
Connective Issues:



BSMB Newsletter

Committee:

Prof Andrew Pitsillides (Chair), Prof Qing-Jun Meng (Secretary),
Dr James Whiteford (Treasurer), Dr Doug Dyer, Prof Chrissy Hammond,
Dr Anna Maria Piccinini, Dr Salvatore Santamaria, Dr Angus Wann,
Dr David Wilkinson, Mr Anders Jensen (Student rep)

Registered Charity no. 281399

No. 105, July 2024

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Andy Pitsillides

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BSMB Spring 2025 Nottingham meeting

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James Whiteford

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Editorial

Time flies, I can't believe it is already the 105th Connective Issues!

First of all, I would like to welcome the 38 new members who recently joined (or re-joined) the BSMB (Thanks George for your great efforts!). I hope you will enjoy being part of this very friendly and stimulating matrix society, as I have certainly made it my scientific home. BSMB values your views on how we can make the society even better so please get in touch. For early career members, we have plenty of bursaries to support your attendance of matrix-related conferences. Read on and find out more on how to apply.

I would also express a heart-felt gratitude to Chrissy Hammond and her co-organisers for putting together a truly outstanding BSMB 2024 meeting in Bristol. The mesmerising science, elegant dinner venue and unforgettable circus performance were certainly my highlight of the year! I am sure you have noticed many familiar faces of the BSMB super-family at this meeting, including several founding members and past executive committee of BSMB, what a treat!

There are a lot more matrix-related events to look forward to in the coming months, including the MBE 2024 meeting in Lyon this September, the BSMB Spring 2025 meeting in Nottingham, the BSMB Autumn 2025 meeting in Surrey, and the annual meetings of our fellow societies in different countries (e.g., ASMB, DSMB, DGMB, etc). I hope to see many of you in person in those matrix meetings!

Qing-Jun Meng, Honorary Secretary

Chair's letter

Dear Fellow Matrix Biologists,

Welcome from me too. I am penning this at an uncertain time: Who will win the UK Election? Who will win Euro2024? These questions will

likely be answered by the time you read this. Uncertainty is always there for us though: How will my experiment go? Will I *survive* my thesis defence? Will my paper get favourable reviews? Will I ever be ready to apply for a Fellowship? Will our grant be funded? 'Uncertainty is the only certainty there is..'. Sounds like I'm about to deliver bad news, but no, we can always be certain that BSMB and Matrix Biology *will* deliver.

Looking forward: There is still time to register for MBE2024 (24-27 Sept) in wonderful Lyon. Florence Ruggiero has prepared a splendid programme with many interaction breaks: from 'Career Networking' to 'meet the Speakers', as well as a superb list of excellent plenary presentations. We also wish our BSMB nominee for the 2024 Dick Heinegård award the very best of luck too.

More European interaction is possible, via the reciprocal concord we have that now allows you to attend – at lower member-status rates – the Annual Meeting of the German Society for Matrix Biology to be held in Regensburg on 11th-13th September 2024; ECRs will convene for a pre-meeting, featuring a social evening on the 10th and a special scientific session on the morning of the 11th. So get registered.

Closer to home and further ahead, pencil the 14th-15th April 2025 into the diary for a much-anticipated Spring BSMB meeting, which Anna Piccinini has themed on 'Extracellular Matrix, Immunity and Infection'. This will be held in 330 acres of rolling parkland at the University of Nottingham. The meeting will focus on the ECM and aspects of immunology, pathogen interaction, infection and immune ECM crosstalk. Register to join us and the many eminent speakers.

Looking back: A huge thank-you to Chrissy Hammond & her team in delivering a splendid Spring 2024 meeting in Bristol. It seems too long ago already, but the memory will always be jogged by the great science, ace speakers,

matched by those from BSMB and by a super dinner and entertainment. *Thanks Chrissy.* Finally, please read the excellent obituary to Darwin Prockop, a founding father of matrix biology research. A very sad loss

Here's hoping, with only a degree of certainty, for some summer sunshine.

Andy Pitsillides, BSMB Chair

BSMB News

Mark your diary

Matrix Biology Europe 2024 Meeting in Lyon
September 24th-27th, 2024

BSMB Spring 2025 Meeting
Extracellular Matrix, Immunity and Infection
Nottingham, April 14th – 15th, 2025

BSMB Autumn 2025 Meeting in Surrey
New Frontiers in Matrix Research: -omics, gene editing and AI. September 2nd-3rd, 2025

WELCOME TO NEW BSMB MEMBERS!

