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# Connective Issues:



## BSMB Newsletter

### Committee:

Prof Andrew Pitsillides (Chair), Prof Kim Midwood (Secretary),  
Dr Tom van Agtmael (Treasurer), Dr Michal Dudek (Post doc rep),  
Prof Jerry Turnbull, Dr Kasia Pirog, Dr Blandine Poulet, Dr Maria  
Fragiadaki, Dr Anna Maria Piccinini and Dr Chrissy Hammond

Registered Charity no. 281399

No. 100, January 2022

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## Editorial

Happy new year everyone and welcome to the 100<sup>th</sup> Connective Issues!!! Following a season of boosters and cautious festivity, hope emerges that 2022 will be the year we meet again in person. The online BSMB meetings have been a fantastic success, as we continue to push our technological capabilities, and find new ways to connect, interact and talk about Matrix Biology. We look forward to the next of these, hosted by Giovanna Nalesso via the University of Surrey, on April 12<sup>th</sup> and 13<sup>th</sup>, which explores how lipid-matrix interactions are absolutely critical in health and disease.

We are also planning a face-to-face BSMB meeting this year, in Liverpool in September. More details can be found below but it feels timely to highlight that we have a wide range of funding opportunities for members to attend, not only BSMB meetings, but any meeting at which they wish to present matrix related work. Designed particularly to support students and early career scientists, there are also opportunities for all to apply. These include the newly established Couchman Travel awards, as well as our existing bursary prizes. So, now is the time to join the BSMB! And/or encourage your students, post docs and colleagues to join, (you can do this [here](#)) to be eligible for these awards. And if you are already a member, you can apply for bursaries now!! Details can be found within or online.

Finally, we are currently seeking a new student rep. Please see below for more details of what this exciting role involves and how to apply. This is a great opportunity to become more involved in the Society and make sure the student voice is heard...

*Kim Midwood, Honorary Secretary*

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## Chair's Letter

Dear Fellow Matrix Biologists,

Back to the fold: I am delighted to be writing my first letter as BSMB Chair. It is a huge pleasure and great honour to take on this exciting role and I eagerly await working with Committee colleagues into the future.

Looking back: the very first Newsletter I helped to deliver in my time as Secretary back in 2011 (No. 78), included a Chair's letter from Ray Boot-Handford containing a vote of thanks to John Couchman, the *then* outgoing Secretary who had served for 7 years on the Committee at that time. It registers perfectly now to have my own chance to thank John too. John has been our Chair for 6 years since July 2015 and has served as a cog at the very centre of BSMB's activities for many more. His unwavering focus on retaining the BSMB reputation as an international mainstay of matrix biology has been simply stupendous. We are all aware that the BSMB continues to be in excellent shape and I will endeavour to carry on its traditions for economical meetings, support for younger members, and for being a major force in matrix biology. I would like, on behalf of all Honorary, Full and Student BSMB Members (new and less new), the Committees and Executives (past, present and future) to offer our great thanks for all of these efforts - John - and to extend our wishes to you for a long, healthy and happy retirement. In lasting custom, we look forward to future meetings in order that we can welcome you back.

Under John's tenure, there have been many wonderful BSMB meetings. Most recently, the Online meeting on 'Inflammation, Fibrosis, Resolution and the Matrix' via the University of Oxford (Spring 2021) organised by Steph Dakin, followed by the Autumn meeting entitled 'Extracellular matrix in rare disease' hosted by Kasia Pirog

(University of Newcastle). The BSMB is very grateful to both local organisers and especial thanks are due to Steph Dakin who has completed her term of office on our Committee this year – thanks Steph.

Looking further back: it may not have escaped you that this is our Centenary Newsletter. Having excavated from our BSMB heirlooms a retrospective from Doreen Ashhurst, documenting the history of our first 25 years, it is most fitting that Tim Hardingham will share his thoughts on our 100th Newsletter. Tim was BSMB's (then British Connective Tissue Society) first Secretary and his deliberations will serve to honour our past and look forward to the future, providing us with a driving impetus to anticipate a new era for our discipline.

