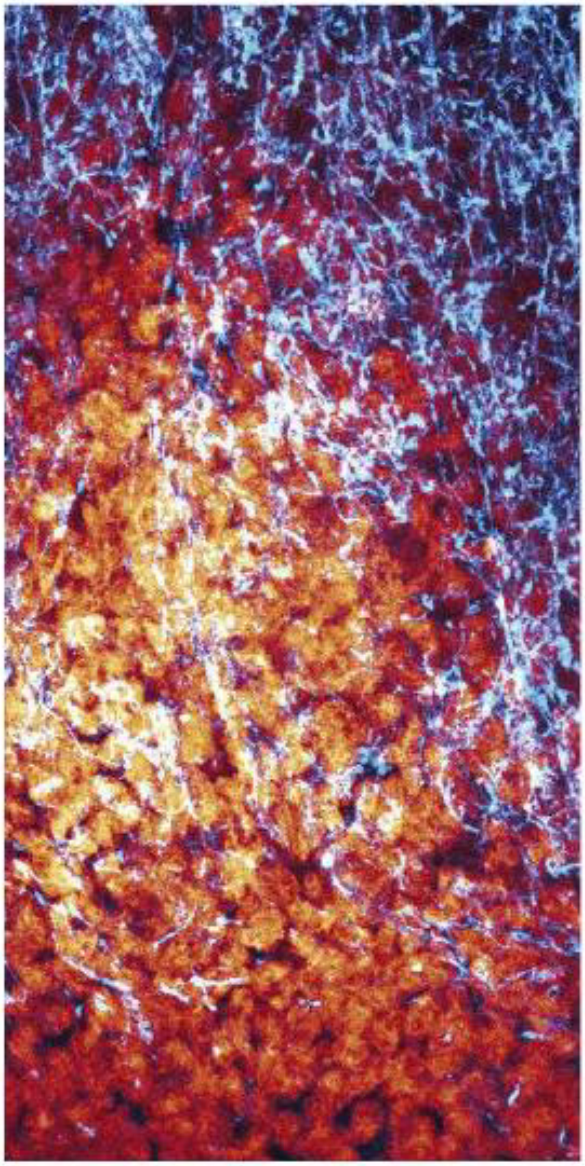
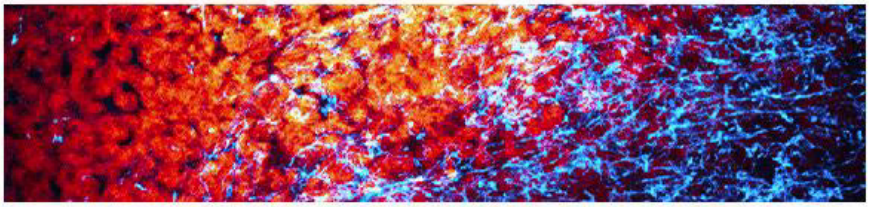
MATRIX BIOLOGY EUROPE 2024

24 -27 SEPTEMBER, 2024

Lyon - France





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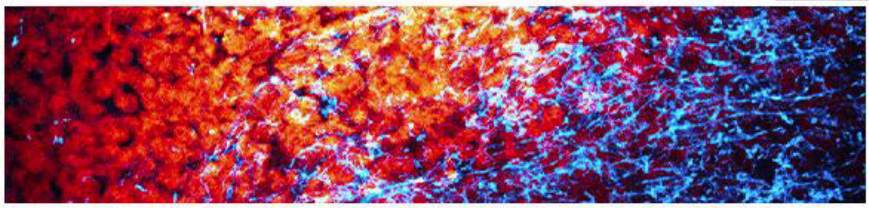


WELCOME TO MBE2024

The Matrix Biology Europe (MBE) conference is the premier European scientific event for the extracellular matrix research community, held every two years in a different European city. Following the success of the 2022 meeting in Florence, Italy, we are thrilled to host the 2024 edition in the charming city of Lyon, France, at the École Normale Supérieure de Lyon.

With a history of attracting hundreds of experts in matrix biology, the MBE conferences have become a unique platform to present groundbreaking research and to engage with a highly qualified scientific community. MBE2024 is primed to be the international stage for significant discoveries and new concepts in extracellular matrix research. This conference will bring together scientists from academia, medicine, and industry to explore all facets of extracellular matrix research and to interact with our invited speakers and sponsors. Additionally, attendees will have the opportunity to hear from the Rupert Timpl awardee and witness live presentations by candidates for the Dick Heinegård Young Investigator Awards.

Both Local and International Organizing Committees have assembled a stellar lineup of internationally recognized experts and rising group leaders as invited speakers and discussion leaders. The scientific program includes plenary sessions, parallel workshops, poster sessions and ample opportunities for informal interactions. Specifically, we have devoted significant space for short talks and extended poster sessions, recognizing these as integral parts of the meeting. In addition, we have introduced an ‘ECM Breakthrough’ session, featuring presentations on the latest findings in the field.

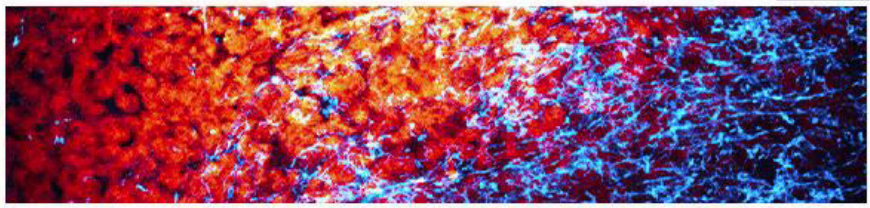
As a special addition to the traditional MBE program, MBE2024 will begin with a half-day satellite meeting, Youth@MBE2024, sponsored by L'Oréal R&D and organized exclusively by and for graduate students and postdoctoral fellows. This meeting offers young researchers a valuable opportunity to present their work and expand their professional networks, with a 'Meet the Sponsors' session organized to further strengthen these interactions.

MBE2024 aspires to create a collegial atmosphere that fosters the exchange of new ideas among senior investigators, emerging young scientists, and students. We envision this conference as a unique forum for our community, offering an exceptional opportunity to welcome newcomers to the field and to present and exchange cutting-edge ideas and data in matrix biology research.

Finally, we would like to express our gratitude to our sponsors, including academic institutions, societies, and private companies for their generous financial support.

Thank you for joining us in Lyon for this remarkable scientific adventure!

Florence Ruggiero
Conference Chair



SPONSORS/EXHIBITORS

The organising committees wish to express its gratitude to the following companies for their financial support.

SATELLITE MEETING

"MEET THE SPONSORS" ON TUESDAY, 24 SEPTEMBER (STANDING TABLES, ATRIUM)
14:30-15:30

GENERAL INFORMATION (a)

EVENT VENUE

The Matrix Biology Europe Meeting will take place entirely at the Monod site of the Ecole Normale Supérieure (ENS) de Lyon and more specifically at the Mérieux Amphitheater, located place de l'Ecole in the 7ème district (arrondissement) of Lyon.

To reach the ENS de Lyon by public transportation, you can use:

- **From the Lyon-Saint-Exupéry airport:**

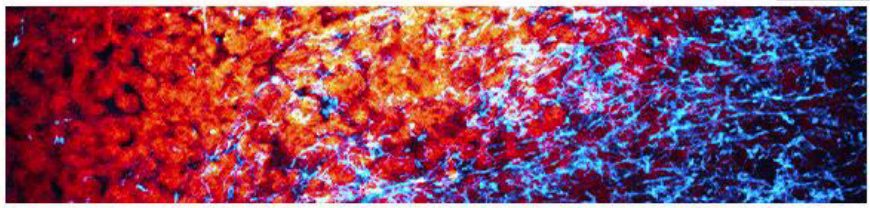
Take the Rhônexpress tram to the Part-Dieu railway station, then change to the metro (Line B), take a train for Direction SAINT-GENIS-LAVAL HÔPITAL LYON SUD to the station DEBOURG.

- **From the Part-Dieu railway station:**

Take the metro (Line B) for Direction SAINT-GENIS-LAVAL HÔPITAL LYON SUD to the station DEBOURG.

- **From the Perrache railway station:**

Take the tram (Line T1) to the ENS LYON stop for the Monod site of the Ecole Normale Supérieure (ENS) de Lyon.



GENERAL INFORMATION (b)

REGISTRATION FOR MBE2024

The registration desk will open on Tuesday, 24 September at 13:00. Badges and welcome packs can be picked up at that time and throughout the entire conference during opening hours.

REGISTRATION FOR Youth@MBE2024

Only for attendees who have registered to the Youth@MBE2024 meeting:
The registration desk will open on Tuesday, 24 September from 8:00 to 9:00 am. Badges and welcome packs (for both MBE2024 and Youth@MBE2024) should be picked at that time.

Attendance Certificates

If you would like a certificate of attendance for the conference, please contact Fellah MOUFOUK (fellah.moufouk@ens-lyon.fr) after Tuesday, 24 September 2024 or meet her at the registration desk.

Badges

For security reasons, badges must be worn at all times throughout the conference and social events. Your badge will be your entrance ticket to the venue and all scientific sessions.

Wi-Fi

Wi-Fi is available on site. Network: **z518437** Password: **mqhgHmCp**

Cash Dispenser

A cash dispenser (La Banque Postale) is available approximately 200 feet away from the ENS de Lyon.

Cloak room

A cloak room for coats and pieces of luggage will be available throughout the entire conference directly onsite.

CATERING

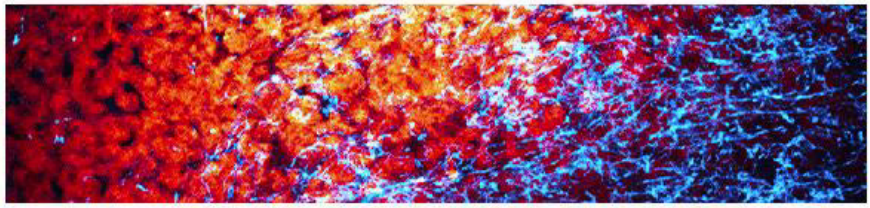
A welcome reception, coffee breaks and lunches will be provided during the conference in the Atrium.