STUDENT MEMBERS

Beth Swallow (Leicester)
Abdulmohsen Alkhanbashi
Stavroula Tekkela (QMUL)
Thomas Kirk (QMUL)
Abubkr Ahmed (QMUL)
Claudia Clara (KCL)
Hannah McConchie (KCL)
Elliot Johnson-Hall
Ananya Singh (Warwick)
Angshumi Dutta
Gemma Farquhar (Newcastle)
Katie Lowles (Manchester)
Dingwei Wang (Manchester)

Fatmah Ghuloum (Manchester)
Tina Burkhard
Lucy Ormiston-Lee (Leeds)
Emily Wright (Manchester)
Izzy Matthews (RVC)
Kirstin Lowe (Manchester)
Anna Porter (Newcastle)
George Thompson (Bristol)
Olivia Pigden
Amir Khan (Bristol)
Alex Hartley (Nottingham)

FULL MEMBERS

Jorn Cheney (Southampton)
Nargess Khalilgharibi (UCL)
Antonis Giannopoulos (Loughborough)
Jessica Ackerman (Oxford)
Stefan Harmansa (Exeter)
Meredith Whitehead
Karen Still (Bristol)
Martin Lowe (Manchester)
Karen Mifsud (Bristol)
Swati Midha (Southampton)
Joanna Moss (Bristol)
Tayfun Dikmen
Susan Kimber (Manchester)
Magdalena Kaneva (QMUL)

By James Whiteford (Treasurer of BSMB)

Matrix Biology Europe 2024 Meeting in Lyon

September 24 to 27, 2024

Registration is open (and regular registration will close on 25th July) for the MBE 2024 meeting in the beautiful city of Lyon.

MBE2024 aims to serve as the international stage for significant discoveries and new concepts in the field of extracellular matrix research. It provides a platform for future research endeavors, featuring 23 invited speakers. The conference will bring together scientists from academia, medicine, and

industry to discuss all facets of extracellular matrix research.

ECM Biosynthesis, Dynamics & Epigenetics
ECM Targeting & Signaling in Homeostasis & Cancer
ECM-related Inherited Diseases
ECM in Inflammation & Immunity
Stem Cell Niche & Tissue Regeneration
ECM Ageing
ECM in Morphogenesis
ECM in Tissue Repair and Engineering
ECM Biomechanics & Mechanobiology
Tissue remodeling and fibrosis

So, register now and see you in Lyon!
<https://mbe2024.sciencesconf.org/>

BSMB Spring Meeting 2025 Nottingham

BSMB 2025 Spring Meeting – Organised by Dr Anna M. Piccinini, University of Nottingham.

I'm excited to welcome you to Nottingham, this is the first BSMB meeting to be held in the city where the story of the legendary Robin Hood began.



Our meeting theme will be 'ECM, Immunity and Infection' and will be held at University of Nottingham, University Park Campus. This Green Flag awarded campus is beautifully placed within 330 acres of rolling parkland featuring the idyllic grounds of Highfields Park with a boating lake, a public arts centre, a museum and cafés. With a mix of stunning architecture, traditional features and modern

facilities, the campus offers state-of-the-art meeting rooms, catering & accommodation.



The meeting will run from lunchtime Monday 14th April to mid-afternoon Tuesday 15th April with sessions on the ECM and the immune system, ECM-pathogen interactions and the immune response, ECM-immune system crosstalk in lung infections and hot topics in ECM, including the microbial ECM. Invited speakers include Judith Allen (Manchester, UK), Janet Lee (St. Louis, USA), Kristian Riesbeck (Lund, Sweden), Giampiero Pietrocola (Pavia, Italy), Tracey Hussell (Manchester, UK), Charles Frevert (Seattle, USA), Helene Moreau (Paris, France), Oliver Fackler (Heidelberg, Germany), Anna Blom (Lund, Sweden) and Luisa Martinez-Pomares (Nottingham, UK). The prestigious BSMB Fell Muir Lecture will also be delivered at this meeting. We encourage you to submit abstracts for invited talks and posters, making this a great opportunity for ECRs to present and discuss their work not only on "Matrix, Immunity and Infection", but also associated matrix research in our open session. With matrix biologists and immunologists coming together to share their work revolving around the matrix, expect plentiful fresh discussions and new collaborations!

Prior to the meeting, we will have an outreach programme with opportunities for primary school pupils to learn about a fascinating part of the human body they have never been told about: the ECM. Highlights of the programme will be showcased at the meeting.

Key Information:

- Registration opens January 1
- Early Bird registration closes March 16
- Late registration closes March 24

- Abstract submission opens January 1
- Abstract submission closes March 3

More information will be made available on the BSMB website in due course. See you all in Nottingham!

Anna Piccinini

BSBM Autumn Meeting 2025 Surrey

BSMB 2025 Autumn Meeting - Organised by Dr. Salvatore Santamaria, University of Surrey.

The meeting theme will be 'New Frontiers in Matrix Research: -omics, gene editing and AI' and will be held at the University of Surrey, Stag Hill Campus, on the 2nd and 3rd September 2025. The campus is just 10 minutes' walk from the Centre of Guildford, offering a vibrant blend of entertainment, culture and history. The borough includes part of the Surrey Hills, a designated Area of Outstanding Natural Beauty. On the morning of the 2nd September, the ECR Satellite event will have a theme "Employing the matrix: pathways to career", providing an opportunity for ECRs to network and discuss career pathways with prospective funders, employers and senior researchers. The main meeting will include sections on applications of -Omics, novel imaging techniques, gene editing and AI to matrix biology. The ECR Award and John Scott Lecture will be delivered on the evening of the 2nd September, followed by drinks and dinner. Stay tuned for more information!

