poitiers, France 10:35 - 11:20 Coffee Break - Exhibition - Posters 11:20 - 12:45 Stem cell niches and regeneration II Chair/s: Leïla MAOUCHE CHRETIEN, Patrick PLA 11:20 S4-01-Invited Speaker Hydractinia i-cells, their contribution to development and regeneration, and their exceptional genomic stability Uri FRANK, University of Galway, Galway, Ireland 11:45 S4-02-Oral Short Talk Perturbed stem cell function following exposure to systemic signals associated with pathologies Barbara Gayraud-Morel, 1Stem Cells & Development, Department of Developmental & Stem Cell Biology, Paris, France | 2CNRS UMR 3738, Institut Pasteur, Paris, France 12:00 S4-03-Invited Speaker Disentangling the microenvironment regulation for improved treatment of myeloid malignancies

Simon MENDEZ-FERRER, University of Cambridge, Cambridge, United Kingdom



## 6<sup>th</sup> Annual Meeting PARIS 2024

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12:25	S4-04-PEPR Presentation Introduction to the Priority Research Program on Women's Health, Couples' Health Jean ROSEMBAUM, INSERM, Institut Thématique BCDE, Paris, France
12:35	S4-05-PEPR Presentation Introduction to the Priority Research Program on Biotherapies and Bioproduction of Innovative Therapies (BBTI PEPR) Cécile MARTINAT, INSERM UMR861 Univ. Evry/Univ. Paris-Saclay, I-Stem, Corbeil-Essone, France
12:45 - 14:15	Lunch - Exhibition - Posters
13:30 - 14:15	MEET THE EDITORS Louis Armand
13:30	MTE-01-Keynote Speaker <b>"MEET THE EDITORS" ROUND TABLE</b> Laurent DAVID, FSSCR, Paris, France
14:15 - 16:00	<b>Sun Rise: Cancer stem cells</b> Chair/s: Emmanuelle CHARAFE, Julie PANNEQUIN
14:15	S5-01-Invited Speaker <b>Understanding the tissue specific mechanisms by which deregulated Wnt</b> <b>signalling transforms the colon and liver.</b> Owen SANSOM, CRUK Scotland Institute, Glasgow, United Kingdom
14:40	S5-02-Oral Short Talk An early neoplasia index (ENI10), based on molecular identity of CD10 cells and associated stemness biomarkers, is a predictor of patient outcome in many cancers Veronique Maguer-Satta, CRCL, Inserm U1052-CNRS UMR5286, Lyon, France   Centre Leon Bérard, Lyon, France
14:55	S5-03-Oral Short Talk <b>Common and distinct activities of EMT factors of the ZEB family in</b> <b>glioblastoma cancer stem cells</b> Inês Coutinho, Stem Cells & Neurogenesis group; i3S Institute for Research and Innovation in Health, University of Porto, Porto, Portugal
15:10	S5-04-Invited Speaker <b>Comparative roadmap of pluripotent reprogramming and oncogenic</b> <b>transformation</b> Aurélia HUYGHE, Cancer Research Center of Lyon, Lyon, France
15:35	S5-05-Invited Speaker <b>Uprooting breast tumor heterogeneity</b> Christophe GINESTIER, Cancer Research Center of Marseille, Marseille, France



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16:00 - 16:45	Coffee Break - Exhibition - Posters
16:45 - 18:35	<b>Embryo and pluripotency</b> Chair/s: Pierre SAVATIER, Robin JOURNOT
16:45	S6-01-Invited Speaker <b>Adjusting the timing of mammalian development</b> Aydan Bulut-Karslioglu, Max Planck Institute for Molecular Genetics, Berlin, Germany
17:10	S6-02-Oral Short Talk <b>Early germline development in Down syndrome</b> Camille Dion, MRC Laboratory of Medical Sciences, London, United Kingdom
17:25	S6-03-Oral Short Talk In vitro cell competition between pluripotent stem cell lines predicts their ability to make chimeric embryos in primates Anais Amzal, Stem-Cell and Brain Research Institute, INSERM U1208, Bron, France   Université Claude Bernard Lyon 1, Villeurbanne, France
17:40	S6-04-Invited Speaker Integrated approaches to understand human peri-implantation development as a gateway to improve in vitro fertilization Laurent DAVID, Nantes Université, Nantes, France
18:05	S6-05-Sponsor Presentation C-Stem <sup>™</sup> : Unleash the mass-market potential for iPSC-derived cell therapies. Caroline ROYER, Treefrog Therapeutics, Pessac, France
18:10	S6-06-Poster Teaser <b>An essential developmental role for orphan nuclear receptors</b> Nicola Festuccia, Epigenomics, Proliferation and the Identity of Cells Group, Department of Developmental and Stem Cell Biology, Institut Pasteur, Paris, France
18:11	S6-07-Poster Teaser Changes in fatty acid metabolism facilitate the maturation of axial progenitors in mouse gastrulae Lahiru-Chamara Weerasinghe-Arachchige, CNRS UMR7277, INSERM U1091, Institut de Biologie Valrose, Université Cote d'Azur, Nice, France
18:12	S6-08-Poster Teaser <b>PI3K/AKT signalling orchestrates ICM maturation and proper epiblast and</b> <b>primitive endoderm specification</b> Adèle* Micouin, Institut Pasteur, Unit of Epigenomics, Proliferation, and the Identity of Cells, Paris, France   Institut Pasteur, CNRS UMR3738, Department of Developmental and Stem Cell Biology, Paris, France   Universite? Paris Cite?, Paris, France