- WELCOME RECEPTION
  Tuesday, 24 September: from 19:00 to 21:00
- COFFEE BREAKS
  Wednesday, 25 September: 10:30-11:00 / 17:00-17:30
  Thursday, 26 September: 10:00-10:30 / 16:30-17:00
  Friday, 27 September: 10:30-11:00
- LUNCHES
  Wednesday, 25 September at 13:00
  Thursday, 26 September at 12:30

GALA DINNER

The Gala dinner, available upon registration, will take place on Thursday, 26 September from 19:30 to 01:00 at the **Selcius Restaurant**, 43 Quai Rambaud, 69002 Lyon.
How to Get There:

- **By Tram:** Take Tram T1 from DEBOURG Station to HÔTEL DE RÉGION - MONTROCHET Station, then walk for 7 minutes to the restaurant.
- **On Foot:** 25-minute walk



GENERAL INFORMATION (c)

INSTRUCTIONS FOR SPEAKERS AND POSTER PRESENTERS

SPEAKER PREVIEW ROOM

Please visit the registration desk for directions.

ORAL PRESENTATIONS

All speakers of plenary, workshop or main sessions must upload their presentation in the Speakers' Preview Room at least 30 minutes before the session begins. However, they are advised do so as soon as possible (ideally the day before).

SLIDE FORMAT

PPT, Keynote, PDF, generally 16:9 display ratio

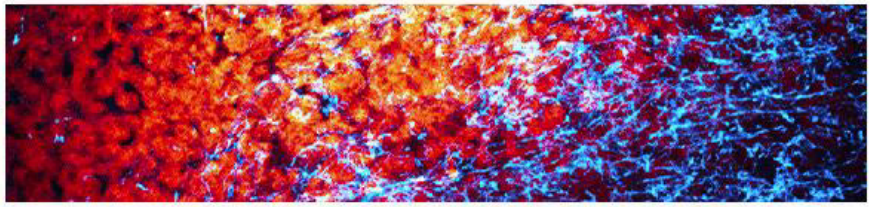
POSTER SESSIONS

The Poster display area will be held in the Atrium
The size of the poster boards is 90 cm wide x 170 cm high (portrait orientation).
Clips will be provided on the poster boards.
Presenters should stand by their poster throughout the entire sessions.

Poster Session 1: Tuesday, afternoon and Wednesday, afternoon
Poster Session 2: Thursday, morning and Thursday, afternoon

ECO-POSTER (hung up throughout the entire meeting)

Go Green! Striving for a Reduced Ecological Footprint in our Research.
Sandrine Vadon-Le Goff (LBTI, University Lyon 1, France).



SCIENTIFIC ORGANISATION

LOCAL ORGANISING COMMITTEE

Florence RUGGIERO	Ecole Normale Supérieure de Lyon, France
Laurent DUCA	Reims Champagne-Ardenne University, Reims, France
Sabrina KELLOUCHE-GAILLARD	Cergy Paris University, Cergy, France
Carine LE GOFF	Paris-Sud University, Paris, France
Laurent MULLER	Collège de France, Paris, France
Sylvie RICARD-BLUM	University Lyon 1, France
Patricia ROUSSELLE	University Lyon 1, France
Ulrich VALCOURT	University Lyon 1, France

INTERNATIONAL ORGANISING COMMITTEE

Janet BURGESS	University Medical Center Groningen, Netherlands
Julia ETICH	University of Cologne, Germany
Valerio IZZI	University of Oulu, Finland
Nikos KARAMANOS	University of Patras, Greece
Andrew PITSILLIDES	Royal Veterinary College, London, United Kingdom
James WHITEFORD	Queen Mary University of London, United Kingdom

Youth@MBE2024 ORGANISING COMMITTEE

Hisoilat BACAR	Ecole Normale Supérieure de Lyon, France
Thomas LOUSTAU	University of Strasbourg, France
Julia MARZI	Eberhard Karls University, Tuebingen, Germany
Arnaud MIEVILLE	University of Lausanne, Switzerland

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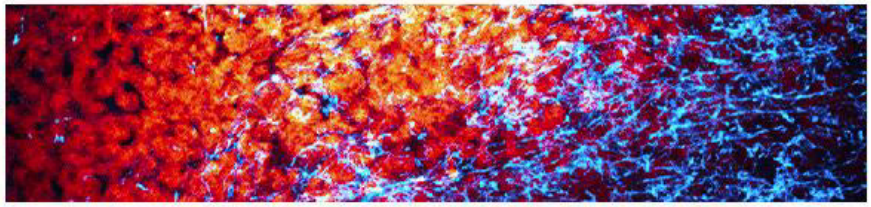
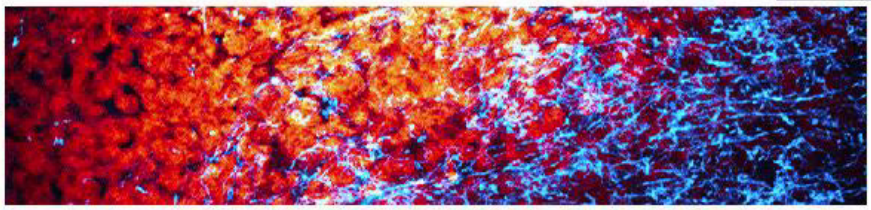


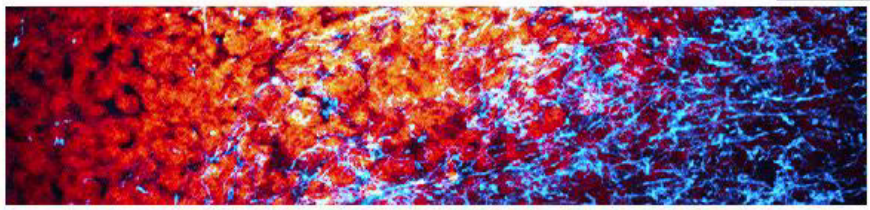
TUESDAY, 24 SEPTEMBER 2024	
TIME	**MÉRIEUX AMPHITHEATER**
13:00 – 16:00	REGISTRATION MBE2024 (Atrium)
16:00 – 16:30	**WELCOME**
16:30 – 17:15	**KEYNOTE SPEAKER**
17:15 – 19:00	**POSTER SESSION 1 (PS1)** (Atrium)
19:00 – 21:00	**WELCOME PARTY** (Atrium)

WEDNESDAY, 25 SEPTEMBER 2024		
TIME	**MÉRIEUX AMPHITHEATER**	**CONDORCET ROOM**
09:00 – 10:30	**PLENARY SESSION 1 (PL1)** ECM Biosynthesis, Dynamics & Epigenetics	
10:30 – 11:00	Break	
11:00 – 13:00	**WORKSHOP 1 (WS1)** Stem Cell Niche & Tissue Regeneration	**WORKSHOP 2 (WS2)** ECM in Inflammation & Immunity
13:00 – 15:00	LUNCH + **POSTER SESSION 1 (PS1)** (Atrium)	
15:00 – 17:00	**WORKSHOP 3 (WS3)** ECM in Development & Morphogenesis	**WORKSHOP 4 (WS4)** ECM in Tissue Repair & Tissue Engineering
17:00 – 17:30	Break	
17:30 – 18:30	**RUPERT TIMPL AWARD**	
18:30 – 19:15	**MBE GENERAL ASSEMBLY**	
19:15 – 20:00	**ISMB GENERAL ASSEMBLY**	



THURSDAY, 26 SEPTEMBER 2024		
TIME	**MÉRIEUX AMPHITHEATER**	**CONDORCET ROOM**
08:30 – 10:00	**PLENARY SESSION 2 (PL2)** ECM Targeting & Signaling in Homeostasis & Cancer	
10:00 – 10:30	Break	
10:30 – 12:30	**WORKSHOP 5 (WS5)** ECM Biomechanics & Mechanobiology	**WORKSHOP 6 (WS6)** ECM Remodeling & Fibrosis
12:30 – 15:00	LUNCH + **POSTER SESSION 2 (PS2)** (Atrium)	
15:00 – 16:30	**WORKSHOP 7 (WS7)** ECM Ageing	**WORKSHOP 8 (WS8)** ECM Breakthrough
16:30 – 17:00	Break	
17:00 – 18:30	**POSTER SESSION 2 (PS2)** (Atrium)	
19:30 – 01:00	**GALA DINER & DANCING EVENING** (Selcius Restaurant)	

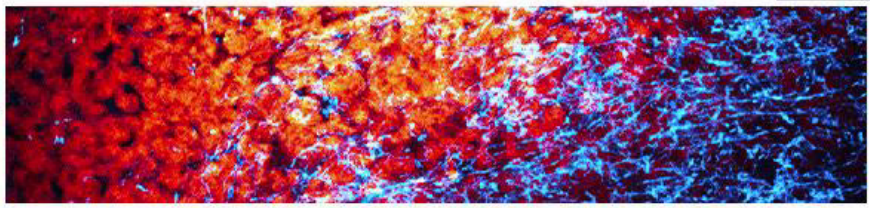
FRIDAY, 27 SEPTEMBER 2024	
TIME	**MÉRIEUX AMPHITHEATER**
08:45 – 10:30	**DICK HEINEGÅRD AWARD**
10:30 – 11:00	Break
11:00 – 12:30	**PLENARY SESSION 3 (PL3)** ECM-Related Inherited Diseases
12:30 – 13:15	**CLOSING CONFERENCE**
13:15 – 14:00	**AWARD CEREMONY & CLOSING REMARKS**



MBE2024 SATELLITE MEETINGS

TUESDAY, 24 SEPTEMBER 2024		
TIME	**LOCATION as INDICATED**	**CONDORCET ROOM**
08:00 – 13:00		**YOUTH@MBE2024**
14:00 – 15:30	**Matrix Biology Editorial Board Meeting** (**Salle de Presse**, by invitation only)	**Tendon COST Action** (open to all attendees)
14:30 – 15:30	**Meet the Sponsors** (**Atrium**, Standing Tables)	

THURSDAY, 26 SEPTEMBER 2024		
TIME	**CONDORCET ROOM**	
18:30 – 19:15	**SFBMEc GENERAL ASSEMBLY** (French Society for Extracellular Matrix Biology)	



DAY 1 – TUESDAY, 24 SEPTEMBER (AFTERNOON)

13:00 **REGISTRATION MBE2024** (Atrium, Mérieux Amphitheater)

POSTER SETUP SESSION 1

14:00-15:30 Tendon COST action
Organizer: Dimitrios Zevgolis
Condorcet Room
(open to all attendees).

