

ISMB NEWSLETTER 21 March 2015

Editors: Barbara Brodsky and John Ramshaw



From the President's Desk

The ECM field continues to evolve with significant impact on several other research areas, including human genetics, stem cell and cancer biology, and bioengineering, just to name a few. Indeed, ECM biology is increasingly becoming integrated into the larger new concept of tissue biology in which dynamic interactions between ECM components, resident cells and soluble biochemical signals specify organ formation, integrity and function. As result of this new view of ECM research, there is more than ever before a need for the ISMB to help the

expansion of our field by co-sponsoring multidisciplinary meetings that provide the forum for new collaborations and research directions, and by supporting promising young investigators through travel fellowships to attend and present their work at national and international ECM meetings. To achieve these highly meritorious goals, the ISMB relies exclusively on the scientific and financial support of its members. Scientific support includes our publishing high quality studies in the societal journal Matrix Biology; financial support requires our timely renewal of the ISMB membership. Additionally, we should all continue to be proactive in donating time to administrative and educational activities of our society, attracting new blood to our field and recruiting new ISMB members. Under the previous leadership of Shireen Lamandé, we have witnessed a remarkable restructuring of national and continental societies and the emergence of new ones. We welcome and support these long overdue changes whose continued implementation constitutes the principle mandate of my presidential tenure. Special thanks to the editors of this newsletter for keeping us abreast of the latest research news and scientific initiatives in the ECM field, to the ISMB Council members for their invaluable contributions and last but not least, to our Secretary/Treasurer David Hulmes for making the society run smoothly (and be financially sound, too).

Checco Ramirez

President ISMB (francesco.ramirez@mssm.edu)

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REMEMBRANCES

In Remembrance of those in our extracellular matrix community who have died recently, remembering and celebrating the lives and contributions of Steve Krane and Mel Glimcher



Stephen Krane, 1927-2015

The matrix biology community is saddened to learn of the loss of Dr Steve Krane M.D., a founder member of ISMB and one of the greats in the field, on January 19, 2015. Below are tributes to Steve's life and work by Mary and Steve Goldring, and by Michel van der Rest.

We are sad to report the passing of long-time member, Stephen M. Krane, M.D. at the age of 87 on Jan. 19 after a long illness. Steve was a well-known researcher, scientist, and a mentor to many of us in the field of matrix biology, but also in the bone and rheumatology fields. After receiving both his undergraduate and medical degrees from Columbia University and serving in the U.S. Navy at the end of World War II, he was an intern in Medicine at the Massachusetts General Hospital (MGH). After a research fellowship in biological chemistry at Washington University in St. Louis, he returned to the MGH as Chief Resident. Through his more than 62-year tenure, he served as the

head of the Arthritis Unit and Arthritis Research Laboratory at the MGH and as Persis, Cyrus and Marlow B. Harrison Distinguished Professor of Clinical Medicine and was the first Master of the Walter Bradford Cannon Society at Harvard Medical School. His early research addressed thyroid endocrinology, and then spanned bone biology and metabolic bone disease to inflammatory mechanisms in rheumatoid arthritis and other joint diseases. He is best known to ISMB members for his work on collagenase and collagen synthesis and the mechanisms of tissue degradation in genetic and acquired diseases. PubMed lists 191 papers published during his career.

In the MGH history book, *Something in the Ether*, he is recognized for establishing rheumatology as a true scientific discipline at the MGH and is quoted as stating humbly that: 'In rheumatology during my time, we had good people and discovered some interesting things. We were looking for how joints get destroyed in rheumatoid arthritis and bone disease, and we discovered the enzymes that are involved in breaking down the joint structure, collagenases. At the time it was a big discovery.'

He received numerous awards over the course of his career, including an honorary medical degree from the University of Geneva, Switzerland and the William F. Neuman Award from the American Society for Bone and Mineral Research. He was a Guggenheim Fellow, a fellow of the American Academy of Arts and Sciences, and recipient of several other awards, including the Heberden Medal (London), and the Distinguished Investigator Award of the American College of Rheumatology.

