Connective Issues:

special edition

BSMB Newsletter

BRITISH SOCIETY FOR MATRIX BIOLOGY

Registered Charity no. 281399 No. 93, September 2018

Contents

Editorial

Welcome to the September 2018 Newsletter!

Hope you all enjoyed the long, hot British summer. Having lived in Manchester for the last 15 years, I found it truly amazing to have 4 consecutive sunny days throughout the MBE 2018 conference!

In July 21st-24th 2018, BSMB proudly organized the MBE 2018 meeting in Manchester, which marked 50 years since the very first conference of European matrix biology societies (FECTS). As one of the local organizers, I am genuinely honoured to be involved in organizing such a prestigious event! To my mind, this fantastic meeting was a real scientific feast for the Matrix Biology field, with excellent world-class science, ample interactions between junior and senior matrix biologists, in a very friendly and enjoyable atmosphere. The meeting was well attended by 302 delegates from 23 countries spanning 5 continents, including representatives from almost all major matrix biology societies.

I would like to take this opportunity to thank the BSMB committee for entrusting us to organize the MBE. In the countdown to the meeting, we have received tremendous support from everyone on the committee. Moreover, the meeting wouldn't have been a success without the generous sponsorship from industrial suppliers, ISMB and ASMB. Thanks to the efforts of the fund-raising committee, BSMB was able to support a record number of bursaries to early career researchers (20 in total, including 5 international bursary recipients). Feedback from bursary awardees unanimously appreciated the wonderful opportunity and unique experience of a world forum on matrix biology. The conference was also kindly sponsored by the Manchester Convention Bureau and the Manchester City Council. The warm welcome speech from the Lord Mayor of the City of Manchester reflected the city's continuous support for science and education. Manchester University is the home of The Wellcome Trust Centre for Cell-Matrix Research, making it the highly appropriate host for such an important matrix biology event.

Organizing such a conference has never been easy, but thanks to the "Keep calm" and "We can do it" style of my co-host, Prof. Ray Boot-Handford, the process was much smoother and enjoyable. Looking back, I have to say that it was a truly rewarding experience. Now that the summer heat is fading away and the MBE 2018 has become history, I cannot wait to attend the next matrix biology gathering!

With best wishes to all!

Qing-Jun Meng

Local organizer of the MBE 2018 Manchester Conference

BSMB News

BSMB Spring 2019: joint meeting with Matrix Biology Ireland (MBI):

University of Liverpool, 8th - 9th April 2019

It is our great pleasure to invite you to attend this meeting in Liverpool. The meeting is organised by the British Society for Matrix Biology together with Matrix Biology Ireland, and will be hosted at the University of Liverpool. The conference will be held over one and a half days and includes 5 sessions covering the theme of ***"Stroma, Niche, and Repair".***

It will also feature the inaugural ***BSMB Medal Lecture***; awarded for outstanding contribution to Matrix Biology.

Organisers:
George Bou-Gharios - Liverpool
Dimitrios Zeugolis - Galway

Invited speakers:
Tim Johnson (Sheffield/UCB Biopharma)
Erik Sahai (The Crick, London)
Cian O'Leary (Dublin)
Michelle Peckham (Leeds)
Olga Piskareva (Dublin)
Peter Friedl (The Netherlands)
Fiona Watt (KCL, London)
Manus Biggs (Galway)
Rama Khokha (Toronto, Canada)
Colin Jahoda (Durham)
David Abraham (UCL, London)
Michael Schmidt (Liverpool)

BSMB Medal Lecture:
Kenneth Yamada (NIH, USA)

Early Bird registration and Abstract submission: The deadline is on 8th February 2019 (£80 students, £100 members or £130 non-members).

[Late registration: £100 students, £120 members, non-member £150].

For more details, please login to www.bsmb.ac.uk or http://www.mbi.ie

You can also follow us on…
Instagram: @matrixbiologyuk
Twitter: @BSMB1
Facebook: @BritishSocietyForMatrixBiology

More details below.

Mark your diary

BSMB Spring 2019 Meeting
Liverpool April 8-9 2019

BSMB Autumn 2019 Meeting
UEA September 9-10 2019

BSMB Spring 2020 Meeting
University of Surrey April 2020

Website update

Work is proceeding apace on the BSMB web site! The new version will be up and running before too long, but in the meantime if you need any information please contact the relevant committee members using the emails at the end of this newsletter:

- Spring meeting: George Bou-Gharios
- Membership: Tom Van Agtmael
- Bursaries: Qing-Jun Meng

Matrix Biology Europe 2018

Celebrating 50 years of FECTS Meetings

Manchester, 21st - 24th July 2018

Matrix Biology Europe 2018: Meeting report

compiled from reports by our bursary awardees: thank you all for your efforts!