Salvatore Santamaria

Dick Heinegård European Young Investigator Award – nominations outcome

Dr Shiyang Li (Manchester) was nominated by the BSMB for the Dick Heinegård European Young Investigator Award. Shiyang will deliver an oral presentation at the MBE 2024 conference in Lyon, France, alongside the other candidates nominated by their respective affiliated European Matrix Biology Society. The winner of the award will be announced at the meeting in September. Good luck Shiyang!

Anna Piccinini

BSMB Bursaries

BSMB Bursaries and Couchman Travel Awards are available. Current BSMB members are encouraged to apply for bursaries to present your matrix related findings in conferences.

1) **The Couchman Travel Award**, kindly sponsored by Professor John Couchman is open to applications. Each Travel Award will cover up to £150 for a BSMB meeting (~10 awards per year), or up to £300 for a European matrix-related meeting (~2 awards per year, including the biannual MBE meetings). Please follow the link [here](#).

2) For **bursaries to attend "Other meetings"** category: These bursaries remain open to the early career researchers (ie PhD students or up to 6 years post-doc). The awards are for up to £150 for UK meetings and £400 for meetings elsewhere in the world. Please follow the link [here](#).

3) For **bursaries to attend "Matrix Biology Europe (MBE) or American Society for Matrix Biology (ASMB) meetings"** category: These bursaries remain open and fund up to £500 for FECTS/MBE meetings and £600 for ASMB meetings. Please follow the link [here](#).

Applications should be sent to Dr Katarzyna Pirog (katarzyna.pirog@newcastle.ac.uk), Chair of the BSMB bursary committee. Please check your eligibility before applying.

Meeting Reports

The BSMB Spring Meeting 2024: The Dynamic Matrix: Mechanics, Ageing and Repair held at The Station Bristol, with dinner at The Mount Without. **Organised by Chrissy Hammond, Joanna Moss, Lizzie Lawrence and Nikki Stevenson and Rabia Sevil.**

Report by bursary awardees Marc Farcasanu (Newcastle) and Alexander Minns (Surrey)

Prior to the meeting there was a free satellite ECR event at the University of Bristol: with talks from a funder (Versus Arthritis represented by Michael Thor) on applying for fellowship, on preprinting and the Prelights initiative by Dr Nikki Stevenson, on moving to industry by Dr Lucy McGowan from Science Creates and some career coaching resources from Lydia Limecki from Bristol Clear. This event with breakfast and lunch provided gave some of the ECRs chance to get to know each other prior to the main event.

The main meeting began with a short introduction by Professor Chrissy Hammond, welcoming everyone to the meeting and highlighting the variety of approaches to matrix study being presented during these two days. The first session was chaired by Dr. Beck Richardson and Dr. Nicola Stevenson (both Bristol University), who introduced the first speaker, Professor Paul Martin (Bristol University). Prof. Martin delivered a talk on the live imaging of wound repair and the subsequent inflammatory response. The talk focused on the use of animal models, specifically zebrafish as they are easier to image due to their translucent skins. He emphasised the point that circadian rhythm impacts wound healing, as faster healing tends to occur at nighttime. Dr. Stefan Harmansa (University of Exeter) discussed the mechanics involved in the basement membrane during growth and how this impacts the transition from certain tissue

shapes to others in a fly model. Dr. Harmansa explained that the basement membrane exhibits viscoelastic properties and transitions from a solid to fluid like properties, depending