Among his devoted colleagues who worked with him directly were Edward (Ted) D Harris, Jr., Melvin Glimcher, Jean-Michel Dayer, Ed Amento, and Steven and Mary Goldring. We all would attribute to him changing the course of our careers and instilling in us high standards of scientific integrity. All those who worked with him will recall his astounding memory, his sense of humor, and his quick wit. His love of learning was exemplified by the stacks of journals, manuscripts, correspondence, and notebooks on his desk, chairs, tables, and sofa in his office with a sign above it all reading "A NEAT DESK IS THE SIGN OF A SICK MIND."

He is survived by his sons David, Peter, Ian and Adam and their families, including 7 grandchildren, and was predeceased by his wife, Cynthia. A celebration for both Stephen and Cynthia will be held at a later date. His obituary can be viewed at www.levinechapel.com.

Contributed by Mary and Steve Goldring

Stephen M. Krane M.D. (1927-2015), a great scientist and a great friend.

It is with great sorrow that the Matrix Biology community has learned that Steve Krane passed away on January 19 after a long illness and a little more than a year after his wife Cynthia, well known to many of us, had also passed away.

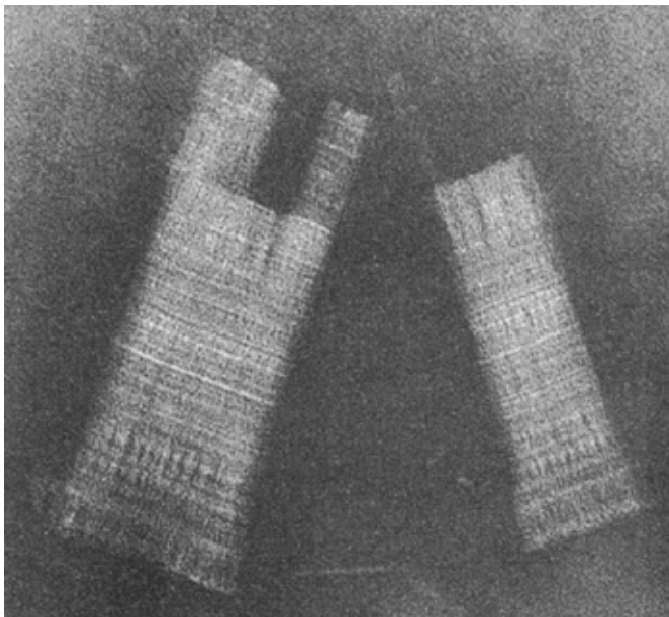
Steve was a very inspiring scientist, making a close link between the clinical questions and the most basic research. The understanding of all the agents and parameters involved in pathological degradation of the matrix has been at the heart of his scientific career in a direct relationship of course with his clinical duties as a rheumatologist. He has been at the heart of many of the major contributions that the Boston school in extracellular matrix biology has made. The keywords linked to Steve Krane's publications are collagenases, matrix metalloproteinases, interleukin, parathyroid hormone, rheumatoid arthritis, osteoarthritis, Paget's disease, and many others.

Steve had an extraordinary sharp mind and this made him a very critical but reliable reviewer. I had the chance to go through site visits to my lab chaired by Steve and this was a very rewarding, but also somewhat frightening experience. Steve had that remarkable ability to ask, in his usual very friendly fashion, those simple questions that are so pertinent and so difficult to answer. But I think that our long lasting personal friendship originated from these encounters.

I had the chance to stay with Steve and Cynthia on several occasions, both in Waban and in Woods Hole and they also visited us in France on a couple of occasions. The experience of being hosted by Cynthia and Steve was always extraordinary. Cynthia was a very attentive host and Steve a remarkable cook. All those of us who had the chance to have a meal prepared by Steve do certainly remember him, with his apron and his big smile, serving exquisitely prepared simple food. The conversation could then wander from science to recipes, from music to wines, always enlightened by Steve's deep sense of humor.

Steve had a very broad culture. Among many other things, his knowledge of French vineyards was amazing. When we moved to France, we bought a house not far from a small but renowned vineyard called "Côte-Rôtie". Shortly after, I visited Steve and Cynthia and told them about our new house. Steve then immediately explained that it is made of two hills, "Côte brune" and "Côte blonde" that give distinctly different wines, all things that I did not know yet at that time! He will be missed by all of us.

Contributed by Michel van der Rest



From: Harris ED Jr, DiBona DR, **Krane SM**. Collagenases in human synovial fluid. *J Clin Invest.* 1969;48:2104-2113.