Hannah Tomlin (Nottingham), Silvia Lecci (Newcastle), Jamie Louise Thompson (Nottingham), Adam Pickard (Manchester), Salvatore Santamaria (Imperial), Douglas Dyer (Glasgow), Saima Ahmed (Imperial), Michael Lockhart (Manchester), Lorenzo Ramos-Mucci (Liverpool), Jake Mills (Sheffield), Shaun Fell (GSK/Birmingham), Nan Yang (Manchester), Alan Godwin (Manchester), Peter Bell (Canada), Silvia Rosini (Manchester), Andrea Lolli, (Rotterdam, Netherlands), Christine Chuang (Copenhagen, Denmark), Aurélie Dobric (Marseille, France), Herimela Solomon-Degefa (Cologne, Germany) and Frank Gondelaud (Lyon, France).

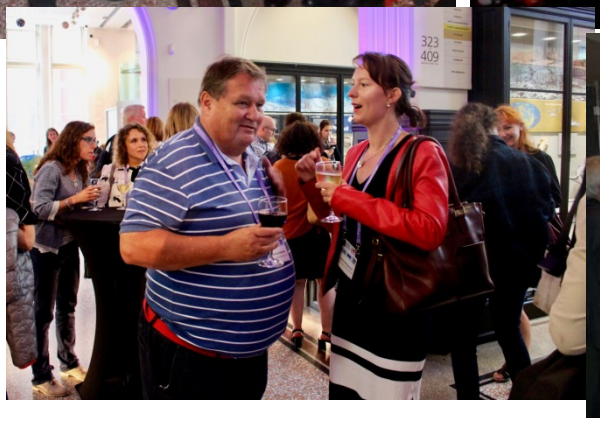
"It was a fantastic 3 day meeting at Manchester for MBE this year! The program was very well organised and consisted of many new and unpublished data".

"It was an incredibly valuable meeting and I am extremely grateful for the BSMB for providing me an International Bursary to enable me to attend this conference."

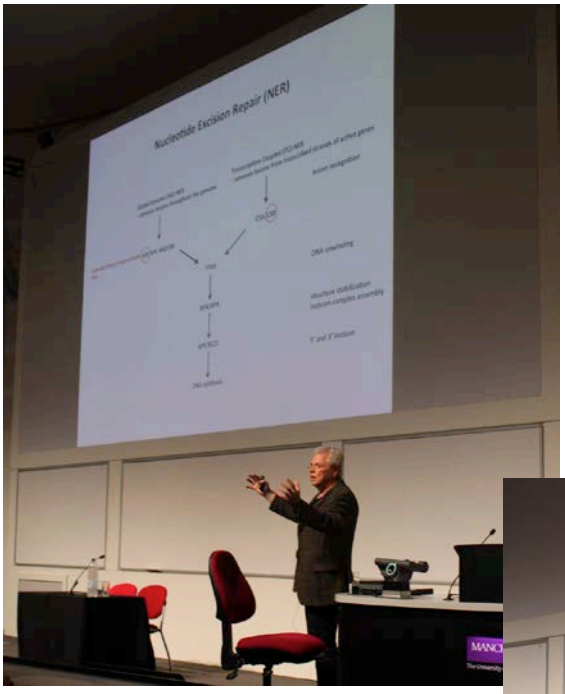
The meeting started with a fantastic opening lecture from Prof. Janine Erler on Saturday evening (21st July 2018) on a very sunny day. Her title was 'ECM remodelling during cancer progression'. ECM remodelling drives cancer progression and metastasis. Now cutting-edge, in situ decellularisation of tissues (ISDot) allows characterisation of whole organs whilst preserving basement membrane integrity and tissue structure. Recellularisation of ISDot tissues from primary or metastatic tumours with fluorescently-labelled cells to study them in the metastatic context is

also possible. The first high-resolution imagining of the metastatic niche with enhanced depth and clarity revealed holes and blebbing in collagen IV fibrils from metastatic sites. Mass spectrometry demonstrated primary tumour and metastasis specific ECM compositions, indicating this method as a promising tool to study ECM remodelling in homeostasis and disease.

Saturday evening was an unforgettable social gathering at the Manchester Museum, with a welcome address by the Lord Mayor of the City of Manchester.



The scientific session on Sunday was opened by Prof. Reinhard Fässler, who gave a mesmerising plenary talk on "The Kindlins and their functions". There are three members within the kindlin family, including kindlin-1, 2 and 3. The lab recently identified that kindlin-1 can protect the epidermis from UV damages, and loss of kindlin1 increases photosensitivity (skin redness), and tumour incidence. This is due to kindlin-1 promoting repair in UV-induced DNA lesions. Kindlin-1 harbors a nuclear localization signal and facilitates repair in the nucleus. Moreover, nuclear kindlin-1 promotes UV-induced survival of keratinocytes. Mechanistically, kindlin-1 binds to its partners cullin-4A/4B, which are multi-protein RING E3 ligase complexes (CRL), resulting in inhibited CRL4 activity.



Prof. Farshid Guilak presented another mind-blowing plenary talk on "Engineering new biologic therapies for arthritis". Articular cartilage is frequently injured by trauma or arthritis, with inadequate treatment options. In the search for novel disease-modifying treatments, Prof. Guilak's work focuses on the application of advanced gene-editing methods such as CRISPR-Cas9 to manipulate cell behavior. This system has been successfully applied to engineer inflammation-resistant tissues by deleting mediators of inflammation or by rewiring cellular circuits so that cells exposed to an inflammatory environment will produce anti-inflammatory compounds. This can lead to the development of "smart" tissue engineered constructs that sense and respond to the microenvironment in a controlled manner, with great therapeutic potential for cartilage repair.