Looking forward: As ever, BSMB has many plans for the future that we can all eagerly anticipate. None more than BSMB's Spring meeting entitled: 'Interactions between Lipids/Derivatives and the ECM: pre-clinical and clinical relevance' due on April 12-13<sup>th</sup>, 2022. This online meeting will be hosted by Dr Giovanna Nalesso (University of Surrey). Amazingly, this was originally scheduled for Spring 2020; who'd have thought that we'd have two years like the last – let's hope that the tide has changed. It is timely to wish Giovanna every success and to thank her for retaining *ex officio* committee status to facilitate its organisation.

After more than two years of virtual meetings, we can now also anticipate an exciting BSMB Autumn meeting hosted by Blandine Poulet in Liverpool (Autumn 2022) that will bring our scientific community together in person – finally! (please). The meeting will be themed upon the exciting research performed at the interface between developmental and matrix biology: 'The Matrix in Development'. Don't miss this opportunity to join us.

Looking wider afield (with mask, gloves and booster jab, if needs be), the next Matrix Biology Europe meeting (MBE2022) is due to take place in Florence on 28-30<sup>th</sup> September, 2022 in the magnificent Palazzo degli Innocenti where you can expect many exciting sessions, including presentation of the prestigious Dick Heinegård award.

Looking further forward: The Dick Heinegård Award honours an international matrix biology superstar and is presented to early career scientists with a demonstrable record of excellence in matrix biology research. Our nominee will receive a full bursary to cover MBE2022 attendance and we anticipate that they can join the line of worthy previous recipients. This leads me back to BSMB's commitment to support early career scientists. To this end, we are planning a series of informal stand-alone – 'get to know each other' – BSMB Early Career Researcher events, with the hope that they might later become incorporated into our standard 1 ½ day-long meeting agendas. We have also recently (and warmly) welcomed George Bou-Gharios back onto the Committee so that he can oversee BSMB membership and help to drive delivery of a vision where early career researchers can better manage and construct their careers in matrix biology – thank-you George.

Our thanks are also due to Laura Collins; outgoing Student Representative. This position on the BSMB committee is now vacant and I ask all members to support nominations from talented students in their groups and to urge them to apply; this is often a first step in forging a future in matrix research. In addition, we welcome Chrissy Hammond (University of Bristol), our new Committee member, and look forward to her contributions over coming years to the great BSMB team. We are grateful to all Committee members for their efforts on our behalf.

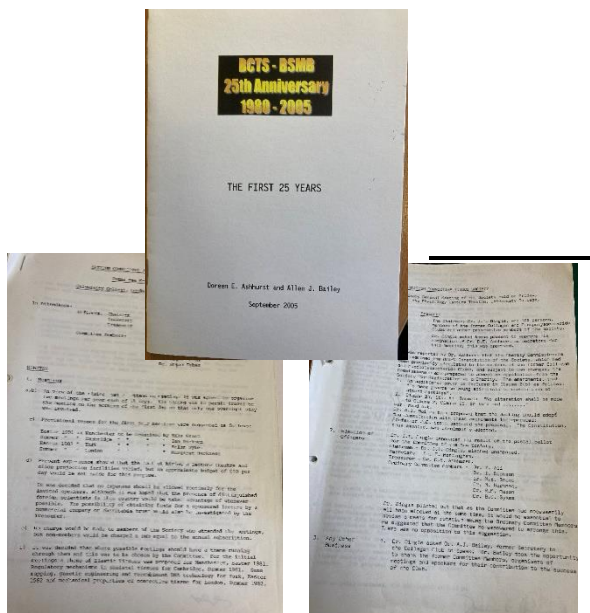
Finally, I wish all BSMB members a fabulous, healthy and rewarding 2022, and hope that we can all meet virtually in April and in-person in Liverpool later this year to celebrate our science and, with any luck, our emancipation.

Best wishes to all BSMB members  
Andy Pitsillides, BSMB Chair

I would like to thank all my colleagues and friends at the BSMB for this beautiful carafe. It has been a pleasure and privilege to be part of the BSMB for many years and I wish this special Society and its members every success in the future. I look forward to meeting with many of you at upcoming BSMB events.

*John Couchman, BSMB Chair, 2015-2021*

**Photos from the BSMB archive:** top – cover page of article written by Doreen Ashurst reflecting on the first 25 years of the BSMB; bottom – meeting minutes from 1980.