14:00-15:30 Matrix Biology Editorial Board Meeting
Organizer: Joanne Murphy
Salle de Presse
(by invitation only)

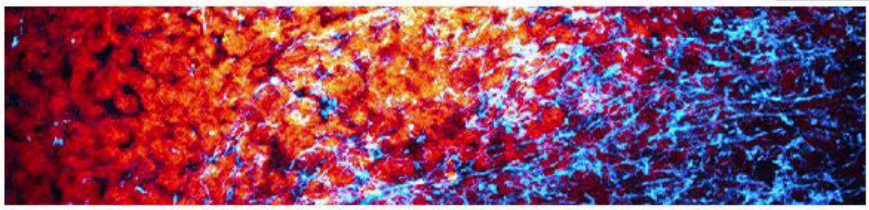
16:00 **WELCOME TALKS – OPENING CEREMONY**
Florence Ruggiero, Chair (France)
François Roudier, Vice-President of the ENS de Lyon (France)

16:30 **KEYNOTE SPEAKER (**Mérieux Amphitheater)
Chair: **Alexander Nyström** (Germany)

Basement Membrane Dynamics in Alport syndrome
Rachel Lennon (University of Manchester, United Kingdom)

17:15-19:00 **POSTER SESSION 1**

19:00-21:00 **WELCOME PARTY** (Atrium)



DAY 2 – WEDNESDAY, 25 SEPTEMBER (A)

9:00-10:30 **PLENARY SESSION 1** (Mérieux Amphitheater)

ECM Biosynthesis, Dynamics & Epigenetics

Chairs: **Renato Iozzo** (United States) and **James Whiteford** (United Kingdom)

9:00 *What's up Prolyl 4-Hydroxylase?*
Johanna Myllyharju (University of Oulu, Finland)
9:30 *(Circadian) Control of Collagen Homeostasis - New Tools and Insights*
Joan Chang (University of Manchester, United Kingdom)
10:00 *Decoding collagen's unfolding and refolding pathways with AFM imaging*
Alaa Al-Shaer (Simon Fraser University, Canada)
10:15 *Lysyl oxidase-mediated intermolecular crosslinks fine-tune collagen molecular dynamics and regulate cell-matrix interactions*
Scott Dillon (University of Cambridge, United Kingdom)

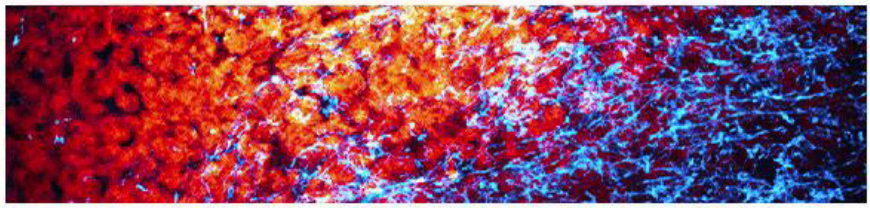
10:30-11:00 **Break** (Atrium)

11:00-13:00 **PARALLEL WORKSHOPS (WS1/WS2)**
Mérieux Amphitheater / Condorcet Room

WORKSHOP 1 Stem Cell Niche & Tissue Regeneration

Chairs: **Samuele Metti** (Switzerland) and **Sabrina Kellouche-Gaillard** (France)

11:00 *Axonal Regeneration in the Vertebrate CNS – a Matter of ECM Composition, Structure and Mechanics*
Daniel Wehner (University of Erlangen, Germany)
11:30 *Organ Dependency on Fascia Connective Tissues*
Yuval Rinkevitch (IRBM, Helmholtz Center, Munich, Germany)
12:00 *Disease in a dish: modelling skeletal dysplasias using human induced pluripotent stem cells*
Shireen Lamande (University of Melbourne, Australia)
12:15 *Extracellular matrix from regenerating and dystrophic skeletal muscle differentially impacts the behavior of stem cell populations*
Bénédicte Chazaud (Université Claude Bernard Lyon 1, France)
12:30 *Fibrillin as a modulator of quiescence in skeletal muscle stem cells*
Eleni Chrysostomou (Université Paris-Est Créteil, France)
12:45 *Megakaryocytes assemble a three-dimensional cage of extracellular matrix essential for their stability and maturation in the vascular niche*
Claire Masson (université de Strasbourg, France)



DAY 2 – WEDNESDAY, 25 SEPTEMBER (B)

WORKSHOP 2 ECM in Inflammation & Immunity

Chairs: **Liliana Schaefer** (Germany) and **Gertraud Orend** (France)

11:00 *Mechanisms of Leukocyte Migration across Cerebral Blood Vessel Basement Membranes*
Lydia Sorokin (University of Münster, Germany)
11:30 *Interferon Gamma (IFN-γ) in its ECM Context*
Thomas Kammertoens (Charité Unversitätsmedizin, Berlin, Germany)
12:00 *Mesenchymal collagen VII supports vaccination response*
Alexander Nyström (University of Freiburg, Germany)
12:15 *Live Imaging the Wound Inflammatory Response and the Consequences of Disrupted Circadian Clocks on Collagen Deposition*
Mark Naven (Bristol University, United Kingdom)
12:30 *A Disruptive Concept: targeting BIGH3 protein aims to normalize the Stroma in order to fight immune suppression and exclusion in tumor microenvironment*
Sophie Bachy (Université de Toulouse, France)
12:45 *IL-13 as a modulator of the lung hyaluronan matrix during injury and inflammation*
Rebecca Dodd (The University of Manchester, United Kingdom)

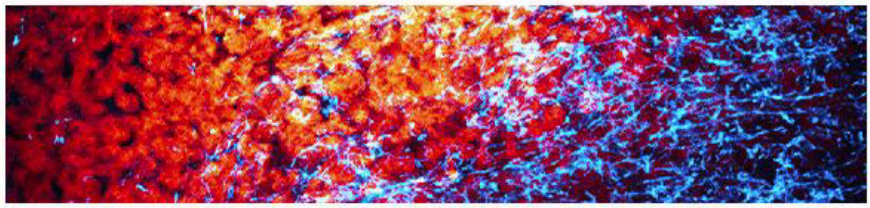
13:00-15:00 **BUFFET LUNCH** / **POSTER SESSION 1** (Atrium)

15:00-17:00 **PARALLEL WORKSHOPS (WS3/WS4)**
Mérieux Amphitheater / Condorcet Room

WORKSHOP 3 ECM in Development and Morphogenesis

Chairs: **Peleg Hasson** (Israël) and **Delphine Duprez** (France)

15:00 *Exploiting Drosophila Genetics to Elucidate Basement Membrane Developmental Dynamics*
Brian Stramer (King's College London, London, United Kingdom)
15:30 *Exploring the Mechanical and Adhesive Roles of ECM in the Developing Olfactory System in Zebrafish*
Marie Breau (Sorbonne University, Paris, France)
16:00 *Mechanical regulation of cuboidal-to-squamous transition in the Drosophila developing wing*
Stephan Harmansa (University of Exeter, United Kingdom / Aix Marseille Université, France)
16:15 *Modelling the adaptive self-organisation of muscle ECM in developmental disorders*
Omar El Oakley (King's College London, United Kingdom)
16:30 *Autonomous deposition of extracellular matrix guides tissue organization and morphogenesis in 3D gastruloids*
Marion Marchand (Mechanobiology Institute, NUS, Singapore / Aix-Marseille Université, France)
16:45 *The cryoEM Structure of mTLD reveals a potential molecular basis for dimerization and substrate exclusion*
Mark Becker (University of Manchester, United Kingdom)



DAY 2 – WEDNESDAY, 25 SEPTEMBER (C)

WORKSHOP 4 ECM in Tissue Repair & Tissue Engineering

Chairs: **Tom van Agtmael** (United Kingdom) and **Laure Gibot** (France)

15:00 *Skeletal Muscle Extracellular Matrix: Insights from a Tissue Engineering Perspective*
Lieven Thorrez (KU Leuven, Belgium)

15:30 *Functional Synergy in Elastin-like Recombinamer-Based Hydrogels to Achieve Cell Instructive Scaffolds*
José Carlos Roriguez Cabello (University of Valladolid, Spain)

16:00 *SPARC - a modulator of tendon healing?*
Renate Gehwolf (Paracelsus Medical University, Austria)

16:15 *Multiscale Mapping of Tumour Extracellular Matrix for Precision Biomaterial Design*
Jennifer Ashworth (University of Nottingham, United Kingdom / Garvan Institute of Medical Research, Australia)

16:30 *Toward combined cell and gene therapy for airway epidermolysis bullosa*
Robert Hynds (Great Ormond Street Institute of Child Health, United Kingdom)

16:45 *Human osteochondral cylinders as a model to investigate regenerative processes in osteoarthritis*
Giulio Gatto (Goethe University, Germany)

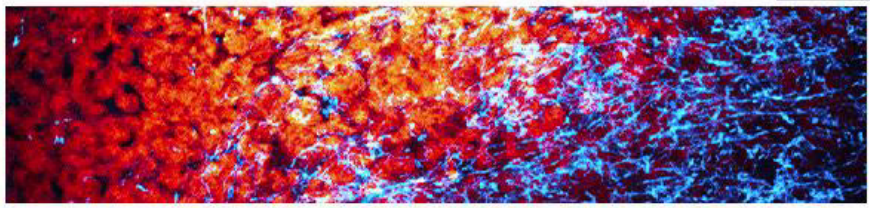
17:00-17:30 **Break** (Atrium)

17:30-18:30 **RUPERT TIMPL AWARD** Mérieux Amphitheater
CHAIR: **Nikos Karamanos,** President of the ISMB (Greece)

Translational significance of circadian clock regulation of tendon matrix homeostasis
Chloé Yeung (Institute of Sports Medicine Copenhagen, Denmark)

18:30-19:15 **MBE GENERAL ASSEMBLY (**Mérieux Amphitheater)
19:15-20:00 **ISMB GENERAL ASSEMBLY (**Mérieux Amphitheater)

POSTER TAKEDOWN SESSION 1 / POSTER SETUP SESSION 2



DAY 3 – THURSDAY, 26 SEPTEMBER (A)

8:30-10:00 **PLENARY SESSION 2** (Mérieux Amphitheater)

ECM Targeting & Signaling in Homeostasis & Cancer

Chairs: **Johanna Englund** (Finland) and **Ulrich Valcourt** (France)

8:30 *SNED1: a Novel ECM Protein at the Intersection of Cancer and Development*
Alexandra Naba (University of Illinois Chicago, United States)

9:00 *Role of the ECM in Tumor Progression and Therapy Resistance: Beyond a Physical Barrier*
Ellen van Obberghen-Schilling (University Côte d'Azur, Nice, France)

9:30 *Intracellular Cartilage Oligomeric Matrix Protein Drives Chemoresistance in Breast Cancer via Calpain Inhibition*
Papadakos Konstantinos (Lund University, Sweden)

9:45 *Apmonia Presentation*

10:00-10:30 **Break** (Atrium)