In the "Stem Cells and Matrix Engineering" workshop, Prof. Gerjo van Osch gave a fascinating talk that highlighted behavioural heterogeneity of mesenchymal stem cells (MSCs). She demonstrated that MSCs harvested from different sources e.g. bone marrow (bone-lining or perivascular area) or synovium have different cartilage-forming potentials, despite being phenotypically similar in culture and expressing similar MSC markers. Two common issues with MSC culture in vitro are the loss of stemness and decreased proliferation rates over time. Gerjo has shown that by adding

Wnt3a to MSCs, cells can be expanded for longer periods of time and have improved chondrogenic capacity. Furthermore, Wnt3a reduces the number of senescent cells, by a proposed mechanism involving the prevention of senescence paracrine factor signalling.

In the Fibrillar/Matricellular Signalling workshop, Laurent Duca presented work investigating elastin derived peptides (EDPs) and their production due to aging. Degradation of elastin, a long half-life protein, produces EDPs. EDPs bind to the elastin receptor complex (ERC) which consists of the elastin binding protein, protein/cathepsin A (PPCA) and neurominidase-1 (Neu-1). Binding of EDPs to the ERC, activates Neu-1 which has been shown to contribute to atherosclerosis. V14 is an engineered peptide derived from the EBP and can bind the EDP, preventing EDP interactions with the ERC, and thus decreases atherosclerosis. These data allow for the revisiting of the age-related cardiovascular disease with EDPs in mind.

After a postprandial group photo was taken, the huge crowd walked swiftly back to the Sunday afternoon session, which saw the ground-breaking "Rhythms and Matrix Dynamics" workshop, an entire session focusing on clock timing-related cell-matrix research. Prof. Karl E Kadler discussed the regulation of the secretory pathway by the circadian clock. The pathway for protein secretion consists of the endoplasmic reticulum, Golgi cisternae and transport vesicles that the cell uses for protein synthesis, post-translational modification and protein translocation. The circadian clock controls key proteins in this pathway in order to create a 24-hour rhythmicity in protein secretion. For example, the circadian clock controls the collagen I secretion through its transcriptional and translation control on the ER-ribosome docking, Tango1-dependent ER export, phosphodiesterase-dependent Golgi-ER retrograde transport of Hsp47 (a collagen molecular chaperone), and Vps33b-dependent post Golgi export.

As part of this workshop, Prof. Kazuhiro Yagita presented the outcome of a series of studies probing the correlation between the circadian clock and cellular differentiation. This work showed that key components of the circadian clock (e.g. CLOCK) are post-transcriptionally suppressed in pluripotent stem cells via the action of small number of mi-RNAs; and that consequently, mouse embryonic stem cells did not display circadian oscillations. In contrast,

cells differentiated in vitro for more than 15 days displayed a steady clock, and disruption to this circadian rhythm was sufficient to reprogram cellular differentiation, resulting in kidney tumourigenesis.

In the “ECM Microenvironment, Adhesion and Cell Fate” workshop, Prof. Christa Maes (KU Leuven, Belgium) presented on "Osteolineage Cells" where she described the use of osteoblast tracing models to identify how endogenous osteogenic progenitor cells are recruited and activated into functional osteoblasts as well as the importance of their spatial-temporal localization and their interaction with endothelial to improve bone regeneration and particularly, therapies for osteoporosis.