From Figure 5, showing electron microscopy of reaction products of synovial fluid collagenases prepared as SLS aggregates. The length of the collagen (TC) as measured by this method is very nearly 3000 Å.

This image shows hybrid SLS aggregates of TC and TC^A (from a collagenase digested TC) that illustrate that the point of cleavage is almost exactly 750 Å or 25% of the distance from the C-terminal end of the molecule.



Dr. Glimcher in 2006

(Photo Credit: Stephanie Mitchell
Harvard University)

Melvin Glimcher, 1925-- 2014

Mel Glimcher, a pioneer in the bone and mineralization fields, passed away in May, 2014 at the age of 88. He brought a unique perspective to studying bone, informed by his highly interdisciplinary background. Mel received bachelor's degrees in mechanical engineering and physics from Purdue University, and then got his MD at Harvard Medical School. After completing his internship and residency in Surgery, he became a post-doctoral fellow in biophysics and biophysical chemistry at MIT. In 1966, Mel became the first tenured Chair of Orthopedic Surgery at Harvard Medical School and started a highly successful career in orthopedic research. His lab carried out basic studies on collagen biochemistry and cross-links, and characterized collagen structure and its mineralization using a wide range of biophysical techniques, including x-ray diffraction, electron diffraction, ³¹P NMR, and FTIR. His broad interests also included teeth, enamel and phosphoproteins. His collaboration with Steve Krane led to characterization of the hydroxylysine-deficient collagen disease EDS VIA, a first in heritable connective tissue disorders. In the 1960's Mel helped to create the "Boston Arm", an artificial arm that responded to instructions from the brain. This innovative work was an early example of the now rapidly developing area of tissue engineering. Mel kept engaged and active in research well into his 80's. When I moved to Boston in 2010, Mel would call or ask me to drop by

to talk about collagen and mineralization, ever curious and enthusiastic about science. He published 3 papers in 2010, including one in the Journal of Biological Chemistry on *"The isolation and characterization of glycosylated phosphoproteins from herring fish bones"*. Mel was a major force in encouraging young scientists to enter the field of bone and matrix biology.

Contributed by Barbara Brodsky, Tufts University, Medford.

I joined Mel's lab at the Massachusetts General Hospital (MGH) in 1969 as a raw post-doc, thinking I might continue studies on dental enamel protein, my thesis topic and currently one of the Glimcher lab interests. However, Mel had other plans for me with bone collagen and he could be very persuasive, as evident by my subsequent career path in the collagen field.

Mel at the time was the youngest-ever Chief of Orthopaedic Surgery at the MGH, the first endowed professor of orthopaedic surgery at Harvard Medical School and much else in building and managing a key surgical department. His first love, however, clearly was science and a firm belief that basic research was essential for the future direction of orthopaedics. This showed most clearly in what was to become a 50-year commitment to understanding bone in all its details down to the molecular level of the collagen/mineral relationship. He built the largest and most comprehensive orthopaedic research laboratories in the world, first at the MGH then after moving to the Boston Children's Hospital in 1970. He harnessed all the latest tools for probing protein and mineral structure from X-ray diffraction, scanning transmission EM to solid-state NMR, which were then in their infancy and which he understood and could explain both clearly from first-principles and in lay terms. A brilliant mind, but he also was a wonderful mentor and supporter of young scientists who he infected with his enthusiasm, rigor and perseverance but also sense of humor. I hold the fondest memories of a remarkable man and mentor at the height of his powers.

Contributed by David Eyre, University of Washington, Seattle

Further obituaries can be seen at:

<http://www.nytimes.com/2014/05/31/us/dr-melvin-j-glimcher-prosthetics-innovator-dies-at-88.html> or at:
<http://www.bostonglobe.com/metro/2014/06/04/melvinglimcher-pioneering-bone-researcher-was-developer-boston-arm/FmsUBKJfYfAh92z7Zf8URO/story.html>.

AWARDS AND HONOURS

The Marfan Foundation presented its first Distinguished Research Award to Robert Mecham, Ph.D., Alumni Endowed Professor of Cell Biology and Physiology and Professor of Medicine, Pediatrics, and Biomedical Engineering at Washington University School of Medicine. Dr Robert Mecham is a national leader in research of elastic tissue function whose work has contributed to understanding the structure and function of fibrillin, the abnormal protein in Marfan syndrome.