10:30-12:30 **PARALLEL WORKSHOPS (WS5/WS6)**
Mérieux Amphitheater / Condorcet Room

WORKSHOP 5 ECM Biomechanics & Mechanobiology

Chairs: **Dimitrios Zevgolis** (Ireland) and **Laurent Muller** (France)

10:30 *New Engineering Tools to Study Cell-ECM Interactions in Cardiac Morphogenesis.*
Francesco Pasqualini (University of Pavia, Italy)

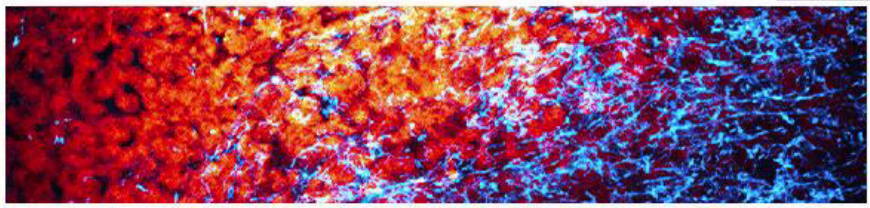
11:00 Down the Rabbit Hole of the Extracellular Matrix: from Biomechanical Understanding to Pre-clinical Application
Marco Harmsen (University Medical Center, Groningen, Netherlands)

11:30 *Piezo and TRPV mechanosensitive calcium channels cooperatively trigger ECM invasion in cerebral cavernous malformations*
Eva Faurobert (University Grenoble Alpes, France)

11:45 *Untensed Fibronectin fibers: A novel hallmark of invasive breast carcinomas*
Arnaud Mieville (ETH Zürich, Switzerland)

12:00 *Contribution of FGFR and integrin-mediated signalling to mechano-regulated gene expression in chondrocytes*
Helen F Dietmar (Heidelberg University Hospital, Germany)

12:15 *Cryo-EM structure of fibrillin1-integrin $\alpha v\beta 3$ complex provides insights into microfibril deposition and mechanosensing*
Xinyang Zhang (University of Manchester, United Kingdom)



DAY 3 – THURSDAY, 26 SEPTEMBER (B)

WORKSHOP 6 ECM remodeling and fibrosis
Chairs: **Jessica Chitty** (Australia) and **Janette K. Burgess** (Netherlands)

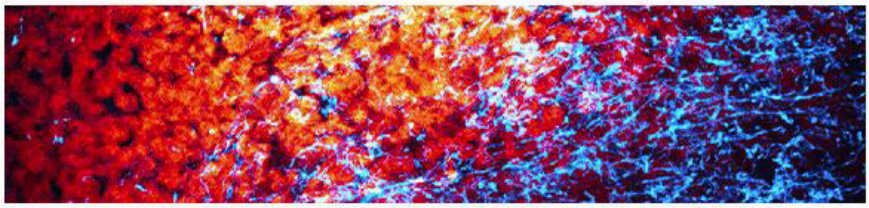
10:30 *Procollagen C-proteinase Enhancers 1 and 2: the Non-identical Twins*
Catherine Moali (University Lyon 1, France)
11:00 *Versican Expression from Pulmonary Fibroblasts Regulates Podosome Formation, ECM Invasion and Pulmonary Fibrosis*
Assilis Aidinis (BSRC Alexander Fleming, Athens, Greece)
11:30 *Exploring extracellular matrix patterns and remodelling in 2D and 3D patient-derived models of chronic liver disease in response to matrix-targeting therapeutic therapies*
Luca Urbani (King's College London, United Kingdom)
11:45 *Versican is a potential regulator of cardiac fibrosis and inflammation in heart diseases*
Athiramol Sasi (Institute for Experimental Medical Research, Norway)
12:00 *The Effect of macrophages and circadian clocks on collagen homeostasis*
Katie Lowles (University of Manchester, United Kingdom)
12:15 *Quantitation of collagen remodeling in murine cervix during pregnancy by polarization-resolved second harmonic microscopy*
Marie-Claire Schanne-Klein (Ecole Polytechnique, France)

12:30-15:00 **BUFFET LUNCH** **POSTER SESSION 2** (Atrium)

15:00-16:30 **PARALLEL WORKSHOPS (WS7/WS8)**
Mérieux Amphitheater / Condorcet Room

WORKSHOP 7 ECM Ageing
Chairs: **Frank Zaucke** (Germany) and **Laurent Duca** (France)

15:00 *Timing Requirements of Late-Life Longevity Interventions to Slow the Age-Related Decline of Mechanical Properties of Mice Collagen Tendons.*
Collin Ewald (Novartis Institutes for BioMedical Research, Basel, Switzerland)
15:30 *Increased longevity and improved aortic wall structure in mouse models of Marfan syndrome with conditional inactivation of ADAMTS6*
Timothy Mead (Case Western Reserve University, United States)
15:45 *Unveiling skin aging patterns through detection of specific extracellular matrix fragments*
Sarah Girardeau-Hubert (L'Oréal Research and Innovation, France)
16:00 *Role of vascular MFAP4 in age-induced extracellular matrix remodeling and angiotensin II-induced hypertension*
Seyda Ünsal (University of Southern Denmark, Denmark)
16:15 *Deciphering carbamoylation impact on collagen I ageing with in-silico approaches*
Zara Msoili (Université de Reims, France)



DAY 3 – THURSDAY, 26 SEPTEMBER (C)

WORKSHOP 8 ECM Breakthrough Session

Chairs: **Antonella Forlino** (Italy) and **Valerio Izzi** (Finland)

15:00 *The roles of different cell types during extracellular matrix remodeling during planarian regeneration*
Ekasit Sonpho (Stowers Institute for Medical Research, United States)

15:15 *The rhythmic matrix: using high-speed atomic force microscopy to visualise the impact of circadian rhythm on extracellular matrix secretion and organization*
George Thompson (University of Bristol, United Kingdom)

15:30 *Hotwiring integrin endocytosis acutely modulates cell interactions*
Ambroise Lambert (CY Cergy Paris University, France)

15:45 *Linking deficiency of lymphoid collagen VII and autoimmunity*
Panagiota Moraiti (University of Freiburg, Germany)

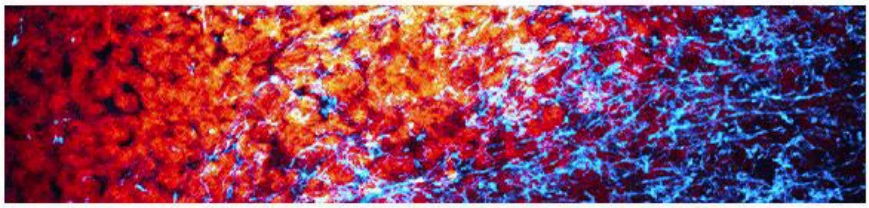
16:00 *Advanced tools for super-resolution microscopy study of laminin network formation and remodelling*
Natasha Chavda (University of Liverpool, United Kingdom)

16:15 *Regulation of fibronectin fiber assembly by post-translational modification of beta1-integrins*
Bernhard Wehrle-Haller (University of Geneva, Switzerland)

16:30-17:00 **Break** (Atrium)

17:00-18:30 **POSTER SESSION 2** (Atrium)

19:30-01:00 **GALA DINER & DANCING EVENING** / Selcius Restaurant



DAY 4 – FRIDAY, 27 SEPTEMBER (A)

8:45 -10:30 **DICK HEINEGÅRD AWARD** (Mérieux Amphitheater)
Chairs: **Sylvie Ricard-Blum** (France) and **Alberto Passi** (Italy)

Jury Members: **Peleg Hasson** (Israel) - **Renato Iozzo** (United States) - **Nikos Karamanos** (Greece) **Shireen Lamande** (Australia) - **Fransiska Malfait** (Belgium) - **Alexandra Naba** (USA)

8:45 *Multimerin-2 Expression in the Endothelium Restrains Cancer Cell Dissemination*
Evelina Poletto (National Cancer Institute CRO, Aviano, Italy)

9:00 *Extracellular Matrix Microenvironment Collaborates with Cell Mechanics to Guide Early Embryonic Cell Fate Selection*
Aki Stubb (University of Helsinki, Finland)

9:15 *Deciphering the Interplay of Extracellular Matrix Remodeling and Proteolytic Activity in Atherosclerotic Plaque Destabilization*
Lasse G. Lorentzen (University of Copenhagen, Denmark)

9:30 *The Circadian Clock Strength in Luminal A breast Tumour Influences Metastatic Potential and Predicts Patient Prognosis*
Shi-Yang Li (University of Manchester, United Kingdom)

9:45 *Dipeptidyl Peptidase-4-mediated Fibronectin Processing in Pro-fibrotic Extracellular Matrix Assemblies*
Karina A. Zeyer (University of Freiburg, Germany)

10:00 *Dual Topologies of Myotomal Collagen XV and Tenascin C Act in Concert to Guide and Shape Developing Motor Axons*
Laurie Nemoz-Billet (Ecole Normale Supérieure de Lyon, France)

10:15 *Matrix Morphology Matters: Implications for Single Cell Invasion and Lymph Node Metastasis in Early-Stage Colon Cancer*
Cor J. Ravensbergen (Leide University Medical Center, Netherlands)

10:30-11:00 **Break** (Atrium)

11:00-12:30 **PLENARY SESSION 3** (Mérieux Amphitheater)

ECM-related Inherited Diseases

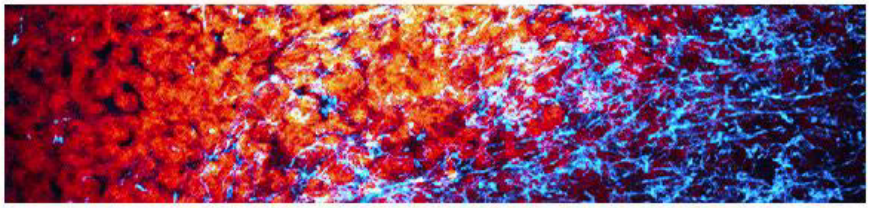
Chairs: **Julia Etich** (Germany) and **Shireen Lamandé** (Australia)

11:00 *Cutis Laxa as a Paradigm to Understand of Tissue-Specific ECM Assembly*
Bert Callewaert (University of Ghent, Belgium)

11:30 *Collagen VI, a Key Regulator of Muscle Homeostasis.*
Paolo Bonaldo (University of Padova, Italy)

12:00 *Zebrafish models of dominant and recessive Osteogenesis Imperfecta differently respond to a new chemical chaperone with sexual dimorphism*
Nadia Garibaldi (University of Pavia, Italy / The City College of New York, United States)