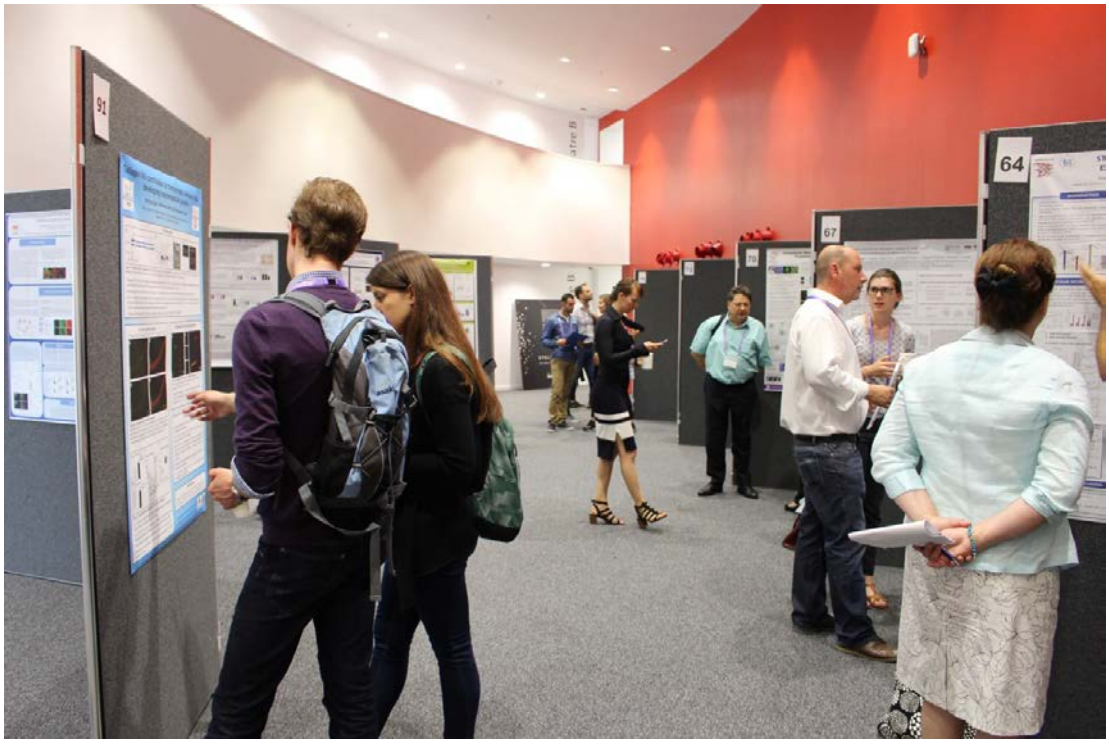
The ISMB’s 2018 Rupert Timpl Award was awarded to Dr. Alexandra Naba for her seminal research aimed at deciphering the role of the extracellular matrix during tumor progression. Dr. Naba developed the online platform “Matrisome Project” for updated annotations of ECM proteins. She presented recent findings regarding the differences between the ECM of human carcinoma xenografts and the ECM of the microenvironmental niches from the recipient mice. Dr. Naba and collaborators found that the secreted protein SNED1, annotated in the ECM signature of the highly metastatic breast cancer LM2, is a novel metastatic promoter. Ultimately, Naba showed preliminary data anticipating a relevant role of SNED1 in the ECM organisation during murine development.

Alexandra Naba receives the 2018 Rupert Timpl Award, presented by the Chair of the ISMB Liliana Schaefer.

Monday morning was filled with exciting talks centring around “Pathobiology of, and Therapeutics for, Fibrosis”, a session kindly sponsored by the ASMB.

The ECM and related endotypes of lung fibrosis: From Man to Models. Andy Blanchard (GSK) depicted some of the new treatment approaches related to patients affected by Idiopathic Pulmonary Fibrosis (IPF). Some new IPF therapies are failing in phase II and III because of the heterogeneity in patients, whose source can reside in the relationship between ECM turnover and IPF progression. A multiple-approach investigation is described, involving the right biological mechanism at the base, the patients and the development of robust preclinical assays. Interesting data showed IPF patients stratification through bioinformatics and the identification of ECM neo-epitopes, such as Pro-C6 and Pro-C3 reported as examples, with the aim to separate and therefore develop more targeted treatments for different IPF populations.

The final talk of this session was delivered by Professor Thomas Barker. This talk discussed post-translational modifications of fibronectin as therapeutic targets for fibrosis. Professor Barker showed that fibronectin fibres are capable of undergoing glutathionylation and this leads to the formation of fibronectin fibrils that are less rigid. Further to this, glutathionylated fibronectin is 'primed' to engage with integrin αvβ3. Professor Barker's talk perfectly concluded a fantastic session that highlighted several new therapeutic targets in fibrosis.



In the "Mechanisms of Matrix Disease" session, Prof. Mike Briggs presented "New therapeutic targets in genetic skeletal diseases". Genetic skeletal diseases (GSDs) are a family of heterogeneous disorders affecting the development of the skeleton. Although they are individually rare, their overall prevalence is comparable to that of cystic fibrosis. So far, no therapies are available for GSDs. Prof. Briggs aims to identify shared mechanisms behind GSDs, which are potentially available to pharmacological treatment. One of such mechanisms is the accumulation of misfolded mutant proteins in chondrocytes that causes prolonged stress of the

endoplasmic reticulum (ER) and, eventually, apoptosis. Therefore, GSDs may be targeted by molecules that relieve the ER from its burden of unfolded mutant proteins.

Highlights of the "Immunology/Matrix Interface" workshop included talks from Prof. Liliana Schaefer (Goethe Univ, Germany): 'Small leucine-rich proteoglycans in inflammation: two sides of the coin'. In this fascinating talk Prof. Schaefer described her group's recent work on proteoglycans during inflammation. Specifically, biglycan acts as a damage signal during the immune response via interactions with TLR2 and -4, resulting in the production of TNF and chemokines. Soluble biglycan was sufficient to trigger sterile inflammation due to its high affinity interaction with TLR 2. Furthermore, over-expression of biglycan in vivo triggers neutrophil recruitment to the kidney via the myd88 and TRIF pathways, mediated recruitment of Th1 and Th17 cells, and reduced IL-1 synthesis. This talk highlights the role of proteoglycans during the immune response.

Another highlight was from Prof. Judi Allen, University of Manchester, 'Regulation of Matrix by Type 2 Cytokines: Learning from Helminths'. Judi Allen described the processes that occur during the Th2 skewed immune response to helminth infection of the lung and revealed a mechanism that is vital for lung injury repair. Judi described her work that focused on the activation of macrophages by this type 2 response, leading to the induction of YM1 expression, which is also strongly associated with asthma and COPD. YM1 was demonstrated to drive the expression of resistin-like molecule alpha (RELMα) in lung epithelial cells, where it is vital for the rapid repair following lung injury by inducing Lysyl Hydroxylase 2 expression, which is required for collagen fibril formation and ultimately repair.