Dr Robert Mecham when he received his award, with Dr Alan Braverman, Washington University, host of the event

(Photo credit: Tim Joyce/The Marfan Foundation)

Professor Tony Weiss awarded the Sir Samuel McCaughey Chair in Biochemistry



The University of Sydney has conferred the title of Sir Samuel McCaughey Chair in Biochemistry to Tony Weiss. This rare institutional award benefits from a large bequest from Sir Samuel McCaughey almost a century ago. Tony is a world leader in tropoelastin and synthetic elastin research, and is the President of the Matrix Biology Society of Australia and New Zealand.



ANNOUNCEMENTS

The **“Joan and Joel Rosenbloom Research Center for Fibrotic Diseases”** was established in February 2013 as part of the Jefferson Institute of Molecular Medicine at Thomas Jefferson University in Philadelphia.

This interdisciplinary, interdepartmental Center is engaged in research to identify pathomechanistic pathways leading to phenotypic presentations of fibrotic diseases, with implications for development of therapeutic modalities.

The principal scientists of the Center, Dr. Joel Rosenbloom as the Director and Drs. Sergio Jimenez and Jouni Uitto as Associated Directors, are well established researchers in the field of extracellular matrix of connective tissue.

The Center organizes biennial research symposia on fibrotic diseases – The next one is being held on April 23, 2015 (see the announcement below).

The Center is currently recruiting additional faculty and research fellows.

For further information, please contact Joel Rosenbloom, MD, PhD at joel.rosenbloom@jefferson.edu

SECOND BIENNIAL RESEARCH SYMPOSIUM

The Joan and Joel Rosenbloom Research Center for Fibrotic Diseases

Jefferson Institute of Molecular Medicine
and Department of Dermatology and Cutaneous Biology
Sidney Kimmel Medical College, Philadelphia, PA

TGF- β in Cancer, Wound Healing and Fibrosis

April 23, 2015
Bluemle Life Sciences Building
Mandeville Auditorium, Room 101
1:00 – 5:00 PM

Guest Speakers

Jeffrey M. Davidson, PhD
Department of Pathology, Vanderbilt University

Alain Mauviel, PhD
Institut Curie, Orsay

Gareth Inman, PhD
Division of Cancer Research, University of Dundee

Reception to follow

For further information please contact Carol Kelly
at Carol.Kelly@jefferson.edu or (215) 503-5785

MEETING REPORTS

ASMB Biennial Meeting, October 2014, Cleveland, OH, U.S.A.

The American Society of Matrix Biology Biennial conference was held in Cleveland, OH, from October 12-15, 2014 and was attended by participants from 14 countries. 175 posters on all aspects of matrix biology and cell matrix interactions were presented by students, post-docs and faculty. The conference had a broad program comprising plenary sessions and concurrent sessions, in which the majority of talks were selected from student and post-doc abstracts. A pre-conference program included collaborative sessions with TERMIS and the International Society for Hyaluronan Sciences. The conference keynote lecture by Dr Jack Dixon (UCSD), was on the mechanisms and roles of phosphorylation of secreted molecules. The conference banquet held at the Rock and Roll Hall of Fame and Museum brought the conference attendees together for an enjoyable evening of live music, a buffet dinner and informal interactions.

From the Meeting Organiser: Suneel S. Apte, MBBS, D.Phil., President of ASMB



Conference attendees interact at the opening reception - the Cleveland skyline in the background.



Keynote speaker Jack Dixon (second from left) and Claudia Dixon (right), with former ASMB President Jeff Davidson (second from right) and Bjorn Olsen (left).

REPORTS FROM STUDENTS FUNDED BY ISMB TRAVEL GRANTS

One of the most important activities of ISMB is providing international travel grants for young investigators to attend and participate in matrix biology meetings. Below are reports provided by the three ISMB travel awardees to the **ASMB Biennial Meeting in Cleveland**, October 2014. One of the awardees is a post-doctoral researcher in Japan; a second is a graduate student in Canada; and the third already has an MD degree and is pursuing a Ph.D. in Belgium. Reading their reports below, you can see the value of the ISMB travel awards for these young researchers, and the meeting was certainly enriched by their presence and enthusiasm.