12:15 *Inactivation of the Collagen modifying enzymes Collagen Prolyl 4-hydroxylase I or II in the pancreatic cancer cells decreases their growth in vivo.*
Sotiria Tsiflidou (University of Oulu, Finland)



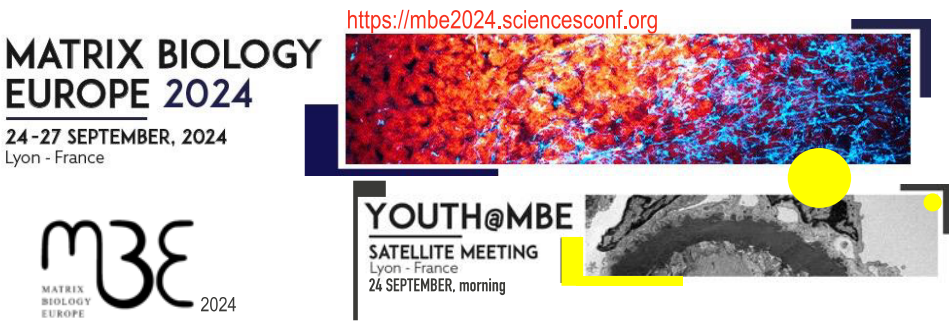
DAY 4 – FRIDAY, 27 SEPTEMBER (B)

12:30-13:15 **CLOSING CONFERENCE** (Mérieux Amphitheater)
Chair: **Patricia Rousselle** (France)

Mechanisms of Mechanosensing by Integrin Adhesion Complexes
Martin Humphries (University of Manchester, United Kingdom)

13:15-14:00 **AWARD CEREMONY and CLOSING REMARKS**
Florence Ruggiero, Chair (France)
The representative of the MBE2026 host country (tba)

14:00 **END OF THE MBE2024 MEETING**



MBE 2024 SATELLITE MEETING

YOUTH@MBE2024 (For registered attendees only)

TUESDAY, 24 SEPTEMBER (MORNING)

Condorcet Room

8:00-9:00 **REGISTRATION**
(Atrium, Mérieux Amphitheater)

9:00-10:30 **SHORT TALKS** (selected from abstracts)
Condorcet Room
Chairs: **Wendy Perez-Franco** (Italy) and **Giulo Gatton** (Germany)

9:00 *A first in class pan-lysyl oxidase inhibitor in combination with chemotherapy significantly improves response to therapy and decreases metastasis in pancreatic cancer*
Jessica Chitty (Garvan Institute of medical research, Australia)
9:15 *Exploring the TSP-1:CD47 mechanism of Interaction by molecular dynamics simulations*
Mariem Ghoula (Apmonia Therapeutics, France)
9:30 *Potential implication of Granzyme B in keloid and hypertrophic scars through the cleavage of LTBP-1*
Alexandre Aubert (University of British Columbia, Canada)
9:45 *Self-assembled peptide hydrogels promote epidermal regeneration and epithelialisation of wounds through an extracellular matrix-dependent mechanism*
Chloé Laigle (University of Lyon, France)
10:00 *The Interaction Between Extracellular Matrix Organization and Inflammation During Tissue Remodelling*
Hannah Brouwer (Eindhoven University of Technology, Netherlands)
10:15 *Zebrafish as an innovative in vivo model to investigate extracellular matrix dynamics of skin repair*
Hisoilat Bacar (Ecole Normale Supérieure de Lyon, France)

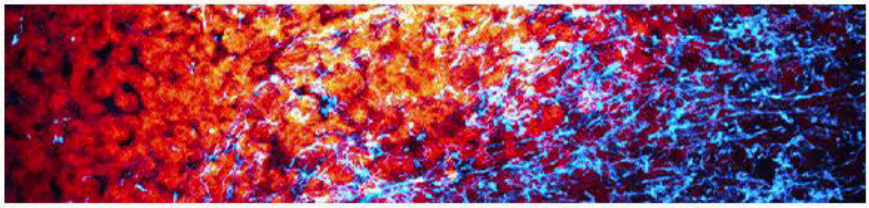
10:30-11:40 **POSTER SESSION / BREAK** (Atrium)

11:40-12:50 **INVITED SPEAKERS**
Condorcet Room
Chairs: **Shivashakthi Shivaraman** (France) and **Omar Merhi El Hassan** (United Kingdom)

11:40 *The academic path of an ECM researcher*
Julie di Martino (Touro University, New-York, USA)
12:20 *From Idea to Reality: Starting your own start-up*
Ana Hennino (Cancer Research Center of Lyon, France)

12:50-13:00 **CLOSING REMARKS**
Condorcet Room

13:00-14:30 LUNCH BOX



MBE2024 SATELLITE MEETING

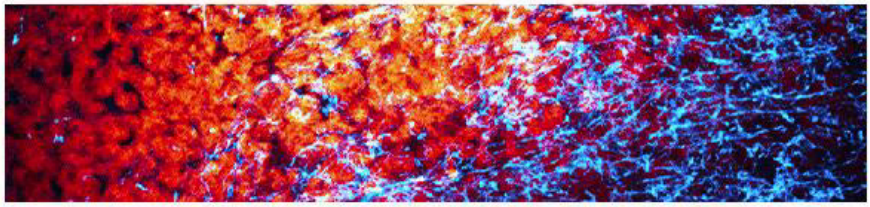
TENDON COST ACTION (Open to all attendees)

TUESDAY, 24 SEPTEMBER (AFTERNOON)

Condorcet Room

14:00-15:30 **TENDON COST ACTION** (open to all attendees)
Chair: **Dimitrios Zevgolis** (Ireland)

14:00 *Closing the loop between mechanical stimulus and matrix remodeling in tendon*
Jess G. Snedeker (Switzerland)
14:15 *Exploiting epithelial-mesenchymal-tendon transition of amniotic epithelial stem to enhance tendon regeneration*
Barbara Barboni (Italy)
14:30 *Bioengineered living fibers as 3D models of tendon health and disease*
Manuel Gómez-Florit (Spain)
14:45 *Neurogenic modulatory role of amniotic epithelial cells in tendon regeneration*
Valentina Russo (Italy)
15:00 *From cells to tissue in one week: macromolecular crowding as a tool to quickly generate tissue engineered tendon substitutes*
Andrea Rossoni (Ireland)
15:15 *Bioprinting of 3D tendon constructs using decellularized extracellular matrix as bioinks*
Vittoria Guerra Altheman (Portugal)



POSTER SESSION 1 (Atrium)

PL1 - ECM Biosynthesis, Dynamics and Epigenetics

001 Biochemical characterization of a novel disease-causing collagen prolyl 4-hydroxylase I variant.
Sofia Sova (University of Oulu, Finland).

002 The long form of collagen XVIII binds to the plasma membrane via the frizzled domain.
Ueno Tomonori (Nippi Research Institute of Biomatrix, Ibaraki, Japan).

003 An extracellular complex between Punctin/MADD-4 and Collagen XVIII/CLE-1 controls synapse identity in C. elegans.
Mélissa Cizeron (MeLis, University Lyon 1, France).

004 Impact of type I collagen carbamylation on the phenotypic modulation of vascular smooth muscle cells.
Lucile Cadoret (University of Reims Champagne-Ardenne, Reims, France).

005 Insight into the mechanism of action of PCPE-2, the endogenous inhibitor of human BMP-1/tolloid-like proteinases.
Julien Bauer (LBTI, University Lyon 1, France).

006 Studying the dynamics of extracellular matrix proteins.
Anaïs Dumas (MeLiS, University Lyon 1, France).

007 Endocytosed collagen-I trafficking may involve retrograde Golgi to ER transport in human lung fibroblasts.
John Knox (University of Manchester, UK)

008 The function of collagen prolyl 4-hydroxylase III and the role of prolyl 4-hydroxylation in the quality control of collagen secretion.
Emma Karjalainen (University of Oulu, Finland).

009 Viral-mediated fluorescent labelling of hyaluronan reveals extracellular matrix dynamics in live brain tissue.
Mario Fernandez Ballester (Achucarro Basque Center for Neuroscience, Leioa, Spain).

010 The interaction network of the small- leucine-rich proteoglycans.
Romain Rivet (University of Reims Champagne-Ardenne, Reims, France).

011 Chronic exposure to pollutants photoactivated by UVA1 generates a specific alteration of collagen meshwork, distinct that those produced by each stresses applied separately.
Valérie Haydont (L'Oréal Research and Innovation, Aulnay-sous-Bois, France).

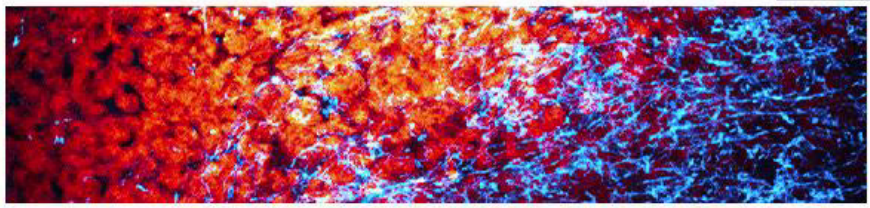
012 Collagen VI microfibril structure reveals mechanism for collagen chain selection and clustering of inherited pathogenic mutations.
Clair Baldock (University of Manchester, United Kingdom).

013 Engineering Mini Collagens for Advanced Structural Analysis.
Mukti Singh (University of Manchester, United Kingdom).

014 Effect of Elastin-Derived Peptides on Tendon Cell Behaviour and Collagen Production.
Shan Lu (University College London, United Kingdom).

015 Suprastructural organisation of collagen VI microfibrils in articular cartilage and their role as mediator of cell-matrix interactions.
Uwe Hansen (Muenster University Hospital, Germany).

016 Unravelling a new ECM stiffening function of the axon guidance molecule netrin-1.
Gaëtan Thivolle Lioux (Cancer Research Centre of Lyon, University Lyon 1, France).



017 The tyrosine phosphatases LAR and PTPRD act as receptors of the nidogen-tetanus toxin complex.
Sunaina Surana (University College London, United Kingdom).

018 Pro148Leu KIF22 mutation affects cartilage morphology, cell orientation and extracellular matrix deposition in a mouse model of SEMDJL2.
Roufaida Bouchenafa (Newcastle University, United Kingdom).

019 Developing solid-state NMR spectroscopy approaches to study extracellular matrices.
Ananya Singh (University of Warwick, United Kingdom).

020 Exploring the TSP-1:CD47 mechanism of interaction by molecular dynamics simulations.
Mariem Ghoula (Apmonia Therapeutics, Reims, France).