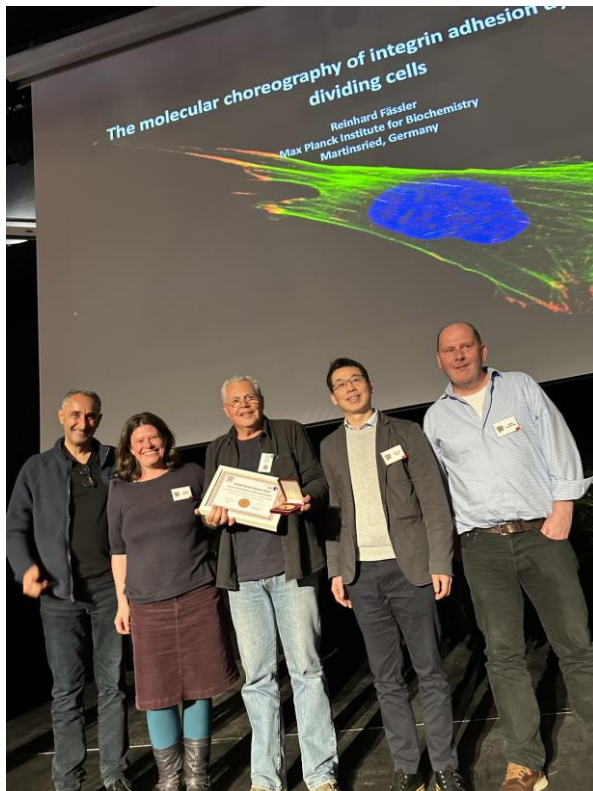
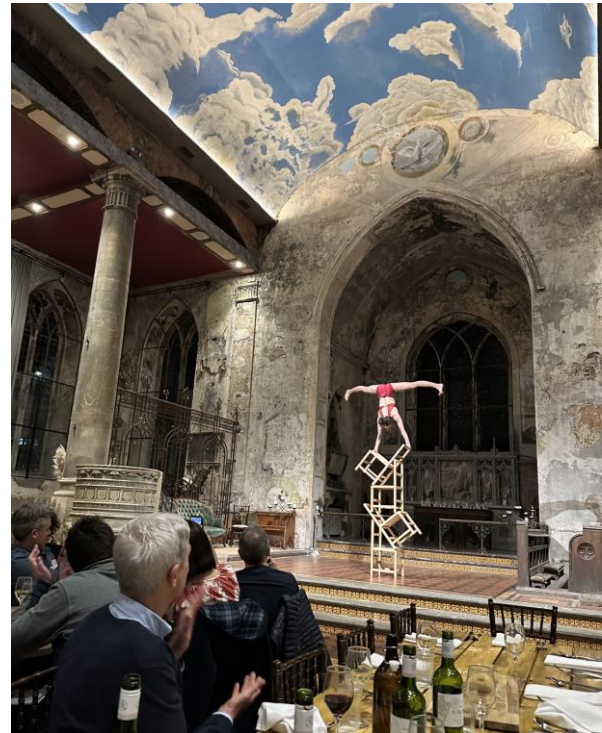
on the location along the membrane. Professor Tonia Vincent (Kennedy Institute of Rheumatology) gave an interesting talk on how intrinsic repair of articular cartilage damage can be facilitated by growth factor secretion via the pericellular matrix. She also discussed how joint distraction could delay the need for total joint replacement in younger patients suffering from osteoarthritis. The initial talks were followed by several flash poster presentations from PhD researchers and technical talks from the conference sponsors, highlighting new imaging and protein products available. This ended the first session of the day.

Refreshments were provided and enjoyed during the first poster session, after which the second session of the day began. Dr. Sophie Gilbert (Cardiff University) and Dr. Angus Wann (University of Southampton) chaired this session and introduced the first speaker, Professor Alicia El Haj (University of Birmingham). The talk focused on the engineering of the matrix via the use of magnetic iron oxide nanoparticles that allow for the alignment of collagen fibres in a collagen 1 hydrogel. She also discussed mechanoresponsive channels (YAP) via mechanically stimulating cells. This was followed by two abstract talks by Katie Lowles (University of Manchester) and Amy Lock (King's College London). Katie presented her

work on how macrophages induce a circadian rhythm response in fibroblasts, while Amy described the mechanisms underlying pain and puritus experienced by patients with keloid scars. Dr. Joel Boerckel (University of Pennsylvania) delivered a hybrid talk on bone fractures and the hypoxic response due to mechanical force application in mouse models. He discussed that the timing of load application is important to fracture repair and that the fracture gap doesn't exhibit hypoxic conditions. Following a quick comfort break and some more poster discussions, BSMB Chair Professor Andy Pitsillides then introduced Professor Reinhard Fassler (Max Planck Institute) who was presented with a BSMB Medal for his contributions to matrix research during his academic career. Prof. Reinhard gave a wonderful talk on his extensive work with integrins, focal adhesions, and their involvement in the cell division and rounding. He emphasises that cell rounding is important in the context of cell division and that activation of integrins can be

regulated via Kindlin-1 and -2. He showed that proteosomal degradation results in decreases in Kindlin-1 and -2, thus leading to inactivation of integrins.

The first day was concluded with drinks then a walk to the Mount Without for a lovely dinner coupled with dramatic entertainment from local circus performers.



L to R: A Pitsillides, C Hammond, R Fassler (BSMB Medal Awardee), QJ Meng, J Whiteford.

Day 2 started with an open session which began with a talk from Professor Eli Zelzer (Weizmann Institute of Science). Prof Zelzer presented a comprehensive overview of transcription factors involved in various stages of modular bone development and progenitor regulation. He also emphasised the importance of chondrocyte organisation in bone development. Next, Dr Camila Bussola Tovani (Sorbonne Université) presented her work on a novel injectable collagen hydrogel for studying bone development, with comparable calcification to *in vivo* bone, and showing good bioavailability. To end the session, Dr Kazuhiro Yamamoto (University of Liverpool) presented his work on the endocytic receptor LRP1 showing that its ligands and downstream pathways were all

implicated in a variety of skeletal defects in mice.

The second session “modelling the matrix”, opened with a talk from Prof Niamh Nolan (University College Dublin). Prof Nolan showed a variety of computer simulations to model physiological, anisotropic, zebrafish jaw growth, with gradients of compressive stress providing the best simulation of *in vivo* growth. Next, Dr Nargess Khalilgaribi (UCL) showed a model of changes in *Drosophila* wing shape under stress, a phenomenon linked to the degradation of the basement membrane. Dr Chris Revell (University of Manchester) then presented a mathematical model of tendon collagen fibril assembly, which resulted in similar fibril structure and defect distribution to electron microscopy images. Finally, Dr Joe Swift (University of Manchester) summarised the extensive mechanobiological responses of senescent cells. Senescent cells showed decreased mechanical stress responses and exhibited a protein distribution in the proteome comparable to that of cells under stiff conditions.