Although it was my first ASMB meeting, I was very excited by many cutting-edge talks and posters on the meeting. The meeting program covered a wide variety of topics in extracellular matrix biology (from basic science to clinical application). I had an opportunity to discuss with many senior and young researchers, and got numerous ideas and suggestions to advance my research. My most impressive events were two mentoring sessions, "Carrier mentoring session" and "Women mentoring session". These events enormously stimulated me, because I could directly speak with top-notch mentors who lead company or laboratory. Furthermore, I acquired some beneficial advice and information from mentors for developing my research career. The experience on the meeting was very wonderful, so I will surely attend again the next ASMB meeting.

Ryoko Sato-Nishiuchi, Ph.D., Post-doctoral Researcher, Laboratory for Extracellular Matrix Biochemistry, Institute for Protein Research, Osaka University, Japan



Nothing quite compares to attending an international conference when it comes to sharing information, discussing research results, and getting to know new people. This has certainly been the case for the 2014 Biennial Meeting of the American Society for Matrix Biology (Cleveland, Ohio). As such, it was a great honor to be selected as a recipient of the ISMB International Travel Award. It was even more satisfying to present some of the recent work we have done on glycosaminoglycan synthesis defects in Ehlers-Danlos syndrome, and to get some valuable feedback from other researchers. I enjoyed the overall quality of the work, and the excellent keynote presentations by some of the senior researchers. The organizing committee put together a very interesting scientific program. It was a great experience, and I hope to attend it again in the near future.

Tim Van Damme, MD; candidate for Ph.D. at the Center for Medical Genetics, Ghent University, Ghent, Belgium

It was indeed an enriching experience attending and presenting research from our laboratory at the ASMB meeting. It was a display of spectacular cutting-edge research in matrix biology by researchers from all around the globe in both poster and oral presentation sessions. The Career Mentoring Breakfast was a unique opportunity to learn from the established scientists about the trials and tribulations of their careers. It is always a delight to hear from the stalwarts about their research, but it was very impressive to listen to young investigators presenting the science that they pursue in their research groups. The ASMB Young Investigator Awardee, Dr. Sean Gill's presentation on the role of TIMP3 in lung injury was very informative and well received. I thoroughly enjoyed the sessions on "Biological Mechanisms and Impact of Matrix Cross-linking on Cellular Systems and Tissue Function" and "Pathobiology of Hyaluronan". The meeting provided a great platform to interact with both senior and junior investigators and exchange scientific thoughts and ideas. This was my first time at the meeting and I can already say with confidence that this is one worth attending every two years. I am grateful to ISMB for my selection as one of the three ISMB International Travel Award recipients at this meeting and thus supporting my participation at the ASMB Biennial Meeting.

Rushita Bagchi, PhD Candidate, Department of Physiology and Pathophysiology, University of Manitoba, Winnipeg, Canada.

ISMB international travel grants are currently available for the following conferences:

- Gordon Research Conference on Cartilage Biology and Pathology, March 22-27, 2015, Galveston, TX, USA
- Gordon Research Seminar/Conference on Collagen, July 12-17, 2015, New London, NH, USA
- Gordon Research Conference on Matrix Metalloproteinases, August 2-7, 2015, Newry, ME, USA
- Matrix Pathobiology, Signaling & Molecular Targets (FEBS Advanced Lecture Course), September 24-29, 2015, Rhodes, Greece
- Matrix Biology Europe, June 11-14, 2016, Athens, Greece

If you are a young scientists (maximum 5 years post PhD) who works in a country outside where the meeting is being held and are interested in applying for an ISMB international travel grant, please apply directly to meeting organisers. Awardees will be chosen by a selection committee chaired by the meeting organiser(s), and will be based on submitted abstract, curriculum vitae, list of publications and letter of application. Selection will be done before the meeting, immediately following the abstract submission deadline, in order to help awardees making travel plans.

Report on the First *Matrix Biology Ireland* Meeting at NUI Galway

Last November 19th-21st the First Annual Meeting of Matrix Biology Ireland (MBI) took place at the University of Galway (NUI Galway). This inaugural meeting also represented the formal launch of *Matrix Biology Ireland*, a recently established learned society, having the scope of promoting and consolidating knowledge and expertise in the Extracellular Matrix field in Ireland.