WS1 - Stem Cell Niche and Tissue Regeneration

021 hTERT immortalization of mesenchymal stromal cells does not affect the functional properties of secreted extracellular vesicles.
Alessia Brancolini (Evercyte GmbH, Vienna, Austria).

022 Role of collagen XV-B in motor nerve regeneration in zebrafish larvae.
Sandrine Bretaud (IGFL, ENS de Lyon, University Lyon 1, France).

023 The Role of Notch signaling pathway in Fibro-adipogenic progenitors (FAPs) and the consequence on Extracellular matrix proteins.
Oussama Smail (University of Paris-Est Créteil, France).

024 Extracellular vesicles derived from collagen VI mutated myogenic cell lines display potential proinflammatory properties.
Michal Tamáš (University of Padova, Italy).

025 Hydrogel derived from human endometrium decellularized matrix improved the function of endometrial mesenchymal stem cells in tissue regeneration.
Jingwen Xu (University of Hong Kong, SAR China).

026 The matrisome as a driver of acute myeloid leukemia.
Annalena Dittmann (University of Oulu, Finland).

027 Coordinated regulation of intestinal homeostasis and injury repair by CCN1-matricellular signaling.
Joon-Il Jun (University of Illinois at Chicago, United States)

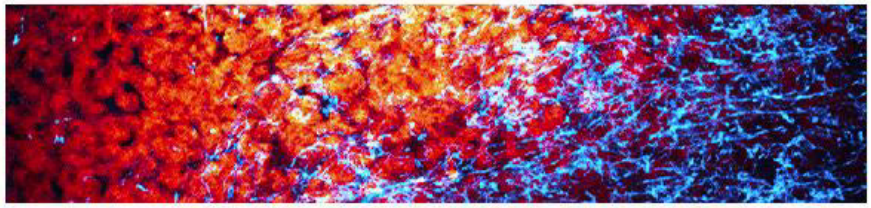
028 Zebrafish as an innovative in vivo model to investigate extracellular matrix dynamics of skin repair.
Hisoilat Bacar (IGFL, ENS de Lyon, University Lyon 1, France).

WS2 - ECM in Inflammation and Immunity

029 A novel serological biomarker targeting a collagen type-I-derived matricryptin predicts all-cause mortality at admission with ST-elevated myocardial infarction.
Emily Martin (Nordic Bioscience, Herlev, Denmark).

030 The Role of Cancer-Associated Fibroblasts in Modulating the Matrix and Immune Cell Landscape in Oral Squamous Cell Carcinoma.
Imane El Herch (Cancer Research Centre of Lyon, University Lyon 1, France).

031 The role of viscoelastic properties of the subventricular zone on progression of experimental encephalomyelitis.
Rafaela Silva (Charité Universitätsmedizin Berlin, Germany).



032 Oncofetal-chondroitin sulfate as a regulator of cancer immunosurveillance.
Anne Martin-Salazar (University of Copenhagen, Denmark).

033 Cochlin LCCL domain promotes anti-bacterial immune response through activation of the cMET and EGFR in epidermal keratinocytes.
Xinyi Bao (University of Freiburg, Germany).

034 Creating order out of chaos - Modelling the influence of chronic inflammation on restoring cardiac structural anisotropy.
Marjolein Ten Dam (Technical University Eindhoven, Netherlands).

035 Hypoxia drives the synthesis of a pro-atherogenic versican-rich extracellular matrix that may be attenuated by heparin.
Christine Chuang (University of Copenhagen, Denmark).

036 Irreversible ECM reprogramming causes intestinal stem cells to perpetuate inflammation during colon regeneration.
Idan Adir (The Weizmann Institute of Science, Rehovot, Israel).

037 Rheumatoid Arthritis: Does Granzyme B make the cut?
Alexandre Aubert (University of British Columbia, Vancouver, Canada).

038 Tenascin-C orchestrates an immuno-suppressive tumor microenvironment in oral cavity cancer impacting radiotherapy.
Thomas Loustau (IUT Louis Pasteur, University of Strasbourg, France).

039 The Interaction Between Extracellular Matrix Organization and Inflammation During Tissue Remodelling.
Hannah Brouwer (Eindhoven University of Technology, Netherlands).

040 Laminin N terminus α31 modulates Akt signaling and changes breast cancer invasive behaviour
Fawziah Asiri (University of Liverpool, United Kingdom)

WS3 - ECM in Development and Morphogenesis

041 Using solid-state nuclear magnetic resonance spectroscopy to probe ECM changes in disease and development.
Ying Wing Chow (University of Warwick, United Kingdom).

042 Human recombinant full-length laminin-111 forms gel under physiological conditions.
Kazunori Mizuno (Nippi Inc., Tokyo, Japan).

043 Laminin γ1 chain is essential for heart and lung development.
Kinga Gawlik (Lund University, Sweden).

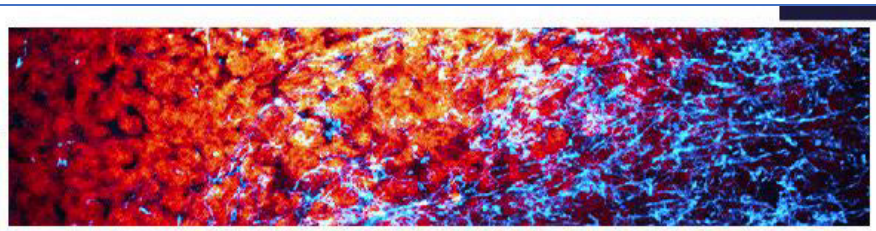
044 Lama3 is a novel regulator of gut homeostasis.
Neta Felsenthal (Curie Institute, Paris France).

045 Matrix first, minerals later: fine-tuned dietary phosphate increases bone formation in zebrafish.
Silvia Cotti (Ghent University, Belgium).

046 Multiomics analysis identifies scleraxis as a negative regulator of neurogenesis in tendons.
Asma Mechakra (ETH Zurich, Switzerland).

047-1 About the interplay between the cell surface hyaluronidase TMEM2, hyaluronic acid and the primary cilium.
Séverine Bär (GMGM, Strasbourg University, France)

047-2 Understanding the dynamics of the extracellular matrix in the developing human brain
Catalina Moreno (King's College London, London, UK)



WS4 - ECM in Tissue Repair & Tissue Engineering

048 An in vitro model to investigate the influence of mechanical loading on the mammalian tenocyte circadian rhythm.
Ask Møbjerg (Institute of Sports Medicine Copenhagen, Denmark).

049 Ability of hiPSC-derived fibroblasts to produce and organize an extracellular matrix.
Lucile Guillot (LBTI, University Lyon 1, France).

050 Engineering a Bio-functional fibronectin-like fragment for biomaterials functionalization.
Amina Ben Abla (EBI, Cergy, France).

051 Formulation of a new composite biomaterial for bone tissue engineering.
Hamza Danguir (University Lyon 1, Faculté des sciences, France).

052 Hydrogels incorporating Graphene Oxide modulate intra-articular Hyaluronic acid delivery: advanced treatment for Knee Osteoarthritis.
Francesca Sciandra (SCITEC-CNR, Milan, Italy).

053 Investigation of fibrin hydrogel proteolysis by dental pulp mesenchymal stem cells.
Mourad Bekhouche (LBTI, University Lyon 1, France).

054 Marine Polysaccharides for Vascular Tissue Engineering Applications.
Marilena Formato (University of Sassari, Italy).

055 Seaweed Carrageenan Enhances Matrix Deposition and Affects Genes and Protein Expression in hBMMSC.
Giulia Giuffredi (University College Dublin, Ireland).

056 Lab-grown, 3D Extracellular Matrix Particles Reduce Scar Size and Alter Proteome in Myocardial Ischemia.
Max Petersen (XM Therapeutics, Inc., Providence, RI, United States).

057 Exploring elastogenesis through gene expression and crosslinking mechanisms in in vitro system.
Sofia Silva Salazar (Fraunhofer IMWS, Halle, Germany).

058 Modelling the cellular and basement membrane constituents of the blood-brain barrier.
Yi Ling Tsang (Muenster University Hospital, Germany).

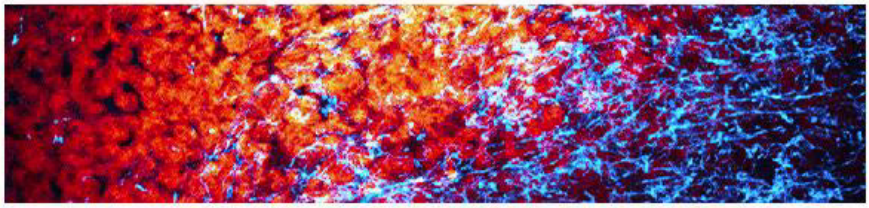
059 A clinical-grade partially decellularized trachea: validation in-vitro and in-vivo in a porcine model.
Lousineh Arakelian (Hôpital Saint Louis, AP-HP, Paris, France).

060 Development of human corneal stromal assemblies using macromolecular crowding.
Dimitrios Zevgolis (University College Dublin, Ireland).

061 Mycolactone causes Sec61-dependent loss of the endothelial glycocalyx and vessel basement membrane: a new indirect mechanism driving tissue necrosis in Mycobacterium ulcerans infection.
Louise Tzung-Harn Hsieh (National Health Research Institutes, Taiwan).

062 Role of PCPE2 (procollagen C-proteinase enhancer 2) in skin homeostasis and wound healing.
Manon Napoli (LBTI, University Lyon 1, France).

063 Spatial landscape of the joint extracellular matrix.
Julia Etich (University of Cologne, Germany).



064 Toward Enhanced Regenerative Therapies: Protein-Engineered Hydrogels for Degenerative Joint Diseases.
Desiré Venegas Bustos (University of Valladolid, Spain).

065 Development and application of an ECM-based organoid-like model to study the window of implantation.
Konstantina Kyriakopoulou (Muenster University Hospital, Germany).

066-1 Self-assembled peptide hydrogels promote epidermal regeneration and epithelialisation of wounds through an extracellular matrix-dependent mechanism.
Chloé Laigle (LBTI, University Lyon 1, France).

066-2 Biomaterial functionalization with triple-helical peptides for cartilage tissue engineering.
Audrey Ziverec (LBTI, University Lyon 1, France).

WS5 - ECM Biomechanics and Mechanobiology

067 Integrin alpha10 is involved in the response of chondrocytes to dynamic compression.
Frédéric Mallein-Gerin (LBTI, University of Lyon 1, Lyon, France).

068 Investigating bone extracellular matrix under mechanical strain.
Kathryn Gerl (University of Cambridge, United Kingdom).