The final, “Ageing Matrix” session, began with a talk from Dr Erika Kague (University of Edinburgh). Dr Kague eloquently showed the effects of a large panel of gene knockouts on zebrafish joints, observing that developmental joint shape is a contributing factor to osteoarthritis risk, despite not predicting final joint shape. Next, Roza Izgilov (Tel Aviv University) showed the effects of nutrition on adipocytes and the ECM. Introducing glycation intermediates into adipocyte culture resulted in a stiffer ECM, YAP mechanosensor translocation to the nucleus, and cytoskeletal disruption. Dr Meredith Whitehead (King’s College London) then presented her research into ECM calcification in ageing. Endocytosis inhibition reduced the negative effects of calcified ECM on healthy VSMCs and may be a novel approach to target effects of ageing. Finally,

Prof Farshid Guilak (Washington University) summarised his fascinating research into stem cell therapy. CRISPR-generated synthetic gene circuits were able to respond to chronic inflammation with inflammatory, mechanosensory, and circadian regulation.

The event ended with the presentation of poster prizes for George Thompson (pictured below) and Claudia Clara, the Oral presentation prize for Dr Meredith Whitehead, and a well-deserved thank you and round of applause for Prof Chrissy Hammond and her team!



We missed you if you were not there and we hope to see you in the next meeting in Nottingham

The Keystone ‘Regulation of Barrier Immunity’ Symposium 2024, by Nabina Pun (University of Manchester)

The Keystone ‘Regulation of Barrier Immunity’ Symposia took place in Banff, Alberta, Canada from the 18th- 21st of February 2024. The meeting was organised by David Artis, Yasmine Belkaid, Fiona M. Powrie and Kenya Honda. The meeting was held in-person and was attended by the international mucosal immunity scientific community. The

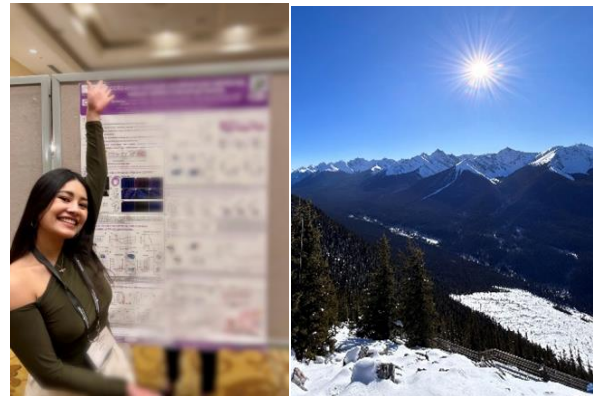
conference included sessions focusing on the barrier surfaces of multicellular organisms which are immunologically active, highly

innervated and sites where host genetic and environmental signals are integrated to regulate local and systemic physiology. These tissues are sites of infection and chronic inflammatory diseases including atopic dermatitis, asthma, allergy, inflammatory bowel diseases and cancer. However, fundamental gaps in knowledge remain regarding the complex interplay between structural components of tissues such as the epithelium, sensory apparatus, stroma or vasculature and microbial factors and inflammatory mediators at barrier sites. This Keystone Symposia conference was designed to explore new cross-disciplinary paradigms in barrier immunity through integration of emerging topics in understanding of host-microbe interactions and environmental factors with sensory networks of the epithelia, nervous and immune systems. This conference showcased how a multidisciplinary and global approach to barrier immunity will guide development of new therapeutic strategies for the treatment of multiple infectious and inflammatory diseases including asthma, allergy, inflammatory bowel diseases and cancer.



Sessions started at 8am and attendees were encouraged to take their own lunch and get involved with skiing or other snow activities from 11am – 5pm with some sessions starting at 2:30pm on some days. Talks restarted at 5pm and went on till 7pm at which point the poster sessions started and went on till 10pm.

These poster sessions were a great opportunity network with other researchers

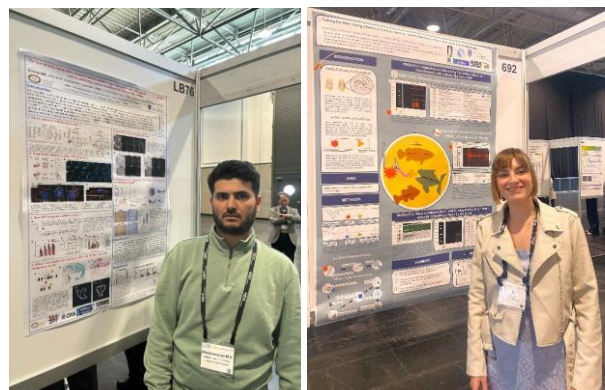


and stimulated conversations that aided future post doc opportunities.

I thank BSMB for supporting my attendance at this conference as not only did it allow me to disseminate my work, but also offered an essential networking opportunity enabling me to meet and have scientific conversations with academics that I hope to work with in the future thus greatly benefiting my future goals in securing a post-doctoral position.