## Mark your diary

### BSMB Spring 2022 Meeting

Online via the University of Surrey  
Interactions between Lipids/Derivatives  
and the ECM: pre-clinical and clinical  
relevance  
April 12-13 2022

### BSMB Autumn 2022 Meeting

University of Liverpool  
The matrix in development  
September 2022

### BSMB Spring 2023 Meeting

University of Sheffield  
RNA metabolism and the matrix.  
April 2023

## Note of thanks



## BSMB News

### BSMB Spring 2022 meeting: save the date!

The next Spring Meeting of the British Society for Matrix Biology will be hosted virtually by the University of Surrey on the 12<sup>th</sup> and 13<sup>th</sup> of April 2022. The theme of the meeting is "Interactions between Lipids/Derivatives and the ECM: pre-clinical and clinical relevance" and we have an amazing programme of speakers.

Registration will open on the 17<sup>th</sup> of January.

For further information please visit:  
bsmb.ac.uk

You can also follow us on...

Instagram: @matrixbiologyuk

Twitter: @BSMB1

Facebook: @BritishSocietyForMatrixBiology

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## WELCOME TO NEW BSMB MEMBERS!

### Full Members

Christopher Platt

Juliette Hughes (Edgehill University)

Wing Ying Chow (Grenoble)

Anke Roelofs (Aberdeen)

### Student Members

Linda Mies (Oxford)

Emma Barker (Nottingham)

Marc Vlad Farcasanu (Newcastle)

Frank Antwi (Cardiff)

Nathan Jariwala (Manchester)

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## BSMB MEDAL announcement



Following on from the inaugural BSMB Medal Award to Ken Yamada in 2019, we're delighted to announce that the BSMB Medal Award for 2022 goes to Prof Kathy

Cheah, for her outstanding contributions to Matrix Biology. Kathy will deliver her Award Lecture at the BSMB Spring meeting held in April this year. See below for more details on how to register for this.

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## In print!

**In print:** Abstracts from the Oxford BSMB Spring meeting 2021 are currently in print online in the International Journal of Experimental Pathology.

**In prep:** Abstracts from the Newcastle BSMB Autumn meeting 2021 will be in print soon in the International Journal of Experimental Pathology.

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## BSMB Committee news

### Seeking new BSMB student rep

We are seeking one Student representative to join the BSMB committee. This role provides an exciting opportunity to see behind the scenes of how the society operates, and to meet matrix biologists at all stages of their career.

The role involves managing the society's social media accounts, reporting any concerns from the student members to the committee, and being on hand at conferences to welcome delegates and organize social events such as pub trips. It is a highly rewarding job that takes little time and is ideal for any student working in matrix biology who is energetic, sociable, and keen to get involved in the society.

Any current graduate student member in good standing is eligible. This post represents the student and community within the BSMB, and

ensures that the views and interests of the younger members of the society are heard. Posts will be for 2 years in the first instance. The first qualified applicant to apply for either post will be awarded the position.

To apply: email your CV and a brief letter of support from your supervisor to Kim Midwood: [kim.midwood@kennedy.ox.ac.uk](mailto:kim.midwood@kennedy.ox.ac.uk)

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## **100 not out for Connective Issues!**

### **Personal Reflections from Tim Hardingham (Secretary of BCTS 1980-83, Chairman BSMB 1996-2002)**

#### The Society

British Society for Matrix Biology (originally British Connective Tissues Society) has always had at its centre the aim to provide a community where a basically small research field can come together and learn from each other. To be successful it knew that being a member needed to be value for money. It quickly adopted a format for day and a half meetings where members can travel from anywhere in UK to a BSMB venue in a morning and you can travel home late on the next day. This gives three good sessions and keeps the cost down with just one overnight stay. Most importantly this gives time for an evening to socialise and meet up with Matrix friends. What could be better? Beauty on a budget! It provided the ideal environment for grad students and young post docs to jump into the firing line of research talks and poster presentations, to hone their skills and defend their ideas in the face of genteel, but informed and incisive questions. The Society soon incorporated prizes for these activities to recognise effort and skill? To

say it generated a happy family, of course, is a rose-tinted overstatement! But it provided research support for a forum for the best of Matrix Biology in UK and from overseas. That it has staggered on to celebrate 100 issues shows that the BSMB formula has worked! We all know that Matrix functions by being organised and the success of BSMB is also down to the many volunteers on the committees, who organised meetings and raised funds, all at minimal cost to the community. Like the ugly duckling that grew into the graceful swan, it's the frantic paddling of all the volunteers beneath the surface that has made BSMB's stately progress seem effortless. As we glide past 100 Connective Issues we can look back with some pride and look forward with some optimism. Matrix is here to stay! BSMB may need to adapt at times to facilitate its progress, but if it retains its community spirit, its in good shape for the next 100 Connective issues