069 Multi-omics profiling of skin matrix remodeling induced by sub-lethal photodynamic therapy.
Cindy Dieryckx (LBTI, University of Lyon 1, Lyon, France).

070 Role of scaffolds macroarchitectures on intra and extracellular biomechanics and osteogenesis of hMSCs: application to bioinstructive materials for large bone defects regeneration.
Alexis Romero (University Jean Monnet, Saint-Etienne, France).

071 Differential microenvironment mechanosensitivity of DPIG is regulated by BMP7 secretion.
Lilia Midjek (Gustave Roussy Institute, Villejuif, France).

072 Fine-tuning of collagen VI turnover by ANTXR2 is critical for skeletal muscle function.
Samuele Metti (EPFL, Lausanne, Switzerland).

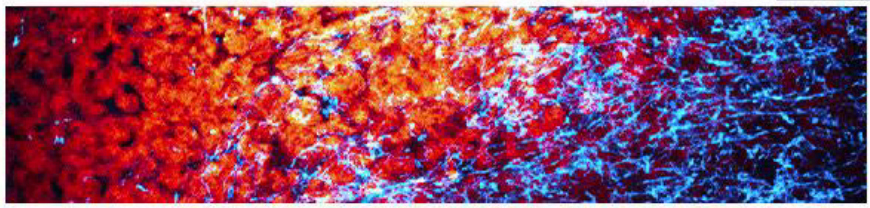
073 Single nucleus resolution of the human hamstring tendon response to acute heavy resistance exercise.
Danielle Steffen (Copenhagen University Hospital, Denmark).

074 Towards an ex-vivo cartilage damage model to study cartilage damage progression and repair.
João Pinheiro (LifeTec, Eindhoven, Netherlands).

075 Large area automated structural and mechanical analysis of biomaterials, cells and tissues by AFM.
Joan-Carles Escolano (JPK BioAFM, Bruker Nano GmbH, Berlin, Germany).

076 Soft extracellular matrix drives an endoplasmic reticulum stress-dependent S quiescence underlying molecular traits of pulmonary basal cells.
Cédric Chaveroux (LBTI, University of Lyon 1, France).

077 Stiffening of suspended fibrous micro-tissues by active forces and compressive deformation.
Jonathan Fouchard (Sorbonne University, Paris, France)



POSTER SESSION 2 (Atrium)

PL2 - ECM Targeting and Signaling in Homeostasis and Cancer

078 MatriTOOLS: Targeted Tools for Deconvoluting the Matrisome in Health and Cancer.
Rijuta Lamba (University of Oulu, Finland).

079 Studying the Effect of ECM Stiffening on Brain Cancer in vivo Using Zebrafish.
Karina Koepke (University Medical Center Groningen, Netherlands).

080 Targeting the MAtrix REgulating MOtif, MAREMO, abolishes several hallmarks of cancer triggering anti-tumor immunity.
Alexia Pavlidaki (University of Strasbourg, France).

081 Targeting the matrix with MAREMO peptides to cause tumor remission.
Ioanna Mitrentsi (Universtiy of Strasbourg, France).

082 Targeting the TSP-1:CD47 interaction in cancer: a non-clinical safety pharmacology study of TAX2 peptide.
Marion Etiennot (Apmonia Therapeutics, Reims, France).

083 The impact of EGFR and IGFR pathways inhibition on extracellular matrix modulation in mammary cancer.
Spyros Kremmydas (University of Patras, Greece).

084 The protease ADAMTS5 controls ovarian cancer cell invasion, downstream of Rab25.
Rachele Bacchetti (University of Sheffield, United Kingdom).

085 The WISP-1/MIF axis promotes the aggressiveness of breast cancer cells.
Stylianos Astaras (University of Patras, Greece).

086 Three dimensional ERbeta-positive breast cancer spheroids: functional properties and differential expression of key matrix components.
Nikolaos Koletsis (University of Patras, Greece).

087 The substrate repertoire of procollagen prolyl-4-hydroxylase isoenzymes and its contribution to coordinating tissue-specific extracellular matrix assembly.
Jean-Baptiste Vincourt (University of Lorraine, Nancy, France).

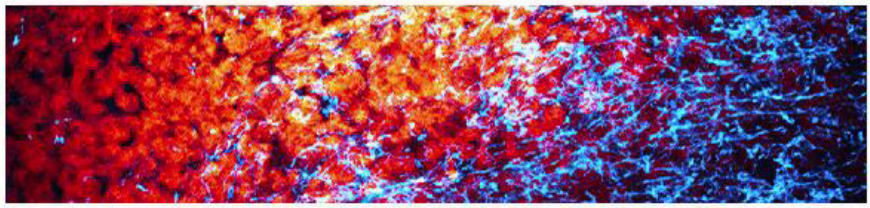
088 Comparative Analysis of Core-Matrisome Profiles in Healthy and COPD Lungs.
Natalia El-Merhie (Institute for Lung Health, Justus Liebig University, Giessen, Germany).

089 Consequences of inactivating the fibronectin synergy site in mammary gland malignant tumors.
Gemma Guerrero Barberà (University of Valencia, Spain).

090 Deciphering the post-radiotherapy matrisome dynamics to understand and target glioblastoma recurrence.
Dimitra Manou (Lund University, Sweden).

091 Design and functional properties of 3D and comparison with 2D cell culture models in breast cancer cells.
Sylvia Mangani (University of Patras, Greece)

092 Dysregulation of intercellular communication in vitro and in vivo via extracellular vesicles secreted by pancreatic duct adenocarcinoma cells and generated under the influence of the AG9 elastin peptide-conditioned microenvironment.
Bertrand Brassart (MEDyC, University of Reims-Champagne-Ardennes, Reims, France).



093 Evaluation of the EGFR and IGFR cross-talk in the expression of matrix components and cell properties in triple-negative breast cancer cells.
Chrisavgi Gourdoupi (University of Patras, Greece).

094 Gremlin Proteins as Novel Mediators in Tendon Inflammation.
Renate Gehwolf (Paracelsus Medical University, Salzburg, Austria).

095 Inhibition of tumour formation by overexpressing LaNt a31.
Bilge Sari (University of Liverpool, United Kingdom).

096 LaNt α31 Causes Leaky Blood Vessels.
Aeshah Hassan (University of Liverpool, United Kingdom).

097 LRP-1 a key modulator of TBNC progression.
Maxence Mocquery-Corre (MEDyC, University of Reims-Champagne-Ardennes, Reims, France).

098 MCL-1 expression in breast cancer-associated fibroblasts modulates their extracellular matrix properties enhancing luminal breast cancer cells chemoresistance.
Chloé Lefebvre (Nantes University, France).

099 Novel 3D culture substrate for organoids containing collagen, laminin-E8, and hyaluronan.
Alex Sim (AMSBIO Europe BV, Abingdon, United Kingdom).

100 Role of Discoidin Domain Receptor 1 (DDR1) in cell migration and invasion in colorectal cancer.
Mathilde Roumieux (MEDyC, University of Reims-Champagne-Ardennes, Reims, France).

101 Study of the EGFR and JAK/STAT signaling pathways in the expression of glypicans in cancer cell lines.
Paraskevi Ioannou (University of Patras, Greece).

102 Architectural organization of the basement membrane and permeability to cell infiltration.
Frédéric Luton (University Côte d'Azur, Valbonne, France).

103 Dynamic dysregulation of Tenascin-X in favour of its pro-tumoral counterpart, tenascin-C leads to tumoral cell proliferation during pancreatic carcinogenesis.
Céline Schmitter (LBTI, University Lyon 1, France).

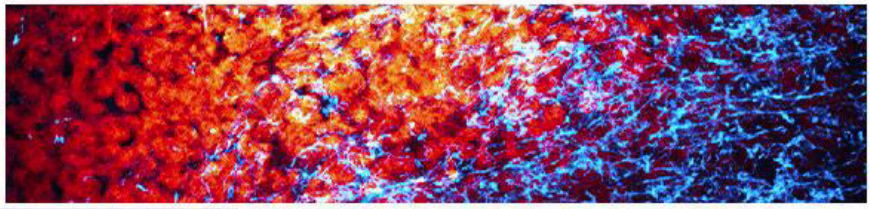
104 Stiffness-induced cancer-associated fibroblasts are responsible for immunosuppression in a PDGF ligand-dependent manner.
Mélissa Masmoudi (Cancer Research Centre of Lyon, University Lyon 1, France).

105 The roles of collagen synthesis enzymes in tumorigenesis and metastasis, with focus on tumor stroma and pancreatic cancer as a model.
Linda Birgisdóttir (University of Oulu, Finland).

106 ADAM12 may be involved in poor prognosis of colorectal cancer patients via poorly differentiated cluster formation.
Satsuki Mochizuki (National Defense Medical College, Saitama, Japan).

107 Added value of the extracellular matrix in cancer: how to target the matrisome for therapy.
Laurent Fattet (Centre de Recherche en Cancérologie de Lyon, France).

108 Allosteric Anti-KLK4 Antibody Development for Targeted Anti-Cancer Effects in Ovarian Carcinoma.
Nikolaos Afratis (Weizmann Institute of Science, Rehovot, Israel).



109 Development of a Peptide Targeting Tumor Angiogenesis and Progression in Colorectal Cancer.
Vivien Paturel (University of Reims Champagne-Ardenne, UMR 7369, France)

110 Targeting collagen XVIII improves the efficacy of ErbB inhibitors in breast cancer models
Ritva Heljasvaara (University of Oulu, Finland).

111 Tracking metabolic changes for targeting malignant peripheral nerve sheath tumors.
Martina La Spina (University of Padua, Italy).

112 Tumour-derived Laminin α5 is essential for luminal breast cancer initiation.
Johanna Englund (Institute of Biotechnology, Helsinki, Finland)

113 Sulfated hyaluronan's anticancer effect on breast cancer: insights from 3D culture models and in vivo studies
Nikos Karamanos (University of Patras, Greece)

114 Potential implication of Granzyme B in Keloid and Hypertrophic Scars through the cleavage of LTBP-1.
Alexandre Aubert (University of British Columbia, Vancouver, Canada).

115 A first in class pan-lysyl oxidase inhibitor in combination with chemotherapy significantly improves response to therapy and decreases metastasis in pancreatic cancer.
Jessica Chitty (Garvan Institute of Medical Research, Darlinghurst, Australia).

WS6 - ECM Remodeling and Fibrosis

116 Ascorbic acid and hypoxia promote fibrogenesis via distinct mechanisms.
Méline Ricol (LBTI, University Lyon 1, Lyon, France).