FSSCR French Society for Stem Cell Research WWW.fsscr.fr	6 <sup>th</sup> Annual Meeting PARIS 2024 22-24 January
18:13	S6-09-Poster Teaser <b>NODAL signalling is required for blastocyst development in the mouse</b> Futura Gattobigio*, Institut Jacques Monod, Paris, France
18:14	S6-10-Poster Teaser Gene networks controlling functional cell interactions in the pig embryo and embryonic stem cells revealed by single-cell omics study Hervé Acloque, Animal Genetics and Integrative Biology (GABI) Université Paris Saclay, INRAE, AgroParisTech, Jouy en Josas, France
18:15	S6-11-Poster Teaser <b>Establishing new immunodeficient large animal model for receiving human</b> <b>induced pluripotent stem cell-derived hematopoietic grafts.</b> Mathias Brunet-Manquat, Sorbonne Université, INSERM, Centre de Recherche Saint-Antoine (CRSA), Paris, France   EFS Ile de France, Unité d'Ingénierie et de Thérapie Cellulaire, Créteil, France
18:16	S6-12-Oral Short Talk <b>Presentation of the UIC, the worldwide professional association</b> <b>representing the railway sector and promoting rail transport</b> Philippe LORAND, UIC, Paris, France
18:30 - 20:00	Posters session 2





	Wednesday, 24 January
09:00 - 10:45	<b>Cell fate</b> Chair/s: Allison BARDIN, Léa TORCQ
09:00	S7-01-Invited Speaker <b>Adult heart regeneration in zebrafish</b> Didier STAINIER, Max Planck Institute for Heart and Lung Research, Bad Nauheim, Germany
09:25	S7-02-Invited Speaker <b>Fate specification of glandular epithelial stem cells</b> Silvia FRE, Institut Curie, Paris, France
09:50	S7-03-Invited Speaker <b>Modeling human trunk development and associated sensory-motor circuits</b> Stéphane NEDELEC, Institut du Fer à Moulin, Paris, France   Inserm, UMR-S 1270, Paris, France   Sorbonne Université, Science and Engineering Faculty, Paris, France
10:15	S7-04-Oral Short Talk <b>Decoding the intrinsic and extrinsic molecular regulations leading to HSC</b> <b>generation</b> Laurent Yvernogeau, Institut de Biologie Paris Seine, Laboratoire de Biologie du Développement Team: Migration et différentiation des cellules souches hématopoïétiques, Paris, France
10:30	S7-05-Sponsor Presentation <b>Studying 3D Organoïds with Live Cell Imaging and Analysis</b> Fanny MARTIN, IZIBIO Tech, Paris, France
10:35	S7-06-Poster Teaser <b>Skeletal muscle cell identity is sustained by specific histone variants</b> Joana Esteves de Lima, Université Paris-Est - INSERM U955, CRETEIL, France
10:36	S7-07-Poster Teaser A BMP mediated switch in PAX3/7 transcriptional activity to pattern the sensory spinal cord Vanessa RIBES, Institut Jacques Monod, UMR7592, CNRS, Université Paris Cité, Paris, France
10:37	S7-08-Poster Teaser A 20 mGy-irradiation of hematopoietic stem cells leads to a permanent and heritable endoplasmic reticulum stress that compromises their number and functionality Stéphanie MORENO, CEA, Fontenay-aux-Roses, France



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10:38	S7-09-Poster Teaser Delineating primary cilia-mediated signaling pathway in the muscle stem cell Anna Rausch de Traubenberg, Institut NeuroMyoGène - Physiopathologie et génétique du neurone et du muscle (INMG-PGNM), CNRS UMR5261, Inserm U1315, Université Claude Bernard Lyon 1, Lyon, France
10:39	S7-10-Poster Teaser Interconnected Dysfunction: Exploring Shared Defects in Cardiomyocytes and Neurons in Catecholaminergic Polymorphic Ventricular Tachycardia Albano Meli, PhyMedExp - Inserm U1046 - CNRS UMR9214, Montpellier, France
10:45 - 11:30	Coffee Break - Exhibition - Posters
11:30 - 12:30	Disease Modelling and Translational Chair/s: John DE VOS, Leslie CARON
11:30	S8-01-Oral Short Talk Development and emerging clinical data of a human pluripotent stem cell derived inhibitory interneuron candidate, NRTX-1001, for drug-resistant focal epilepsy. yves MAURY, Neurona Therapeutics Inc., South San Francisco, United States
11:45	S8-02-Keynote Speaker Gene therapy of Sickle cell Disease : where we stand Marina CAVAZZANA, Hopital Necker, Paris, France   Institut Imagine, Paris, France
12:30 - 12:50	Closing Session