

ETRS MEETING 2022 LYON

WEDNESDAY SEPTEMBER 14, 2022

08:30 – 17:30

EARLY CAREER PRE-CONFERENCE

INSTITUT DE BIOLOGIE ET CHIMIE DES PROTEINES (IBCP)
7 PASSAGE DU VERCORS – 69367 LYON

THURSDAY SEPTEMBER 15, 2022

10:00 – 12:00 ETRS board meeting (IBCP)

ECOLE NORMALE SUPERIEURE DE LYON

15 Parvis René Descartes, 69007 Lyon

Descartes amphitheater

12:00 - 13:30 Welcome participants / coffee / placement of posters session 1

13:30 Welcome words from ETRS and Cosmet'in Lyon societies

13:45 **SESSION I: Tissue regeneration lessons from organisms' diversity**

discussion leaders: Tania Shaw (Kings College London, UK) and Florence Ruggiero (ENS/Lyon University, France)

13:45 **Eric Rottinger**, Institute for Research on Cancer and Aging, University Côte d'Azur, Nice, France

Insight into the tissular, cellular and molecular mechanisms driving whole body regeneration in the sea anemone *Nematostella vectensis*

(25 min + 5 min questions)

14:15 **Nadia Mercader Huber**, Institute of Anatomy, University of Bern, Switzerland.

Origin, fate and role of fibroblasts during heart regeneration in the zebrafish

(25 min + 5 min questions)

14:45 [Presentations selected from abstracts \(8 min + 5 min questions each, **abstracts O1-O5**\)](#)

Trevor R. Leonardo, University of Illinois Chicago, Chicago, IL, USA

Temporal dynamics of gene regulation in human tissue repair and regeneration

Laurie Nemoz-Billet, ENS-Université de Lyon, CNRS UMR 5242, Lyon, France

Unravelling motor neurons identity and new cell-extracellular matrix interplay in zebrafish motor axon development and regeneration

Dieter Groneberg, Julius-Maximilian University Würzburg, Germany

Nitric oxide sensitive guanylyl cyclase as modulator of fibrosis in various mouse pathologies

Ursula Mirastschijski, University of Bremen, Bremen, Germany

Neo-endosymbiotic keratinocytes with autonomous oxygen production for chronic wound healing

Kenneth W. Liechty, University of Colorado Department of Surgery, Aurora, CO, USA

Promoting improved healing: Lessons learned from the fetus

16:00 - 17:30 COFFEE BREAK / POSTER SESSION 1 (abstracts P1-P22)

Descartes amphitheater

17:30 KEYNOTE LECTURE - Charles Lapière Memorial Lecture

discussion leaders: Patricia Rousselle (CNRS / Lyon University, France) and Vincent Ronfard (Cutiss, France)

Graziella Pellegrini, Centre for regenerative medicine Stefano Ferrari, Modena, Italy
Regeneration of the entire human epidermis using transgenic stem cells.

19:30 - 21:30 WELCOME RECEPTION

Chapelle de la Trinité - 31 Rue de la Bourse, 69002 Lyon

FRIDAY SEPTEMBER 16, 2022

Descartes amphitheater

8:30 SESSION II: Tissue Engineering and 3D Printing

discussion leaders: Christophe Egles (UTC Compiègne, France) and Ryan Moseley (University of Cardiff, UK).

8:30 Christophe Marquette, 3D. FAB, Institut de Chimie et Biochimie Moléculaires et Supramoléculaires, University of Lyon, France

3D Bioprinting for tissue engineering

(25 min + 5 min questions)

9:00 [Presentations selected from abstracts \(8 min + 5 min questions each, **abstracts O6-O8**\)](#)

Amelie Reigl, University hospital Würzburg, Würzburg, Germany

Assembloid: combination of iPSC-derived complex skin organoids with a vascular network for fibrosis and infection studies

Patrick Mulder, Association of Dutch Burn Centres, Beverwijk, The Netherlands

Full skin equivalents to simulate burn wound healing and inflammation

Mourad Bekhouche, Tissue Biology & Therapeutic Engineering CNRS, Université Lyon, France

Fibrin-based hydrogels for dental pulp regeneration by mesenchymal stem cells.

09:45 - 10:45 COFFEE BREAK / POSTERS SESSION 1 (abstracts P1-P22)

Descartes amphitheater

10:45 SESSION III: Epithelial insults and innovative therapies

Discussion leaders : Luisa DiPietro (University of Illinois at Chicago, USA) and Jean Jacques Lataillade (Service de Santé des Armées, France)

10:45 Leena Bruckner Tuderman, Faculty of Medicine, Freiburg Institute for Advanced Studies, Germany

Inflammation and fibrosis in epidermolysis bullosa: mechanisms and therapeutic perspectives

(25 min + 5 min questions)

11:15 **Ernst Reichmann**, Tissue Biology Research Unit, University Children's Hospital, Schlieren.