117 The Crucial Role of Tolloid Proteinases in Bone Biology: Alterations of Collagen Fibril Morphology and Osteoblast Mineralization.
Daniel Kronenberg (University of Muenster, Germany).

118 Type III collagen remodeling biomarkers are a potential tool to differentiate between idiopathic pulmonary fibrosis and hypersensitivity pneumonitis.
Georgia Christoforidou (Nordic Bioscience, Herlev, Denmark).

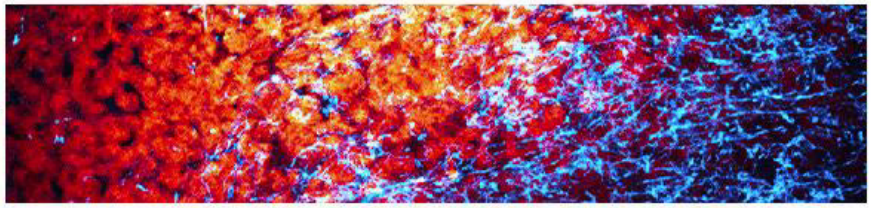
119 WISP1 as a Modulator of Inflammation and Oxidative Stress in COPD Airway Smooth Muscle Cells.
Maria Elpida Christopoulou (University of Freiburg, Germany).

120 Anti-fibrotic potential of a C-terminal-domain modulator of TRAP1 encapsulated in hyaluronic acid-decorated liposomes.
Marie Vaudelle (Paris-Saclay University, Orsay, France).

121 Characterization of Cancer Associated Fibroblasts from mammary gland tumors expressing fibronectin with the synergy site inactivated.
Natalia Burday (University of Valencia, Spain).

122 Degradation of the alveolar basement membrane type IV collagen alpha-3 chain is associated with pulmonary hypertension, mortality, and antifibrotic treatment in idiopathic pulmonary fibrosis.
Annika Hummersgaard Hansen (Nordic Bioscience, Herlev, Denmark).

123 Evaluating Cancer-Associated Fibroblasts Activity and Collagen Expression Profiles Using Clinically Validated Biomarkers.
Annika Hettich (Nordic Bioscience, Herslev, Denmark).



124 Functional characterisation of the cardiovascular protease ADAMTS8.
Tina Burkhard (University of Surrey, United Kingdom).

125 Human skeletal muscle fibrosis in different myopathies: study of the extracellular matrix composition and role of Fibro-adipogenic progenitors.
Laura Muraine (Myology Institute, Paris, France).

126 Investigating Collagen Maturation Biochemistry Through Recombinant Mini Procollagens.
Oskar Lipiński (LBTI, University Lyon 1, France).

127 Proteomics Analysis of skeletal muscle Extracellular Matrix in dystrophic mice.
Antonio Moretta (INMG, University Lyon 1, France).

128 Osteoprotegerin and fibulin-1 form a regulatory complex in lung fibrosis.
Yanzhe Liu (University of Groningen, Netherlands).

129 Dipeptidyl peptidase-4-mediated fibronectin processing in pro-fibrotic extracellular matrix assemblies.
Karina Zeyer (University of Freiburg, Germany).

130 Label-free monitoring of fibrotic tissue remodeling and cellular infiltration.
Julia Marzi (Eberhard Karls University Tuebingen, Germany).

131 N-Terminal proteomics reveals distinct patterns of extracellular matrix degradation and protein fragmentation in different types of human atherosclerotic plaques.
Michael Davies (University of Copenhagen, Denmark).

132 Selective inhibition of elastolytic activity of cathepsin S by marine exopolysaccharides.
Fabien Lecaille (University of Tours, France).

133 Uncoupling hypertension from cardiac remodeling.
Peleg Hasson (The Rappaport Faculty of Medicine, Technion, Haifa, Israel).

134 Targeted LOX inhibition to fibrotic macrophages enhances muscle function in Duchenne Muscular Dystrophy
Anas Odeh (The Rappaport Faculty of Medicine, Technion, Haifa Israel)

WS7 - ECM Ageing

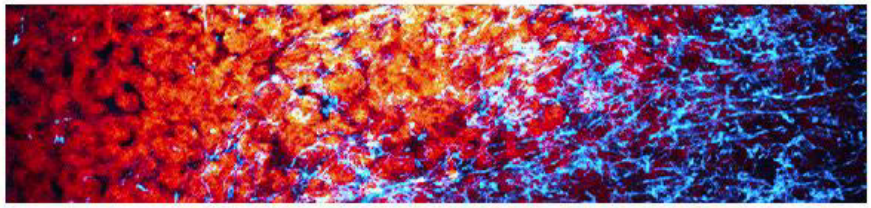
135 Aging affects bone and intervertebral disc in FGFR3-related mouse model.
Chantal Fayad (Imagine Institute, Paris, France).

136 Functional and structural characterization of Glycosaminoglycans from Platelet Rich Plasma for application in Osteoarthritis.
Chayma Saadan (University of Paris-Est Créteil, Créteil, France).

137 Structure/Function characterization of matrix heparan sulfate and associated proteoglycans in senescent synoviocytes during Osteoarthritis.
Amina Boukhobza (University of Paris-Est Créteil, Créteil, France).

138 Contribution of norepinephrine and the ageing sympathetic nervous system to spine regeneration.
Matteo Signor (University Hospital Frankfurt, Goethe University, Frankfurt am Main, Germany).

139 Insights in the adult skeletal phenotype of an animal model of diastrophic dysplasia.
Asifa Khan (University of Pavia, Italy).



140 Investigating the therapeutical role of Primary Cilia in Connective Tissue Diseases.
Gianluca Ricci (Medetia Pharmaceuticals, Paris, France).

141 Unrevealing the multi-organ consequence of osteogenesis imperfecta in aging.
Wendy Pérez Franco (University of Pavia, Italy).

142 Unveiling early aging in collagen VI Bethlem myopathy using a zebrafish.
Shivashakthi Shivaraman (IGFL, ENS de Lyon, University Lyon 1, France).

143 Identification of C5aR as a new interaction partner of membrane sialidase NEU1: potential implication of the elastin receptor complex in the regulation of the complement system.
Pascal Maurice (MEDyC, University of Reims Champagne-Ardenne, Reims, France).

144 Modulation of platelet interaction with collagen by carbamylation, a non-enzymatic post-translational modification occurring during pathophysiological vascular aging.
Pascal Maurice (MEDyC, University of Reims Champagne-Ardenne, Reims, France).

145 The consequences of senescent fibroblasts' immunoevasion in skin aging.
Laurie Verzeaux (R&D Department, SILAB, Brive, France).

146 Investigating the interaction between senescence and collagen IV in age-dependent vascular disease.
Omar Merhi El Hassan El Abdallah (University of Glasgow, United Kingdom).

PL3 - ECM-related Inherited Diseases

147 Unraveling COL4A1 and COL4A2 variants: a review.
Merlijn Nemegeer (University of Antwerp, Belgium).

148 The chemical chaperone 4-phenylbutyric acid rescues molecular cell defects of COL3A1 mutations that cause vascular Ehlers Danlos Syndrome.
Tom Van Agtmael (University of Glasgow, United Kingdom).

149 Reduced collagen IV levels due to COL4A1/2 variants cause small vessel disease and hemorrhagic stroke via hypertrophic remodeling and endothelial cell dysfunction.
Tom Van Agtmael (University of Glasgow, United Kingdom).

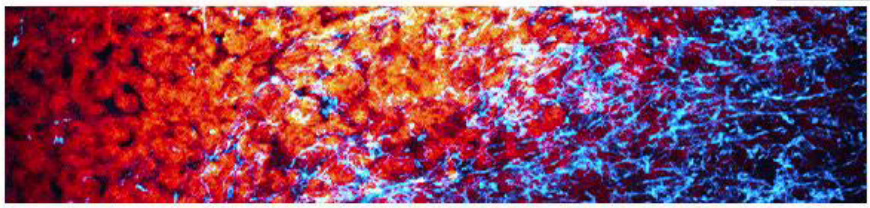
150 Matrix remodelling via MMP-2/9 in haemorrhagic stroke and cerebral small vessel disease due to collagen IV mutations.
Cameron Thomson (University of Glasgow, United Kingdom).

151 How extracellular matrix can modulate ectopic calcification in Pseudoxanthoma elasticum: new findings from the fibroblasts' secretome.
Francesco Demetrio Lofaro (University of Modena, Italy).

152 Investigating the role of collagen VI at the myotendinous junction in the mouse model of COL6-related myopathies.
Matilde Cescon (University of Padova, Italy).

153 Oral tissue remodeling impairement associated with hyperhomocysteinemia in patient: a first case description.
Karim Senni (Dental Square Clinic, Beyrouth, Lebanon).

154 Integrative Analysis of Extracellular Matrix Degradation and Polygenic Risk of Lung Function Decline for Improved Prediction of Chronic Obstructive Pulmonary Disease Progression.
Line Egerod (University of Copenhagen, Denmark).



155 Loss of function variants of ADAMTSX involved in a new syndrome related to Marfan syndrome.
Carine Le Goff (Paris-Sud University, Paris, France).

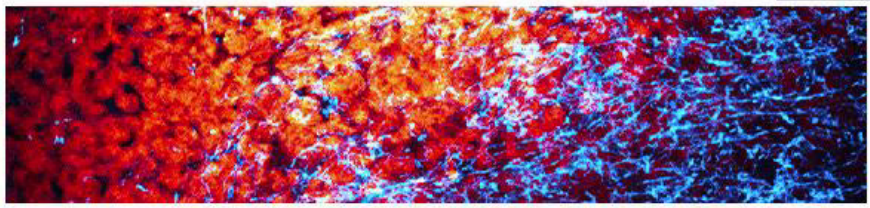
156 Pinpointing candidate pathomechanistic actors of biglycan-related disease by mRNA-sequencing.
Anne Hebert (University of Antwerp, Belgium).

157 Profiling of colon extracellular matrix reveals tumor and side-specific features
Ângela Magalhães (University of Porto, Portugal).

158 Drug repurposing screens in zebrafish unveil new therapeutic targets in COL6-related myopathies
Chiara Consorti (University of Padova, Italy).

159 Functional analysis of novel variant in COL5A1 in Polish patient with classical type of Ehlers-Danlos syndrome.
Anna Junkiert-Czarnecka (Nicolaus Copernicus University, Toruń, Poland).

160 The role of the Furin-like-convertase cleavage site of the α3(VI) chain in collagen VI assembly and function
Arthur Pasanen-Zentz (University of Cologne, Germany).



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