This event provided a platform of interdisciplinary exchange in the field of Matrix Biology with world class scientists meeting in Galway, including speakers from an industry background and internationally recognised authorities in Matrix Biology and related fields. The added value was in the wide range of aspects covered, which spanned from the basics of extracellular matrix structure and function to more applied use of the matrix knowledge.

A thorough understanding of the biology of the extracellular matrix finds in fact an immediate application in a number of research fields in the biomedical area, which in Ireland, and especially in NUI Galway, are particularly well developed. This includes Biomaterials and Tissue Engineering, Regenerative Medicine and Developmental Biology, Drug delivery and Medical Device research, Imaging and Microscopy, and Glycobiology. This, therefore, also underscores the importance of a constant growth of the Extracellular Matrix research within the Irish scientific community as it will provide useful complement to several existing highly rated and very active research groups.

The meeting has been organised by two NUI Galway-based researchers, Dr Fabio Quondamatteo and Dr Dimitrios Zeugolis, both members of the ISMB, and would not have been possible without the fundamental contribution of sponsors and supporters such as the ISMB, the BSMB, the GSMB, and, the Journal *Matrix Biology*. Further support was given by the *Anatomical Society*, various companies both in the areas of laboratory supplies and medical devices, the University branch of the Bank of Ireland, and from NUI Galway.

The resonance from the audience of this first meeting was generally positive, indicative of a successful event. We are actively working now towards starting a tradition of Matrix meetings in Ireland which will stimulate continuous growth of Matrix interest in Ireland, further consolidating the Irish presence in the Matrix field, and ultimately providing a useful platform to support and complement the existing excellent research community in the country.

The next meeting is taking place at UCD in Dublin in December 2015 (2nd - 4th December) and the organisation will be lead by Dr. Tom Flanagan. Further info on our website: www.mbi.ie.

Dr Fabio Quondamatteo, President MBI, fabio.quondamatteo@nuigalway.ie

Matrix Biology Society of Australia and New Zealand.

The MBSANZ held its 38th Annual Scientific Meeting at the historic Vue Grand Hotel, Queenscliff, October 2014.



Discussions during an afternoon break



Preparing for the Conference Dinner



MATRIX BIOLOGY RESOURCES – AN UPDATE



The new version of MatrixDB (<http://matrixdb.ibcp.fr/>), the extracellular matrix interaction database has been released, and the corresponding paper has been published in the Database issue of Nucleic Acids Research: Launay G, Salza R, Multedo D, Thierry-Mieg N, Ricard-Blum S. MatrixDB, the extracellular matrix interaction database: updated content, a new navigator and expanded functionalities. Nucleic Acids Res 2015 43(Database issue):D321-7. "To the best of our knowledge MatrixDB is the only general-purpose database curating and storing interactions taking place in the ECM and at the cell surface. MatrixDB is not restricted to protein–protein interactions like most other databases, but also focuses on protein–glycosaminoglycan interactions.... MatrixDB data have been used to build interaction networks of extracellular proteins, glycosaminoglycans, proteoglycans, basement membrane, the ECM or physiological process ..." MatrixDB is a member of the International Molecular Exchange (IMEx) consortium (<http://www.imexconsortium.org>) and is in charge of the curation of the papers published in Matrix Biology and reporting interactions since 2009.

From: Sylvie Ricard-Blum, s.ricard-Blum@ibcp.fr

MEMBERSHIP

ISMB is dedicated to promoting matrix biology research on a global scale and to facilitating communication among matrix-related organizations and researchers from different countries. Members of the Society receive twice yearly newsletters highlighting recent research advances, open positions, descriptions of matrix biology resources, and announcements of relevant meetings, together with messages from the ISMB President. Members are entitled to special discount rates at major international meetings in Europe, the Americas and Asia/Oceania. ISMB also sponsors travel grants for young scientists to attend these and other meetings. Every two years, the Society presents the Rupert Timpl Award to a young scientist (<40 years old) for the best paper related to matrix biology and also sponsors the Distinguished Investigator Award for lifetime achievements in the field. If you work in the matrix biology area, consider becoming a member of ISMB to support the international matrix community and give your input on ways to improve interactions and communication. For further information, please see www.ismb.org.

POSITIONS AVAILABLE

In previous issues, we have run a Section on Positions available – this has changed.