The final workshop was on "Matrix Mechanobiology", which was opened by Prof. Viola Vogel with a comprehensive focus on 'Mechanobiology of ECM fibers in vitro and in vivo.' Prof. Vogel's work has shown that epitopes of ECM fibres can be destroyed by tension, which is critical when analysing force-bearing networks. The Vogel Lab created a tool to analyse fibre stretching using a bacterial 'nano-adhesive' peptide with affinity to relaxed sites of fibronectin. This tool was used to analyse a cryosection of tumour tissue which, for the first time, showed the tensile state of fibronectin and has potential application in diagnosis and therapeutics.

Prof. Maria Dolores Martin Bermudo discussed how the balancing of contractile forces across the basal surface of epithelial cells is important in maintaining proper organ shape during morphogenesis. Knocking out β-integrin in follicular epithelium of drosophila ovary prevented cell adhesion to the basement membrane and caused dysregulation of acto-myosin contractility leading to mutant cells being in an over contractile state. These mutant cells could not grow on their basal side and had less stiff plasma membranes. Live cell imaging showed how these mutant cells were then removed from the basal surface by wild type cells in a mechanism of mechanical competition.

Concluding the Monday session was the very special BSMB Fell Muir Award, which was received by Prof. Ray Boot-Handford, in recognition of his highly regarded research achievements and life-time dedication to the matrix biology field and to the BSMB. Ray gave a fascinating lecture on how Collagen X mutations effects on metaphyseal chondrodysplasia type Schmid (MCDS). Type X Collagen-based extracellular matrix is secreted by chondrocytes during endochondral ossification. Mutations in COL10A1 gene cause MCDS. The mechanism underlying mutates Collagen X proteins intracellular accumulation is identified by transgenic mice studies. The ER stress increasing blocks the hypertrophic chondrocytes differentiation program. The use of Carbamazepine (CBZ) as a treatment reduces ER stress by stimulating intracellular Collagen X mutated degradation. Bone growth enhancements due to hypertrophic chondrocytes differentiation improvement highlight here the importance of CBZ as a treatment strategy to decrease clinical severity of MCDS.

Photo above: **Ray Boot-Handford receives the 2018 Fell-Muir Award, presented by the Chair and secretary of the BSMB, John Couchman and Kim Midwood.**

The conference dinner was held on the Monday evening at the Manchester United Old Trafford football ground in a dining room overlooking the pitch!

Tuesday morning was the final of the Dick Heinegård Young Investigator Award, where 5 of the most promising young matrix biologists from across Europe presented their findings in a special conference session, with the winner being judged by an international panel of experts. This time two winners were announced, reflecting the very high quality of science of the session as a whole. Dr. Raphael Reuten representing The German Society for Matrix Biology (from BRIC, University of Copenhagen, Denmark) and Dr Karl Emil Tykesson representing the Swedish Connective Tissue Society (from Lund University, Sweden) presented on “Modulating the physico-mechanical properties of basement membranes through the extracellular-matrix protein netrin-4” and “Crystal structure of dermatan sulfate epimerase 1 and its interaction with dermatan 4-sulfotransferase 1", respectively. Congratulations to Raphael and Emil, and all the other YIA nominees, René Brüggebusch Svensson (The Danish Soc. Matrix Biology), Andrea Lolli (The Dutch Society for Matrix Biology) and Ching-Yan Chloé Yeung (The British Society for Matrix Biology) for a really wonderful session. Finally, following this session the poster prizes were awarded: congratulations to Ed Horton, Wilson Chan, Alex Langford-Smith, Mehdi Lienard, Mukti Singh, Victor Garcia-Martinez and Yasemin Ustun!

Photos**: Dick Heinegård Young Investigator Award nominees (left) and winners (right) with John Couchman and Kathy Cheah. BSMB Poster prize winners with John Couchman, and chair of the BSMB Bursary Committee, Qing-Jun Meng (bottom).**

Víctor G Martinez @VctorGMartinez2 · Jul 24
#MBE2018 confirming again that the Matrix Biology field is loaded with exiting science and great people 👇. It was amazing. And many thanks for the poster prize!!

Rachel Lennon @RLWczyk · Jul 24
Rounding up a superb meeting #mbe2018 great basement meml @TomVanAgtmael

Michael Lockhart @MikePLockhart · Jul 23
I think it's time to crack this out. Congratulations to Ray for being awarded the Fell-Muir award. @wtccmr @IntSocMatBio #mbe2018


ng of their own work by The Wellcome Trust, The Medical Research ıcil, and The Arthritis and Rheumatism Council. The authors would be grate- they could be notified of any inaccuracies or omissions; the nature of the means that these are inevitable but they can be corrected in future editions. e send such correspondence to the Editor, Extracellular Matrix FactsBook, emic Press, 24–28 Oval Road, London, NW1 7DX, UK.