OARS 2024, by Abullahman ME Gremida and Mary Hines (University of Liverpool)

The 32nd Osteoarthritis Research Society International (OARS) congress was organised at Messe Wien Exhibition and Congress Centre from 18 to 21 April 2024 in Vienna. The conference was really well organised for international level conference. The conference was sponsored by several



companies including Novartis. Within 4 days schedules the conference was organised in total 12 concurrent, 7 plenary sessions, 230 presentations and 973 posters. The conference included 1200 participants from 50 countries to present their recent work in the area of osteoarthritis. Congress attendees are involved in all aspects of OA including biomarkers, imaging, pain, cell biology, biomechanics, genetics and genomics, prevention, cartilage repair and treatment.

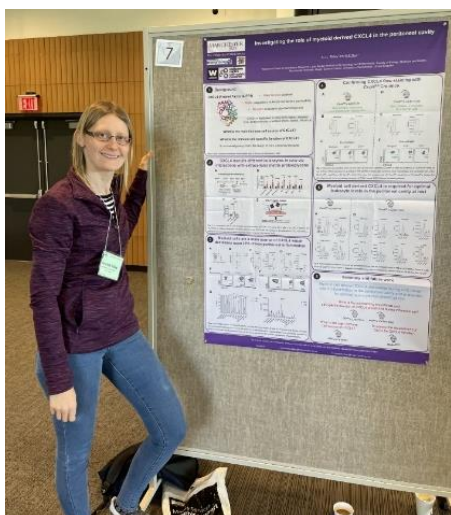
The city greeted hundreds of international researchers with typical European weather: gray skies and chilly wind. Despite this, the conference offered a variety of networking opportunities in the form of breakfast sessions, poster tours, vendor introductions, and several themed sessions comprised of research presentations that tackled the different areas of osteoarthritis research. Notably, the authors of the highest-rated conference abstracts presented their work which included projects ranging from clinical health to epigenetic and biomechanical investigations of issues surrounding OA. The first day closed with an address from the president of OARSI welcoming the attendants to the historic city of Vienna. The concurrent three days were packed with loads of interesting presentations from presenters from all backgrounds. While I appreciated all the fascinating science, I was thankful for the opportunity to sneak away and see the local historic Hofburg palace and try Wiener Schnitzel, a local delicacy. The subsequent day saw sessions dedicated to topics such as *Innovation in OA* and *Molecular Circuits Regulating joint Destruction* among others. The day also included poster sessions, giving attendees a great chance to connect with one another through science. Individual presentations included talks by researchers such as industry-representative Alex Goraltchouk who expounded on the effects of Fibroblast Growth Factor 18 gene therapy on OA-related tissues in a rat model of induced-OA. Different doses of FGF18 injections into

the joints of OA-induced rats saw effective treatment responses in both cartilage and bone: cartilage thickness was increased by up to 106% and both cartilage and bone morphology remained mostly consistent in FGF18-treated rats while control groups demonstrated cartilage erosion and maladaptive subchondral bone remodeling. Drawbacks from the injections included joint swelling and the need for as many as 12 repeat injections per year to maintain the best treatment. The conference ended the day with an international event designed to strengthen research collaborations between China and Germany-based researchers. April 20th marked the third day of the conference and another day filled with interesting research presentations. An afternoon research session themed around *Molecular Drivers of OA* included a fascinating talk exploring the mechanisms of regeneration in lizard tails. Dr. Thomas Lozito shared his recent research on genetic drivers of regeneration in green anole lizards and mourning geckos profiling the changes in cell differentiation throughout the regeneration process. Later, another poster session took place wherein both my supervisor and I presented posters to the attendees. We both were able to connect with fellow researchers in our field and I was immensely grateful for the chance to meet and explain my research to potential collaborators. The conference closed on April 21st with a greatly anticipated year in review session that outlined important research developments in OA research areas. Overall, I felt extremely blessed to have the opportunity to attend the 2024 OARSI Word Congress with my supervisor in such a grand venue as Vienna, Austria.

Gordon Conference on Chemotactic Cytokines, by Amanda Ridley Mainwairing (University of Manchester)

The Chemotactic Cytokines Gordon Research Seminar (GRS) and Gordon Research

Conference were held on 1st-2nd June and 2nd-7th June respectively, at the University of Southern Maine in Portland, Maine, USA. The conference was chaired by Ronen Alon and served as the 15th Chemotactic Cytokines GRC conference, first starting in 1994 and running every 2 years. Over 140 conferees attended in person, with around a third of which were able to present their research orally, along with 43 posters. During the GRS, there was a strong focus on young scientists giving talks and presenting posters to experts in the field. Specifically, from a personal level, I was given the opportunity of presenting a poster throughout the duration of the conference which resulted in gaining some invaluable experimental input from leading experts in the chemokine field. Sessions started at 9:00am, with lunch from 12:30–4:00pm at which point poster sessions were held until dinner at 6:00pm, before talks restarted at 7:30pm until 9:30pm. The quality of science was excellent, covering cutting edge research on a range of topics including mechanisms of directed cell migration, ACKRs in health and disease, chemokines and GPRs in the nervous system, therapeutic targeting of chemokines and receptors, chemokines in tumorigenesis and chemokine functions in lymphoid organs. A lot of the therapeutic work and advances made were surrounding targeting of the CXCR4-CXCL12 pathway in disease. Other notable advances were on the role of GAGs as receptors for chemokines