In the past, we have included any Positions Available within the newsletter. But it has become clear that a twice yearly newsletter is not a good way of posting positions in any timely manner; the deadline for applications would frequently be over before the newsletter came out. So these job openings are now being posted and can be viewed online on the ISMB website (www.ismb.org). (If you do not have this key site 'bookmarked' why not do this right now?)

So, if you have any job openings please send the notification to David Hulmes (david.hulmes@ibcp.fr) for placing on the ISMB website (<http://ismb.org/career/>). If you are looking for opportunities also check out our website.

Also, as noted in the previous Newsletter, the "Extracellular Matrix News" also includes an online listing of positions that are available, so you can also benefit from this partnership. "Extracellular Matrix News" is a free, weekly e-Newsletter that keeps members of the extracellular matrix community informed by providing the latest news from all areas of the field, from science, research and business, to regulatory affairs. The ISMB web site (www.ismb.org) now includes a link to "Extracellular Matrix News: on the welcome page. (<http://www.extracellularmatrixnews.com>).

**International
Society for
Matrix Biology**





MATRIX MEETING ANNOUNCEMENTS



British Society for Matrix Biology

The British Society for Matrix Biology. "Location, location, location: the matrix and the microenvironment"
March 30-31, 2015

St Catherine's College, Oxford, UK

Website: <http://www.bsmb.ac.uk/>



3rd World Congress on Controversies, Debates and Consensus in Bone, Muscle and Joint Diseases (BMJD)
April 23-26, 2015

Montreal, Canada

Website: <http://www.congressmed.com/bmjd/>



4th Joint Meeting of European Calcified Tissue Society (ECTS) and the International Bone and Mineral Society (IBMS)
April 25-28, 2015

Rotterdam, The Netherlands

Website: <http://www.ects-ibms2015.org/>



Wound Healing Society

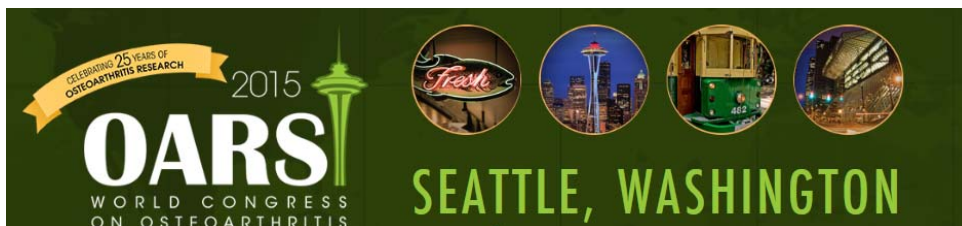
Improving wound healing outcomes through science, education, and communication.