Karl Kadler @KarlKadler · Jul 22
#MBE2018 matrix conference at @UoMNews in full flow. Delegates from 38 countries and 6 continents discuss matrix biology. @BSMB1 @wtccmr @wellcometrust @rubicon_network @IntSocMatBio

DSMB @DSMB_dk · Jul 24
What a nice turn out of members from DSMB Denmark for the #MBE2018 meeting (missing 2 or 3 in the pic!). A big big thank you to John, Ray and Qing-Jun for a wonderful meeting - we're all motivated and pumped again for more science ahead @BSMB1 @ccstorytime

Judi Allen @ProfJudiAllen · Jul 22
My head is spinning. Going from a mucosal immunology meeting(my comfort zone) to matrix biology #MBE2018. At least I could follow @KarlKadler's great talk. Learning loads.

Conor Sugden @conorjsugden · Jul 23
#MBE2018 Getting tired running between theatre A and B for immunomatrix / mechanobiolgy sessions, great talks+data at both!

Antonella Forlino @aforlino · Jul 23
#MBE2018 poster day

Tom Van Agtmael @TomVanAgtmael · Jul 22
Fantastic talk by Alexandra Naba @NabaLabUIC at #mbe2018 on the matrisome. Worthy recipient of the Rupert Timpl Award of the @IntSocMatBio well deserved

Paul Atherton @PaullAtherton · Jul 22
Reinhard Fässler shows kindlin1 localises to both FAs and the nucleus, with a role for maintaining repair of UV-induced DNA damage. Question remains as to how it switches between the 2 locations #mbe2018

Naba Lab @NabaLabUIC · Jul 22
#mbe2018 - Day 2 : @Farsh_G @WUSTLmed on new therapies for #Arthritis

ISMB @IntSocMatBio · Jul 23
John Couchman and Liliana Schaefer thank to Ray Boot-Handford and Qing Jun Meng for organising an outstanding, international #MBE2018 for the 50th anniversary of FECTS! @BSMB1 @DSMB_dk @amsocmatbio

Chloé Yeung @ccstorytime · Jul 23
A well earned drink for Fell-Muir Award recipient Ray Boot-Handford, @MD_Briggs , Tim Hardingham and Dave Thornton from @wtccmr @Official @IntSocMatBio @BSMB1 #MBE2018

Dr Neil Turner @Doctorner · Jul 23
Great to catch up with @MJ_Humphries at #mbe2018 today - nearly 30 years on from my first foray into #ECM. I'd like to think neither of us have changed a bit!

Farshid Guilak @Farsh_G · Jul 22
Prof Qing-Jun Meng launching a session on clock genes in ECM at #mbe2018 @IntSocMatBio. Truly unique to have an entire session on this topic at a matrix meeting!

Martin Humphries @MJ_Humphries · Jul 23
Andy Blanchard (GSK) presents on IPF stratification based on ECM p epitopes. PROFILE cohort shows collagen metabolites can predict pr rate (with Nordic Bioscience). #MBE2018

DSMB @DSMB_dk · Jul 24
Well done to all the Presenters for the Dick Heinegård YIA - great session and full of fantastic science! @ccstorytime @BSMB1 #mbe2018

Naba Lab @NabaLabUIC · Jul 24
#mbe2018 #NextGenECM @tranejoan @jan_gebauer @adambyron @NabaLabUIC

ASMB @amsocmatbio · Jul 23
Our president @tsporct kicks off the @amsocmatbio-sponsored session at #mbe2018, great speaker line-up, stay tuned for live updates!

Michael Briggs @MD_Briggs · Jul 23
In #MatrixBiology world your collaborators & colleagues are also your mates #MBE2018 - even those on soft drinks :)

Joan Chang @tranejoan · Jul 24
Fascinating talk on non-enzymatic disruption of #basementmembrane by Raphael @ErlerLab #mbe2018 #MatrixBiology #NextGenECM

Naba Lab @NabaLabUIC · Jul 23
Fantastic #mbe2018 conference dinner at Manchester United stadium @OldTraffordReds ! 7 countries were represented Table 17! 🇫🇷🇺🇸🇩🇪🇩🇰🇮🇪🇬🇧🇦🇺🇪🇺@BSMB1 @IntSocMatBio @MatrixBioANZ @SFBMEc @amsocmatbio @DSMB_dk @Matrixbiologie #ILoveScience #TheMatrixIsEverywhere

Hamill lab @LaNtsandLaminin · Jul 23
Conference dinner and new connections made. #mbe2018

MBE 2018 GROUP PHOTO

Thank you to everyone who came to Manchester and made MBE 2018 such a fantastic event!

And for your next BSMB organized Matrix Biology meeting look no further than Liverpool, April 2019…

BSMB MEETINGS IN 2019

BSMB Spring 2019 Meeting

Liverpool University
April 8-9th 2019

Stroma, Niche, Repair

Organised by George Bou Gharios together with Matrix Biology Ireland**.**

Young investigators: Selected abstracts from posters will be given 10 mins presentation to encourage younger investigators to participate in the meeting.

Social events: Wine Reception & Poster Viewing: Wine, beer and nibbles with posters on Monday evening (8th April, 6.15 -7 pm).