#### The Science and the Future

In the journey through 100 Connective Issues Matrix biology has developed from what many would call a minor niche topic, to becoming more widely recognised and seen as implicit in the biology of all multicellular organisms and furthermore a hotbed for understanding multiple chronic human diseases. It has moved (in my biased opinion) from being at the periphery of biological research to being embedded at its centre. There has been a clear transition from Matrix being too readily perceived as dull, dry and static, to being understood, as structural by all means, but also dynamic, adaptive, full of signals and full of subtlety, orchestrating cellular responses that sustain health and when dysregulated leading to disease. This burgeoning prominence of matrix has been fuelled in no little part by technology. We now have a range of approaches that can tackle the messy jungle of matrix that was once daunting for researchers. The perception



and influence of Matrix has steadily spread into other specialist areas of biology, (even immunology!) We can now tackle big questions in Matrix from multiple angles and begin to make sense of it. We can analyse massive datasets to pick away the complexity and reveal processes and mechanisms that were just a pipe dream 99 issues ago! Matrix research has not been a flat arable field with an easy publishable crop, it has been and still is a challenge to make it fertile and to generate what's outstanding, but maybe that has always given greater satisfaction than one gets from easy pickings! Do we still have much to learn? By jove we do! As we learn more we come across new deserts of ignorance and realise we have a way to go through the foothills to gain a clear view of the high peaks. However, every contribution makes more solid the base from which new ascents can be made. Progress is always stochastic, significance is often only recognised in retrospect, Matrix may only occasionally be headlines, but in health and disease it underpins everything! Now that research has become more team science and multidisciplinary approaches enable a more profound understanding, we have the skills to integrate the cell biology, epigenetics, genomics, biomechanics and chronobiology of complex systems and to do so at varied scales and over varied time. To do this well every team needs a Matrix person to place it all in its biological context and to recognise how Matrix frequently acts both as a cause and shapes the consequences. Looking back the stock and credibility of Matrix has steadily risen over the life of BSMB and Matrix is now in a good place. The future of Matrix looks bright and please tell the funding agencies its definitely worth investing in!

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## **BSMB SPRING 2022 MEETING**

### **Interactions between Lipids/Derivatives and the ECM: pre-clinical and clinical relevance**

**Virtually hosted by  
the University of Surrey  
April 12-13 2022**

**Organized by: Dr Giovanna Nalesso**

It is our great pleasure to invite you to attend the BSMB Spring meeting which will be virtually hosted by the University of Surrey.

The conference will include 5 plenary sessions covering different aspects of the interactions between lipids and lipid-derivatives such as hormones and pro-inflammatory molecules with the ECM, in different areas of research. The speakers we have invited to present their work are internationally renowned scientists in different fields of research, spanning from respiratory diseases and embryology to regenerative medicine and cell to cell communication: Robert Snelgrove (Imperial College, UK), Sirio Dupont (University of Padua, Italy), Giampietro Schiavo (UCL, UK), Rami Hannoush (Genentech, USA), Stephen Badylack (University of Pittsburgh Medical Centre, USA), Nicholas Davidson (Washington University, USA), Dawei Zhang (University of Alberta, Canada).

The meeting will also host a BSMB Medal Award presentation, which will be given by Prof Kathy Cheah, from the University of Hong Kong.

We have also invited a special guest, Dr Steve Cross, a public engagement and communication consultant

(<https://drstevecross.wordpress.com/>), who will deliver an entertaining science communication session entitled “Communicating Science and being silly”, at the end of day one. To encourage networking, attendees will also be invited to a “speed networking” session.

Registration will open on the 17th<sup>st</sup> of January 2022 (visit [www.BSMB.ac.uk](http://www.BSMB.ac.uk) for details) and will close on the 20th of March 2022.

Registration will be free for BSMB members. The registration fee is £30 for non-students and £10 for students who are not members.

Abstract submission will close on 1/03/2022. Speakers will be notified by 15/03/2022.

We encourage submission of abstracts related to all areas of research pertinent to the BSMB and not only related to the theme of the meeting. Young investigators are particularly encouraged to apply.