DenovoSkin: a significant step forward in burn and plastic surgery.

(25 min + 5 min questions)

11:45 [Presentations selected from abstracts \(8 min + 5 min questions each, **abstracts O9-O11**\)](#)

Martin Barbier, CHU de Québec-Université Laval Research Center, Québec, Canada
Gene therapy and bilayered skin substitutes as a potential treatment for Recessive Dystrophic Epidermolysis Bullosa skin wounds

Chloé Laigle, Tissue Biology & Therapeutic Engineering CNRS, Université Lyon and 3-D Matrix Europe, France

Epidermal regeneration guidance of an innovative biomimetic matrix

Andrew Leask, College of Dentistry, University of Saskatchewan, Saskatoon, SK, Canada

A novel treatment for scleroderma fibrosis: The CCN3-based peptide BLR-200 impairs bleomycin-induced skin fibrosis

Descartes amphitheater

12:30 LYONBIOPOLE AND ADERLY FORUM

Florent Gerbaud, Alderly, Invest in Lyon, Lyon, France

Lead Advisor - One Health and Life Sciences

Lyon's Ecosystem Top Emerging Tissue Repair companies

Discussion leader, Mélanie Denizot LyonBiopole, Lyon France

Baptiste Godet, Healshape, Villeurbanne, France

UR SHAPE, a resorbable breast bioprosthesis allowing tissue regeneration from patients' own cells."

Jean-André Lapart, BioMeca, Lyon, France

Innovative biomechanical solutions to validate biological tissues' integrity

13:00 - 14:30 LUNCH BREAK AND POSTERS SESSION 2 (abstracts P23-P44)

(13:45 - 14:15 ETRS General Assembly)

14:30 – 16:30 PARALLEL SESSIONS IVa and IVb

Descartes amphitheater

14:30 SESSION IVa: Dermo-cosmetic approaches of skin regeneration and wellness

Discussion leaders: Hans-Oliver Rennekampff (Würselen, Germany) and Nico Forraz (CTI Biotech, Lyon, France)

14:30 **Nadira Frescaline**, Department of Microbiology, Institut Pasteur, Paris, France

Advances in skin grafting and therapeutic potential of cold atmospheric plasma in the treatment of burn wounds

(25 min + 5 min questions)

15:00 **Colin McGuckin**, CtiBiotech, Meyzieu-Lyon, France

Regenerative Medicine and 3D bioprinting for Dermo-cosmetic regeneration

(25 min + 5 min questions)

15:30 [Presentations selected from abstracts \(8 min + 5 min questions each, abstracts O12-O15\)](#)

Anne-Laure Bulteau, LVMH Recherche. Life Science Dept, Saint Jean de Braye, France

Reconstruction of reconstructed human epidermis containing IPS-derived keratinocytes treated with mitochondrial stimulating plant extracts

Kohta Kanazawa, Hayashibara Co., Ltd and Tissue Biology & Therapeutic Engineering CNRS, Université Lyon, France

Identification of biglycan-positive extracellular vesicles as determinant of epidermal proliferation and renewal

Alexis Desmoulière, SILAB and Neuropathies and Therapeutic Innovations, UR 20218, Limoges University, France

Neurovascular interactions in 2D and 3D skin equivalent models

Christopher Leon-Valdivieso, University of Montpellier, CNRS, ENSCM, Montpellier, France

Towards scarless healing with the use of hybrid collagen-based dermal substitutes: a study on their contraction, physical and biological properties over time

Conference Room

14:30 SESSION IVb: Bone/cartilage repair

Discussion leaders: Frédéric Mallein-Gerin (Lyon University, France) and Willeke Daamen (Radboud University, Netherlands).

14:30 **Ivan Martin**, Tissue Engineering, Department of Biomedicine University Hospital Basel, Switzerland

Regenerative engineering: designing grafts, processes and signals

(25 min + 5 min questions)

15:00 **Céline Colnot**, Mondor Institute of Biomedical Research INSERM U955, Créteil Medicine School, Paris, France

Diverse origins and functions of skeletal stem/progenitor cells in bone regeneration

(25 min + 5 min questions)

15:30 [Presentations selected from abstracts \(8 min + 5 min questions each, abstracts O16-O19\)](#)

Pauline Wosinski, Université Paris Cité, CNRS, INSERM, ENVA, Paris, France

Enzyme-controlled, nutritive hydrogel for mesenchymal stromal cell survival and paracrine functions

Melissa Kosovari, Laboratoire d'Ingénierie de Surface, Université Laval, Québec, Canada

Surface structuring at the nano and micrometric scale for cell differentiation

Delphine Vertu-Ciolino, Edouard Herriot Hospital and Tissue Biology & Therapeutic Engineering CNRS, Université Lyon, France

Design of biocompatible nasal cartilage grafts by 3D printing and tissue engineering

Daniel Kronenberg, Institute of Musculoskeletal Medicine, Muenster University, Germany
Modulation of BMP-1 in early stages of fracture repair does not benefit the healing outcome under normal conditions.