Conference dinner: A 3-course conference dinner will be held at 7.45pm, cost £50 (venue to be decided). After dinner, the famous Cavern is only minutes away.

Bursaries & prizes: Presenter and reporter bursaries will be available, and there will be prizes for poster and oral presentations.

BSMB members will benefit from a reduced registration fee.

Early Bird registration and Abstract submission deadline is on 8th February 2019 (£80 students, 100 members, non-member £130). Late registration (£100 students, £120 members, non-member £150)

Accommodations: Several hotels in the vicinity of the University have been reserved on first come first served basis. Hallmark Inn www.hallmarkhotels.co.uk
quote "BSMB spring 2019" £69 B&B for single and £79 B&B for double room.

PROVISIONAL PROGRAMME

Monday April 8th

11.00-12.40 REGISTRATION: University of Liverpool Central Teaching Hub

12.45-1.00 OPENING remarks
Welcome and Introduction
George Bou-Gharios (Liverpool)

Horizon Scanning in the Extracellular Matrix Biology, David Abraham (UCL, London)

1.00-2.00 SESSION 1
STROMA in Health and Disease

Chair: Tim Johnson (Sheffield/UCB Biopharma)

1.00-1.30 Peter Friedl (The Netherlands)
"3D tissue and cell jamming transitions in collective cancer progression"
1.30 -2.00 three short presentations from posters
2.00-2.30 Michael Schmidt (Liverpool)
"Regulation of liver fibrosis by macrophage"

2.30-4.00 Tea and Coffee
(Poster and Supporter stand viewing)

4.00-4.30 SESSION 2 NICHE- Microenvironmental regulator of cell behavior
Chair: Kim Midwood (Oxford)

4.00-4.30 Erik Sahai (The Crick, London) "Generation and maintenance of the cancer-associated fibroblasts"
4.30-5.00 Short Presentations from abstracts
5.00-5.30 Fiona Watt (KCL, London) "Functional heterogeneity of human skin fibroblasts"

BSMB Medal Lecture
Chair: John Couchman

5.30-6.15 Kenneth Yamada (NIH, USA) "Dynamic Cell-Matrix Interactions in 3D Cell Migration and Organ Morphogenesis"

6.15-7.45 Drinks Reception
(Poster and Supporter stand viewing)

Conference Dinner (Venue to be announced)

Tuesday April 9th

9.00-10.30 SESSION 3
MBI Sponsored Session
Innovative material science to regenerate, reconstruct and interface with tissues
Chair: Dimitrios Zeugolis (Galway)

9:00-9.20 Manus Biggs (Galway) "Developing the next generation of biocompatible and adaptable material platforms-beyond nanobiology"
9:20-9.30 Short Presentation from abstracts
9:30-9.50 Cian O'Leary (Dublin) "Engineering extracellular matrix analogues to model the epithelial Interface in 3D: prospects for developing novel in vitro models and tissue regenerative medical devices"
9:50-10.00 Short Presentation from abstracts
10:00-10.20 Olga Piskareva (Dublin) "Reconstruction of Metastatic Tumour Microenvironment Using Collagen-Based Scaffolds"

10:30-11.00 Tea and Coffee
(Poster and Supporter stand viewing)

11.00-1.00 SESSION 4
Repair, regeneration, and the cytoskeleton organization
Chair: Kevin Hamill (Liverpool)

11:00-11.30 Colin Jahoda (Durham)" Therapeutic tissue engineering Lessons from developmental biology"
11:30-12:00 Short Presentations from abstracts
12.00-12;30 Michelle Peckham (Leeds) "Understanding the role of MEGF10 in skeletal muscle stem cells"

1.00 – 2.00 Lunch – Venue: University of Liverpool – Teaching Hub.

2.00-3.30 SESSION 5
Tissue development, homeostasis, remodeling and fibrosis
Chairs David Abraham (UCL)

2:00-2.30 Rama Khokha (Toronto, Canada)"Metalloprotease inhibitors regulate stem cell niches"
2:30-3.00 Short Presentations from abstracts TBC
3.00-3.30 Tim Johnson (Sheffield/UCB Biopharma) "Transglutaminases in tissue scarring and fibrosis"

3.30-4.00 Presentation of Prizes

Close of Meeting

BSMB Autumn 2019 Meeting

University of East Anglia
September 9-10th 2019

Cell adhesion networks in health and disease

Organised by Stephen Robinson

Bursary News

Dear BSMB members,

I am writing as the Chair of the BSMB Bursary Committee to promote the BSMB bursary scheme, which is to encourage early career (non-tenured) BSMB members to attend meetings relevant to matrix biology. With the BSMB website currently under re-development, I would like to remind you of the application process, as well as highlighting a few key facts:

Several types of bursary are offered:
BSMB bursaries: Conference Presenter | Conference Reporter – to attend one of the biannual BSMB meetings.

MBE/ASMB bursaries – to attend meetings organised by Matrix Biology Europe (MBE) or the American Society for Matrix Biology (ASMB)

Other bursaries – to attend other national and international meetings to present work relevant to matrix biology.