Applications for meeting bursaries will close on March 1<sup>st</sup> 2022, with outcomes notified by March 7<sup>th</sup>.



## BMSB meeting Spring 2022

### Day 1

	Opening remarks	
12.00-12.05	Welcome and Introduction	Giovanna Nalesso-UoS

	<b>Session 1: Impact of lipid metabolism on the extracellular matrix</b>	
12.05-12.35	Prof Robert Snelgrove	Imperial College (London)
12.35-12.50	Shortlisted abstract	
12.50-1.05	Shortlisted abstract	
1.05-1.35	Prof Sirio Dupont	University of Padua
1.35-2.05	<b>Speed networking event</b>	
2.05-2.35	<b>Poster session</b>	
	<b>Session 2: Cell-to-cell communication</b>	
2.45-3.15	Prof Giampietro Schiavo	UCL
3.20-3.35	Shortlisted abstract	
3.35-3.50	Shortlisted abstract	
3.50-4.20	Dr Rami Hannoush	Genentech
4.30-5.15	<b>Dr Steve Cross: Communicating Science and being silly</b>	

### Day 2

11.45-12.25	<b>Posters</b>	
12.25-12.30	Intro to BSMB Medal Award	Prof Kim Midwood/Andy Pitsillides
12.30-1.15	BSMB Medal Award	Prof Kathy Cheah
	<b>Session 4: Open session</b>	
1.15-1.45	Dr Stephen Badylacks	University of Pittsburgh Medical Center
1.45-2.00	Shortlisted abstract	
2.00-2.15	Shortlisted abstract	
2.50-3.50	<b>Posters</b>	
	<b>Session 5: Mechanisms of disease</b>	
3.50-4.20	Prof Nicholas Davidson	Washington University
4.25-4.40	Shortlisted abstract	
4.40-4.55	Shortlisted abstract	
4.55-5.25	Prof Dawei Zhang	University of Alberta
5.25-5.30	<b>Prizes and closure</b>	

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## BSMB Bursaries

**Bursary applications are open now PLUS new Couchman Travel Awards available....**

1) Applications are invited for a reporter bursary to attend the BSMB Spring meeting to be held in Surrey in April 2022. Up to £250 can be claimed and the awardees can "redeem" this bursary for a future face-to-face BSMB meeting. For more details, please follow the [link](#) here.

2) The new Couchman Travel Award, kindly sponsored by Professor John Couchman. Each Travel Award will cover up to £150 for a BSMB meeting, or up to £300 for a European matrix-related meeting (including the biannual MBE meetings). Please follow the [link](#) here.

3) For bursaries to attend the "Other meetings" category: These bursaries remain open. Please follow the link here.

4) For bursaries to attend the " Matrix Biology Europe (MBE) and American Society for Matrix Biology (ASMB) meetings" category: These bursaries remain open. Please follow the [link](#) here.

Applications should be sent to [Qing-Jun Meng](#), Chair of the BSMB bursary committee.

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## Meeting Reports

**British Society for Matrix Biology  
Autumn 2021 Meeting Report**

**By Kasia Pirog**

The BSMB 2021 Autumn meeting entitled "Extracellular matrix and rare disease" was organised by Katarzyna Pirog at Newcastle University. The meeting was originally planned as an in person event, however, due to the Covid19 uncertainty, it was decided to adapt the meeting for delivery online. The aim of the two day meeting was to raise awareness of the rare diseases and the importance of matrix biology in rare disease research. Rare diseases are defined as conditions that affect fewer than 1:2,000 people; however, as a group of conditions they are quite common, affecting 1 in 17 individuals, which in the UK equates to 3.5 million people. Mutations in genes encoding the extracellular matrix components, cell-matrix adhesion complexes and signalling pathways are all implicated in rare disease. Moreover, rare diseases share common molecular mechanisms that can be targeted in order to find affordable treatments that can be applicable to common diseases and age-related conditions as well.

104 participants registered for the meeting, and the programme consisted of 9 presentations by invited speakers, 8 selected oral posters and 16 poster presentation. A BSMB Early Career Researcher Award was presented to Dr Giovanna Nalesso from the University of Surrey.