27th Annual Meeting of the Wound Healing Society

April 29 - May 3, 2015

San Antonio, Texas

Website: <http://woundheal.org/Meetings/Annual-Meeting.aspx>



2015 Osteoarthritis Research Society International (OARS) World Congress

April 30 – May 3, 2015

Seattle, WA, USA

Website: <http://2015.oarsi.org/>



International Cartilage Repair Society World Congress

May 8-11, 2015

Chicago, Illinois, USA

Website: www.cartilage.org E-mail: office@cartilage.org



Gordon Research Seminar on Fibronectin, Integrins and Related Molecules

May 9-10, 2015

Website: <https://www.grc.org/programs.aspx?id=14721> followed by

Gordon Research Conference on Fibronectin, Integrins and Related Molecules

May 10-15, 2015

Lucca (Barga), Italy

Website: <https://www.grc.org/programs.aspx?id=11304>



21st Canadian Connective Tissue Conference 2015

May 28-30, 2015

Université Laval, Québec City, Canada

Website: <http://connective-tissue-canada.com/cctc-2015/>



2nd International Symposium on Vascular Tissue Engineering

May 28-29, 2015

Donghua University, Shanghai, China

Website: <http://www.vascularte.com/>



Gordon Research Seminar on Tissue Repair and Regeneration

June 6-7, 2015

Website: <https://www.grc.org/programs.aspx?id=14873> followed by

Gordon Research Conference on Tissue Repair and Regeneration

June 7-12, 2015

New London, NH, USA

Website: <https://www.grc.org/programs.aspx?id=12412>



2015 International Society for Hyaluronan Sciences

June 7-11, 2015

Florence, Italy

Website: <http://www.ishas.org/2015-ha-conference>



23rd World Congress of Dermatology

June 8-13, 2015

Vancouver, Canada

Website: <http://derm2015.org/>



International Symposium Bone Regeneration

June 11-13, 2015

Berlin, Germany

Website: <http://www.isbr.eu/>



Gordon Research Seminar on Collagen

July 11-12, 2015

Website: <https://www.grc.org/programs.aspx?id=14697> followed by

Gordon Research Conference on Collagen

July 12-17, 2015

New London, NH, USA

Website: <https://www.grc.org/programs.aspx?id=12175>

At least 10 abstracts submitted to the GRS and GRC will be selected for short oral presentations at the GRC. Additional oral presentations of late breaking results will be selected at the meeting. The total number of meeting participants in 2015 is limited to 178 (capacity at the meeting site). Please apply and register early to secure your participation.

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2nd Annual Pan Pacific Orthopaedic Congress,

July 22-25, 2015

Kona, Hawaii, USA

Website: icjr.net/meeting/overview.84.htm E-mail: info@icjr.net



Gordon Research Seminar on Elastin, Elastic Fibers and Microfibrils

July 25-26, 2015

Website: <https://www.grc.org/programs.aspx?id=14713> followed by

Gordon Research Conference on Elastin, Elastic Fibers and Microfibrils

July 26-31, 2015

Biddeford, MA, USA

Website: <https://www.grc.org/programs.aspx?id=11199>



Gordon Research Seminar on Matrix Metalloproteinases

August 1-2, 2015

Website: <https://www.grc.org/programs.aspx?id=14769> followed by

Gordon Research Conference on Matrix Metalloproteinases

August 2-7, 2015

Newry, ME, USA

Website: <https://www.grc.org/programs.aspx?id=12358>

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9th International Conference on Proteoglycans and 10th Pan-Pacific Connective Tissue Societies Symposium

August 23 - 27, 2015

EWHA Womans University, Seoul, Korea

Website: <http://icp-ppctss2015.org/sub/catalog.php?CatNo=1>



Bone Research Society 2015 (jointly with the British Society for Matrix Biology)

September 1 -3, 2015

Edinburgh, United Kingdom

Website: <http://www.brsoc.org.uk/>



2015 4th TERMIS World Congress

September 8-11, 2015

Boston Marriott Copley Place, Boston, MA, USA

Website: <http://www.termis.org/wc2015/>



Matrix Pathobiology, Signaling and Molecular Targets

FEBS-MPST 2015, Rhodes, 24th - 29th September

Matrix Pathobiology, Signaling & Molecular Targets: FEBS Advanced Lecture Course

September 24-25, 2015

Rhodes, Greece

Website: <http://www.febs-mpst2015.upatras.gr/>

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The American Society for
Bone and Mineral Research

American Society for Bone and Mineral Research

October 9-12, 2015

Seattle, USA

Website: <http://www.asbmr.org/Meetings/FutureAnnualMeetings.aspx>



7th Joint Meeting of the European Tissue Repair Society & the Wound Healing Society (ETRS-WHS 2015)

October 21-23, 2015

Copenhagen, Denmark

Website: <http://etrs-whs2015.org/>



World Conference on Regenerative Medicine

October 21 – 23, 2015

Leipzig, Germany

Website: <http://www.wcrm-leipzig.com/>



Matrix Biology Society of Australia and New Zealand - Joint meeting with Australia and New Zealand Bone & Mineral Society and Molecular and Experimental Pathology Society of Australasia

November 1-4, 2015

Hobart, Tasmania, Australia.

Website: <http://www.anzbmsconference.com>



10th World Biomaterials Congress

17 May 17- 22, 2016

Montreal, Canada

Website: <http://www.wbc2016.org>



Matrix Biology Europe

June 11-14, 2016

Athens, Greece

Website: http://www.eumb.eu/meetings_gree.html

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TERMIS-EU Conference 2016

June 28 - July 1, 2016

Uppsala, Sweden

Website: http://www.termis.org/meetings_europe.php

Help Please!

Please send announcements on forthcoming Matrix Biology meetings to:

David Hulmes, david.hulmes@ibcp.fr, for inclusion on the ISMB Website
and/or

Barbara Brodsky, b.brodsky@tufts.edu, for inclusion in the Newsletter