For all types of BSMB bursaries:

- Applicants should be non-tenured scientists, although preference will be given to those at the early stages of their career (ie PhD students or up to 6 years post-doc). In the case of application numbers exceeding available bursaries, the quality and impact of the work to be presented together with previous record of BSMB bursary support and attendance of BSMB meetings will also be taken into account.
- Completed application form with supervisor's recommendation, together with one-page curriculum vitae, should be sent to Qing-Jun Meng, Chair of the BSMB bursary committee (qing-jun.meng@manchester.ac.uk).
- The application should be accompanied by a copy of the abstract to be presented at the meeting (except for the Reporter Bursaries, see below).
- Bursaries will be paid by the BSMB Society Treasurer Tom Van Agtmael (tom.vanagtmael@glasgow.ac.uk) after the meeting, upon presentation of receipts.

- Applications will only be considered if they are submitted on a current Bursary form appropriate to the categories listed below. These forms will be available on the new BSMB website in due course).
- The applications will be reviewed rapidly by the Committee and applicants will be informed of the outcome in advance of the meeting registration deadline.

For bursaries to attend BSMB Annual Meetings:

- The qualifying BSMB membership period is 84 days (to the first day of the meeting). Membership subscription status should be up-to-date at the time of sending in the application.
- The deadline for receipt of bursary applications will be noted on the meeting information pages of the website.
- The maximum amount of a bursary is at £250.
- There are two types of bursaries: the Presenter Bursary (given to BSMB members who are presenting their own research data at the meeting) and the Reporter Bursary (given under the condition that the recipient participates in the production of a short report of the meeting).

For "other meetings" within or outside the UK to present work relevant to matrix biology:

- The qualifying BSMB membership period is 1 year. We will consider applications for these awards on a rolling basis all year round.
- The amount of the award depends on the location of the meeting, and will be up to £150 for UK meetings and £400 for meetings elsewhere in the world.
- Applicants must be contributing a poster or a talk, AND a short meeting report will be expected, which will be circulated in the BSMB newsletter and posted on the BSMB website. The meeting report should be submitted within 1 month of the end of the meeting.
- The work described in the abstract must be novel and of a quality that would reflect well as a BSMB-supported contribution. No applicant will receive more than one of these awards per calendar year.
- No applicant will receive more than three of these awards.
- Bursaries will only be considered if they are submitted on a current Bursary form (other meetings).

For bursaries to attend MBE and ASMB meetings:

- These meetings are held every two years, BSMB members are encouraged to attend.
- For MBE/ASMB meetings, the qualifying membership period is 6 months.
- The deadline for receipt of bursary applications will normally be 6 months before the meeting opens.
- The maximum bursary amount is at £500 for MBE and £600 for ASMB.
- Applicants must be contributing a poster or a talk. The work described in the abstract must be novel and of a quality that would reflect well as a BSMB-supported contribution.
- Applicants must participate (ideally together with other bursary recipients) in producing the written report of the conference for posting on the BSMB website.
- No applicant will receive more than three of these awards.
- Bursaries will only be considered if they are submitted on a current EuMB/ASMB bursary form.

Please note: To be eligible for a bursary to attend MBE/ASMB meetings or "other meetings", the applicant must have attended at least one BSMB annual meeting. Therefore, I would advise PIs to encourage your new students/post-docs to: 1) join the BSMB; 2) apply for a BSMB meeting bursary (Presenter or Reporter) to attend at least one BSMB annual meeting.

We look forward to receiving many applications to the above bursaries.

Qing-Jun Meng

Current BSMB Committee

Chairman, Prof. John Couchman
University of Copenhagen;
john.couchman@bric.ku.dk

Honorary Secretary, Prof. Kim Midwood
University of Oxford;
kim.midwood@kennedy.ox.ac.uk

Honorary Treasurer, Dr. Tom Van Agtmael
University of Glasgow;
tom.vanagtmael@glasgow.ac.uk

Elected Members:

Prof. Qing-Jun Meng
University of Manchester;
Qing-Jun.Meng@manchester.ac.uk

Dr. James Whiteford
QMUL, London;
j.whiteford@qmul.ac.uk

Prof. George Bou-Gharios
University of Liverpool;
G.Bou-Gharios@liverpool.ac.uk

Dr. Giovanna Nalesso
University of Surrey;
g.nalesso@surrey.ac.uk

Dr. Stephen Robinson
University of East Anglia;
Stephen.Robinson@uea.ac.uk

Prof. Stephanie Dakin
University of Oxford;
stephanie.dakin@ndorms.ox.ac.uk

Prof. Jerry Turnbull
University of Liverpool;
J.Turnbull@liverpool.ac.uk

Co-opted Members:

Prof. Jo C. Adams
University of Bristol;
jo.adams@bristol.ac.uk

Laura Collins
Student rep, University of Oxford;
laura.collins@lincoln.ox.ac.uk

Dr. Michal Dudek
Post Doc Rep, University of Manchester;
michal.dudek@manchester.ac.uk

SEE YOU IN LIVERPOOL NEXT APRIL!

REGISTRATION and ABSTRACT SUBMISSION OPENS JANUARY 2019