### **Day 1.**

The meeting was opened by Katarzyna Pirog who welcomed everyone, introduced the

online platforms for the meeting and emphasised the importance of not only matrix biology but also networking and the matrix of interactions in rare disease research. The first presentation of the “Rare Diseases of Connective Tissues” session was by Inês Alves, the president of ANDO (the National Association of Skeletal Dysplasias) in Portugal, a patient representative in ERN BOND, the European Reference Network for Rare Bone Disorders, and a patient expert at the European Medicines Agency and recently at the IMI. Inês was talking about “The matrix for research collaborations - The patient expertise in rare disease”, emphasising the importance of patient engagement and involvement in rare disease research, sharing a toolkit of resources and describing the ways to engage with patients and patient organisations. Next, Brendan Norman from University of Liverpool talked about analysing the bone metabolism in alkaptonuria, an inherited rare disease that affects the breakdown of tyrosine and phenylalanine, using untargeted mass spectrometry in order to detect differential tissue profiles and new markers of bone resorption. Eleanor Feneck from King’s College London talked about radial dysplasia and a functional deficit in connective tissue fibroblasts contributing to disorganised extracellular matrix in mutant muscle that leads to misalignment of muscle cells. The final presentation of the session was by Matthew Warman from Harvard University, who talked about the influence of the intestinal Piezo1 on bone formation, LRP5 in the intestines impacting on serotonin and bone homeostasis and the role of chondrocytes in the homeostasis of mature articular cartilage.

After the poster break and the AGM, the second session on “Rare Diseases of Connective Tissues” started with a presentation on osteogenesis imperfecta (OI) by Brendan Lee from the Baylor College

of Medicine, who talked about collagen disproportion in the OI Crtap KO mice and alterations in numbers of tendon progenitors, and about FKB10 mutations that are characterised by joint contractions rather than hyperextension. Jessica Llewellyn from University of Pennsylvania then talked about the EFEMP1 identified as susceptibility gene through GWAS of biliary atresia as important for function of the extrahepatic bile duct, and presented data showing altered mechanical properties of the tissue and altered cellular mechanoresponsiveness in EFEMP1 hemizygous mice. Helen Dietmar from Newcastle University talked about her discovery of MMP9 as potential biomarker of COMP-related multiple epiphyseal dysplasia (MED) and pseudoachondroplasia (PSACH), that may help in differential diagnosis of PSACH/MED and other COMPopathies in the clinic. The session closed with a presentation by Francesco Ramirez from Mount Sinai, talking about his recent study investigating the skeletal abnormalities of Marfan syndrome using tissue specific mouse models and explant cultures in order to tease out the effect of the interaction of perichondrium and/or tendon with the forming bone. Day 1 of the meeting closed with a formal note of thanks to John Couchman stepping down as the society’s chairman after 6 years of service, and an informal virtual online social.

## **Day 2.**

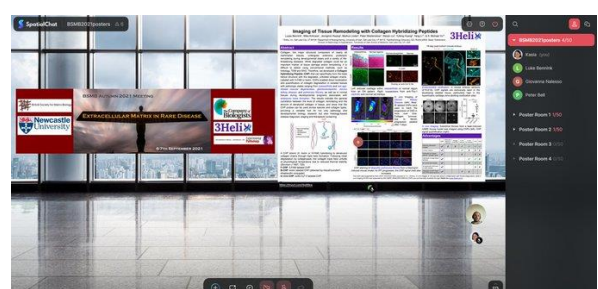
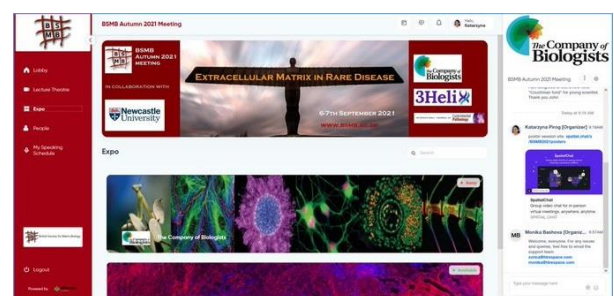
Day 2 of the BSMB 2021 Autumn meeting opened with a “Rare Disease Mechanisms” session and a presentation by Laurence Legeai-Mallet, who talked about the new therapeutic approaches being developed for achondroplasia. After a coffee and posters break Su Lwin from King’s College London talked about the emerging therapies for epidermolysis bullosa which including mesenchymal stem cells in allogeneic grafts and gene therapy. Emily Shorter from the University of Liverpool

then presented her PhD data identifying novel osteoarthritis associated genes using systematic meta-analysis and multi source information network, and looking at microRNAs, senescence and cell age in particular. Franziska Lausecker from the University of Manchester talked about detecting altered matrix signature in kidney ageing and disease using novel mass spectrometry approaches. The morning session closed with Alison Gartland from Sheffield University talking about purinergic signalling in osteosarcoma and primary bone cancers, and insights from cancer evidence in dinosaur bones and cancers in modern dog breeds.