specifically CXCL4. The conference was blessed with superb weather, allowing conferees to enjoy the outdoors during session breaks and take advantage of walks along the nearby piers. Social interactions at the conference were good during poster sessions and post day session drinks and promoted networking between ECRs and senior investigators. Additionally, there was a GRC Power Hour which focused on promoting diversity and inclusion in the scientific workplace. In addition, feedback reviews on the quality of the science at the conference from attendees were positive. Specifically, from a personal level, I established a collaboration with a well-established senior investigator who I am hopefully will support my future early career fellowship applications.



The conference was valuable in highlighting that the chemokine field is at an exciting stage with new breakthroughs being made, like the importance of GAGs for chemokine function and the therapeutic potential of nanobodies. It also demonstrated that there remain many outstanding research questions, and given the relevance of chemokines to many diseases, emphasized the work still needed to be done. I thank the BSMB for supporting my attendance as not only did it allow me to disseminate my work, it also provided me with an essential networking opportunity enabling me to meet and have conversations with senior investigators I hope to collaborate with in the future thus greatly benefiting my future early career fellowship applications.

News from the International Society for Matrix Biology

Travel Funding

ISMB provides international travel grants (on average 500 €) for young scientists (graduate students or postdocs up to 5 years after PhD, with extensions for maternity leave, military service, etc) to allow them to attend major meetings in matrix biology anywhere in the world. While priority will be given to meetings directly supported by ISMB (including Matrix Biology Europe, American Society for Matrix Biology and Pan Pacific Connective Tissue Societies Symposium), applications are accepted for any meeting, provided that its scope agrees with the aims of the Society. Candidates should be members of the ISMB, and a graduate student or postdoc. up to 5 years after PhD, with extensions for maternity leave, military service, etc.

Grants will be paid out in the form of reimbursement to grant awardees, after reception of proof of participation. To this aim, users must send a receipt of the expenses (e.g., meeting subscription fees, etc.) within 3 months from the end of the meeting they received support for. To apply for a travel grant, please fill the the form available on ISMB web site (<https://www.ismb.org/copy-of-travel-grants> [ismb.org]) and append a single pdf file containing:

- (1) a letter giving information about the meeting, the amount requested and a detailed justification for support
- (2) the abstract of your poster/short talk
- (3) your curriculum vitae and list of publications.

Please apply several months in advance of the meeting, before one of the following deadlines: January 1, April 1, July 1, October 1.

Current BSMB Committee

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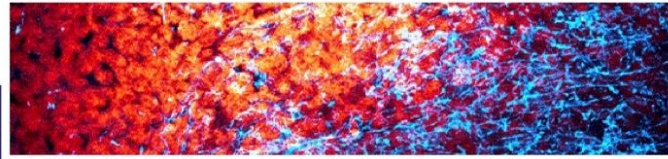
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SEE YOU IN LYON IN SEPTEMBER!

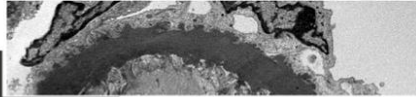
MATRIX BIOLOGY EUROPE 2024

24-27 SEPTEMBER, 2024
Lyon - France



YOUTH@MBE

SATELLITE MEETING
Lyon - France
24 SEPTEMBER, morning



Keynote Speaker
Julie di Martino (USA)

Organizing Committee

Julia Marzi (DE)
Arnaud Mieville (CH)
Hisoliat Bacar (FR)
Thomas Loustau (FR)

Invited Speakers

Vassilis Aidinis (Greece)	Johanna Myllyharju (Finland)
Marie Breau (France)	Alexandra Naba (USA)
Paolo Bonaldo (Italy)	Ellen vanObberghen-Schilling (France)
Bert Callewaert (Belgium)	Francesco Pasqualini (Italy)
Joan Chang (United Kingdom)	Yuval Rinkevitch (Germany)
Collin Ewald (Switzerland)	José Carlos Rodriguez Carota (Spain)
Thomas Harmsen (Netherlands)	Lydia Sorokin (Germany)
Martin Humphries (United Kingdom)	Brian Stramer (United Kingdom)
Thomas Kammertoens (Germany)	Lieven Thorrez (Belgium)
Rachel Lennon (United Kingdom)	Daniel Wehner (Germany)
Catherine Moali (France)	Chloé Yeung (Denmark)