16:30 - 17:30 COFFEE BREAK / POSTERS SESSION 2 (abstracts P23-P44)

Descartes amphitheater

17:30 - 19:00 **SESSION V: Young investigator award session**

(In alphabetical order, 8 min + 5 min questions each, [abstracts O20-O26](#))

Discussion leaders: Ulrich auf dem Keller (Technical University of Denmark) and Amelie Reigl (University of Würzburg, Germany).

Emilie Attiogbe, LOEX, Université Laval, Québec, Canada

Autologous, Vascularized and Immunocompetent 3D skin model for wound healing studies

Vahap Canbay, Technical University of Denmark, Dept. of Biotechnology and Biomedicine, Kgs. Lyngby, Denmark

Functional characterization of dermokine in epidermal differentiation

Kellen Chen, Stanford University, Stanford, CA & University of Arizona College of Medicine, Tucson, AZ, USA

Characterization of mechanoresponsive inflammatory cells during wound healing

Chen Han, University of Illinois Chicago, Chicago, IL, USA

Microfibril-associated protein 5 regulates skin fibroblast function and scar formation

H. Ibrahim Korkmaz, Amsterdam UMC, VUmc, Amsterdam Movement Sciences Institute, Amsterdam, The Netherlands

Computational modeling of the post-burn immune response

Katrin Peckert-Maier, Universitätsklinikum Erlangen, Erlangen, Germany

Pre-incubation of corneal donor tissue with soluble CD83 improves graft survival via the induction of pro-resolving macrophages

Rana Smaida, INSERM - UMR 1260, Regenerative Nanomedicine, Strasbourg, France

Development of implantable therapeutic wound dressings combined with stem cells for bone and cartilage regeneration

19:30 - 21:00 BOAT TRIP TO THE CONFERENCE DINER

Abbaye de Collonges - Paul Bocuse

SATURDAY SEPTEMBER 17, 2022

Descartes amphitheater

9:00 **SESSION VI: Cell dynamics in tissue remodeling**

discussion leaders: Catherine Moali (Lyon University, France) and Alexis Desmoulière (University of Limoge, France)

9:00 **Boris Hinz**, Laboratory of Tissue Repair and Regeneration, University of Toronto, Canada

Mechanical education of therapeutic mesenchymal stromal cells for enhanced tissue repair

(25 min + 5 min questions)

9:30 **Patrizia Ferretti**, Stem Cell and Regenerative Medicine Section, UCL Great Ormond Street Institute of Child Health, London, UK

Stem cells for modelling human disease and response to damage.

(25 min + 5 min questions)

10:00 Presentations selected from abstracts (8 min + 5 min questions each, [abstracts O27-O29](#))

Tanya Shaw, King's College London, London, UK.

Autocrine IL6 drives cell and extracellular matrix alignment in fibrotic fibroblasts

Dmytro Royzman, Friedrich-Alexander-Universität Erlangen-Nürnberg, Erlangen, Germany

The soluble CD83 molecule accelerates wound closure and improves wound healing quality

Maya Ezzo, Keenan Research Centre for Biomedical Science St. Michael's Hospital, Toronto, Canada

Macrophage acute contact initiates myofibroblast activation by intracellular stress in a calcium-gap-junction process

10:45 - 11:15 COFFEE BREAK

Descartes amphitheater

11:15 **SESSION VII: Chronic, infected wounds and biomarkers**

discussion leaders: Dominique Sigaudou Roussel (Lyon University) and Phil Stephens (Cardiff University, UK)

11:15 **Marjana Tomic-Canic** (University of Miami Miller School of Medicine, Miami (FL), USA)

From understanding pathophysiology of chronic wounds to development of biomarkers

(25 min + 5 min questions)

11:45 Presentations selected from abstracts (8 min + 5 min questions each, [abstracts O30-O32](#))

Gabriela Cabral, Akribes Biomedical GmbH, Vienna, Austria

Development of personalized treatment for chronic wounds

Helen Brown, School of Dentistry, Cardiff University, Cardiff, Wales, UK

Conditioned medium from fibroblasts and oral progenitor cells inhibits growth and biofilm formation of Staphylococcus isolates

Louise Bundgaard, Technical University of Denmark, Kgs. Lyngby, Denmark

Wound exudate degradomics in clinical wound management

12:40 **Prizes/Closing ceremony**

Patricia Rousselle (CNRS / Lyon University, France), ETRS Meeting Chair

Ulrich auf dem Keller (Technical University of Denmark), President of ETRS

Nico Forraz (CTI Biotech, Lyon, France), President of Cosmet'in Lyon

ETRS Young Investigator Awards
Cosmet'in Lyon Oral Communication Award
ETRS Poster Awards
French Society for Matrix Biology Poster Award

Closing Remarks

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