After a lunch break, James Whitford introduced the BSMB Early Career Researcher Award and presented it to Giovanna Nalesso from the University of Surrey who then delivered the John Scott Lecture on her work on the role of Wnt signalling in osteoarthritis. In the following “Drug Repurposing and Patient Perspective” session, Rachel Lennon from the University of Manchester talked about her work on Alport syndrome, the matrisome of kidney disease and potential treatments. Tonia Vincent from Oxford University then talked about growth factor sequestration and losartan treatment of Marfan mouse models. Juliette Hughes from Edge Hill University presented data on histopathology of connective tissues in an alkaptonuria patient, and James Gallagher from the University of Liverpool talked about developing a therapy for alkaptonuria, highlighting the importance of drug repurposing in rare diseases and showing that nitisinone reverses alkaptonuria symptoms in mice and is the first effective treatment for any form of osteoarthritis. The meeting closed with a presentation of poster prizes by Katarzyna Pirog and Andrew Pitsilides, the new chairman of the BSMB. The two prizes for the oral presentations were awarded to

Emily Shorter and Helen Dietmar, and a prize for the best poster went to Franziska Lausecker.

Despite the meeting being in an online format, it facilitated lively scientific discussion and networking, especially at the poster session which was very well attended. The online social was an additional opportunity for a chat in an informal setting and was well attended by both junior and senior society members. The meeting was very well received, with attendees commenting on the importance of raising awareness of rare disease research and interactions beyond the scientific community. We’d like to thank IJEP, the Company of Biologists and 3Helix for sponsoring this meeting.





## Belgian Symposium of Tissue Engineering By Neil Marr

I was fortunate enough to attend the 8<sup>th</sup> Belgian Symposium of Tissue Engineering thanks to the support of the BSMB, and even more fortunate to attend this meeting physically. This two-day symposium was held at UCLouvain in Louvain-la-nueve; a stone's throw from Brussels. The programme put together was bursting with novelty, demonstrating how researchers have adapted to the challenges presented by the past two-years.

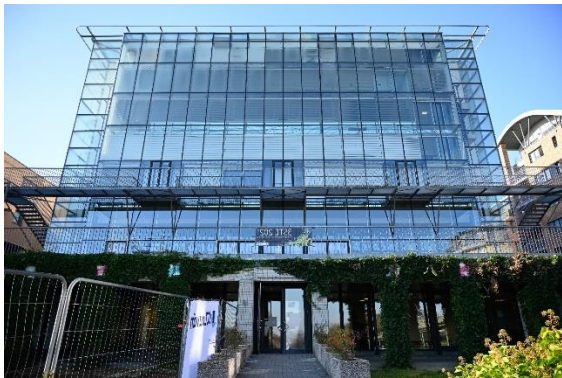


Figure 1 Aula Magna venue



Figure 2 Campus scenery (outside venue)

The conference itself was held in Aula Magna, designed by Phillipe Samyn, and initiated with keynote speaker Heinz Redl (LBG Center for Traumatology, Austria). Maria Olenic (KU Leuven) then gave an incredible topical talk on cultured and lab-grown meat, demonstrating the huge progress made and challenges presented for tissue engineers who are tackling the

climate crisis. In the afternoon, early career scientists shared excellent work on a number of topics, including contrast enhanced micro-computed tomography and porous scaffold design. However, the highlight of day 1 for me personally was delivered by Benoît Lengelé (UCLouvain), delivering a talk that Victor von Frankenstein himself could only dream of giving on tissue/organ allografts. In the evening, attendees were treated to a Japanese Taiko performance lead by BSTEs own Greet Kerckhofs (UCLouvain). My ears are still ringing even after two weeks!