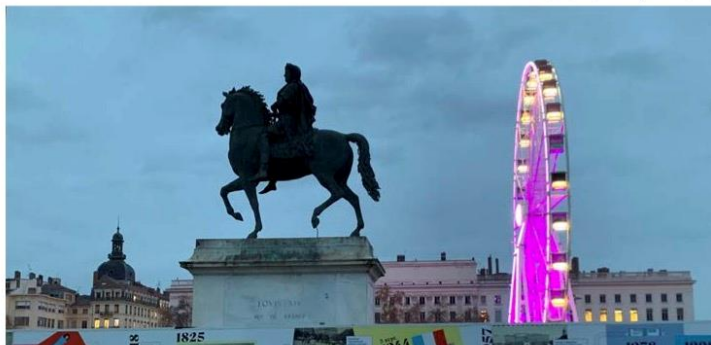
<https://mbe2024.sciencesconf.org>

Local Organizing Committee

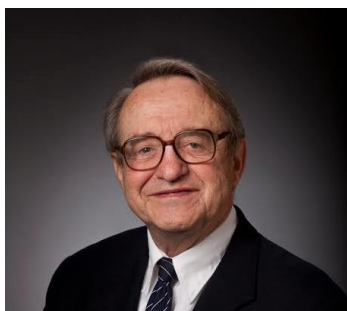
Florence Ruggiero, Chair
Laurent Duca
Carine Le Goff
Sabrina Kellouche-Gaillard
Laurent Muller
Sylvie Ricard-Blum
Patricia Rousselle
Ulrich Valcourt

International Organizing Committee

Janette Burgsen, Netherlands
Julia Etich, Germany
Andrew Pitsillides, United-Kingdom
Nikos Karamanos, Greece
Valerio Izzi, Finland



Darwin Prockop – a founding father of matrix biology



Dr. Darwin J. Prockop was an American scientist and one of the founding fathers of matrix biology research. He died in January 2024 aged 94 after a

distinguished research career spanning 6 decades. During that time he published over 600 research papers and trained a large number of PhD students, postdocs and fellows who went on to be vice chancellors of universities, as well as chairpersons and directors of university departments and research centres. These included Mike Grant, Bjorn Olsen, Jouni Uitto, Peter Bruckner, Leena Bruckner-Tuderman and Taina Pihlajaniemi.

Darwin's papers in the 1960s on the quantitation of hydroxyproline started a long fascination with collagen. In the early 1970s Darwin focussed on characterising the biosynthesis of collagens. Inevitably, with the development of recombinant DNA technologies, the lab focussed upon characterising mutations in the genes for type I collagen that cause osteogenesis imperfecta (OI) and their effects on the folding and processing of collagen. He pioneered the use of purified procollagen and N- and C-proteinases to demonstrate how OI mutations affected fibril formation (these studies being performed by a young UK postdoc by the name of Kadler).

In later years Darwin reinvented himself as an international authority on mesenchymal stem cells (MSCs) with a view to using these cells to treat many diseases such as OI. He helped to rigorously characterise MSC lines and generated banks of cells for distribution to the research community. In his later years he established the institute for Regenerative Medicine at Texas A&M which he directed until his passing.

Darwin was awarded numerous medals and honours from scientific societies and universities, and was appointed member of the National Academy of Sciences and the Institute of Medicine for his outstanding contribution to biomedical sciences.

In preparing this obituary we (RB-H & KEK) acknowledge the impact of Darwin on our careers which began in 1984/5 when we joined Darwin's laboratory at Rutgers Medical School, New Jersey, where Darwin was Head of the Department of Biochemistry. Without exaggeration, this was a powerhouse of matrix biology. Bjorn Olsen, Eric Eikenberry, Barbara Brodsky, Francesco Ramirez, Jeanne Myers, and Dick Berg all had laboratories in Darwin's department. Visitors included Kari Kivirikko, Rupert Timpl, Karl Tryggvasson, Paul Bornstein, Helene Sage, Jürgen Engel, Charles Boyd, Marku Kurkinen, Ron Minor, Hideaki Nagase and Mon-Li Chow, and a young Boot-Handford who came from Mike Grant's group in Manchester to learn molecular biology research methods. In 1985 we moved with Darwin from Rutgers to Thomas Jefferson Medical College, in Philadelphia to establish the Jefferson Institute of Molecular Medicine. Downtown Philadelphia was certainly a more fun environment to live compared to the more urban Piscataway where Rutgers is based! Over the next few years we returned to the UK on Research Fellowships and are in no doubt that the foundations of our later successes were attributed to the training and experience gained whilst working with Darwin.

Those who worked with Darwin will remember the 'yellow note pads' that he used to handwrite and edit manuscripts, then passing the yellow pads to secretaries to type on white paper in preparation for the next round of editing on yellow pads. A research paper could be drafted and submitted within a week! People will also remember his love of tennis and being a 'fourth' in Darwin's weekly evening tennis sessions. They will also remember Darwin being the first in the Department in the morning and the last to leave at night. A lasting memory of Darwin is the look of excitement on his face when shown a new result, and the encouragement this gave you to go back into lab to do it again. He had an infectious enthusiasm for research that inspired confidence in the people who worked with him. Darwin's legacy is more than the 600 or so papers that he published, it is the dozens of researchers who went through his lab, and his departments, to be inspired to go on to lead successful careers.

Ray Boot-Handford and Karl Kadler

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