Figure 3 Early bird catches the worm: morning session on day 1

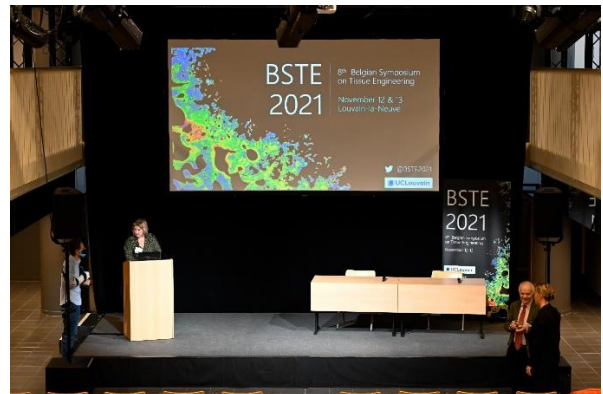


Figure 4 Stage

Day 2 kicked off with Peter Ponsaerts (University of Antwerp) and a number of short oral presentations, before an awesome talk from Aldo Boccaccini (University of Erlangen-Nuremburg, Germany). Boccaccini's work in bioactive glasses has had huge impact on tissue engineering; this talk was a true masterclass

in working towards 4D personalised therapies using scaffolds.



Figure 5 Benoit Lengele talk



Figure 6 Taiko performance

Moustapha Kassem (University of Southern Denmark & Copenhagen, Denmark) gave the afternoons keynote talk on skeletal stem cells, which was followed by further early career researcher talks on decellularised tissues for human nipple reconstruction and bio-engineered periosteum. The last keynote talk from Jan de Boer (University of Technology, Netherlands) was the conference highlight for me, as his work on demonstrating how surface topography can fine-tune the behaviour of cells. His video demonstrating how rat tenocytes behave in 3D on bioprinted surfaces was absolutely stunning. Yet the latest technology he shared was that of the TopoChip; a high throughput screening platform for study of cellular response to topographical designs. Looking to the future, Jan also highlighted

the benefits of machine-learning, discussing how a conceptual robot called Toby could, in future and in practice, help digitise experiments and reduce the need for hands-on experimental work. I am sure Toby will get a ton of job offers once he's built!

BSTE was closed with an awards ceremony, and a General Assembly which inducted new members into the society (including myself!). Given the conference finished on a Saturday afternoon, the rest of the weekend was spent enjoying what Belgium does best after science of course; beer and frites!



Figure 7 BSTE board delivers general assembly



Figure 8 Awards and thank-you to members

Finally, I want to thank the BSMB for its generous support, and also my fellow BSMB members, as attending this conference in person was also a celebration of our efforts to curb the COVID-19 pandemic. Merci!



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## News from the International Society for Matrix Biology

ISMB have a brand new website where you can find details of the mission of the Society, the benefits of membership and a calendar of matrix-related events around the world that are coming up over the next year: <https://www.ismb.org/>

This includes the upcoming Matrix Biology Europe meeting (MBE2022) to be held in Florence on 28-30th September, 2022 in the magnificent Palazzo degli Innocenti. Visit the meeting website for more information: <https://mbe2022.org/>

You can also find on the ISMB website details of the travel grants that the Society offers to member applications for which are now open.

Kim Midwood

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## Current BSMB Committee

Chair, Prof. Andrew Pitsillides  
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Honorary Secretary, Prof. Kim Midwood  
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Honorary Treasurer, Dr. Tom Van Agtmael  
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### Elected Members:

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# SEE YOU ONLINE VIA SURREY IN APRIL?!

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## BSMB Spring Meeting



### "Interactions between Lipids/Derivatives and the ECM: pre-clinical and clinical relevance"

Virtual meeting hosted by the University of Surrey,  
12<sup>th</sup> and 13<sup>th</sup> of April 2022

#### Speakers:

- Prof Robert Snelgrove (Imperial College, UK)
- Prof Sirio Dupont (University of Padua, Italy)
- Prof Giampietro Schiavo (UCL, London, UK)
- Dr Rami Hannoush (Genentech, USA)
- Dr Dawei Zhang, (University of Alberta, Canada)
- Dr Nicholas Davidson, (Washington University, USA)
- Dr Stephen Badylacks (University of Pittsburgh, USA)

***BSMB Medal Award: Prof Kathy Cheah,  
University of Hong Kong***

***Special guest: Dr Steve Cross, Science communication consultant***

Registrations will open on the 17<sup>th</sup> of January 2022



**REGISTRATION and ABSTRACT SUBMISSION  
OPEN ON JANUARY 17<sup>th</sup>**