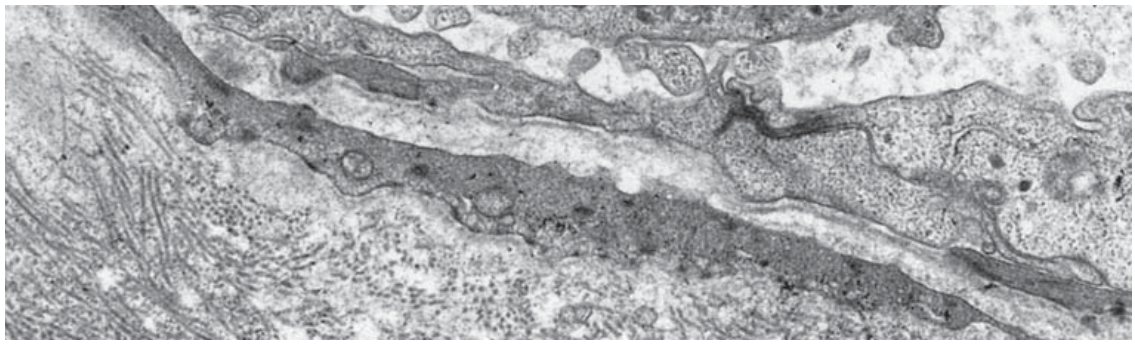


ISMB NEWSLETTER

February 2011

Dear fellow matrix biologists,

First of all, a big thanks to Renato Iozzo for having done such a great job as president over the past two years. With his numerous appearances at most major matrix biology meetings worldwide, he has been able to spread the word about the ISMB in his own inimitable way. It will indeed be a hard act to follow! Hearty thanks also to our long standing secretary and treasurer Peter Bruckner, who continues to be the linchpin of the society for over 15 years now. Peter has informed us that he will be stepping down in two years time. So this is a call for volunteers wishing to take over his role, either as secretary or treasurer, or even both! Thanks also to Council members whose term has finished in the last couple of years (Monique Aumailley, Leena Bruckner-Tuderman, Klaus von der Mark, John Bateman, Yasanori Okada, Lynn Sakai) and welcome to the new arrivals (David Birk, Reinhard Faessler, Karl Kadler, and Shireen Lamandé, Attila Aszodi, Hans-Peter Bachinger, Danny Chan). For a full list of current Council members, check out the web site (www.ismb.org). Finally, thanks to all the long standing members of the ISMB (the people who actually fund its various activities!) and to those of you have recently joined. We are currently about 200 members in total, from all parts of the world.

So what is the role of the ISMB? The society exists to promote matrix biology on a global scale, through a number of different activities. First and foremost, it helps young scientists by giving them the chance to experience the best of matrix biology, through the award of travel fellowships to attend international matrix biology meetings (FECTS, ASMB, PPCTS ...). While each of these organisations provides travel grants for people within each area (Europe, USA and Australasia/Japan, respectively), ISMB provides grants to travel between zones, funding that is more difficult to obtain otherwise. Second, ISMB sponsors scientific sessions at international meetings (funding for invited speakers) and awards prizes for outstanding contributions to matrix biology, both to young investigators having made novel inroads in matrix biology (Rupert Timpl award) and to established researchers for lifetime achievements in the field (Distinguished Investigator award). Thirdly, there is this regular newsletter, brilliantly coordinated by Jamie Fitzgerald, which provides information about forthcoming meetings, publications, employment possibilities and other matrix news. Finally, we work closely with Elsevier, publishers of Matrix Biology.

ISMB OFFICERS

President
David J. S. Hulmes

Vice President
Currently vacant

Past President
Renato V. Iozzo

Secretary/Treasurer
Peter Bruckner

Council Members
Attila Aszódi
Hans Peter Bächinger
David Birk
Danny Chan
Reinhard Fässler
Jamie Fitzgerald
Karl Kadler
Shireen Lamandé
Johana Myllyharju
Dieter Reinhardt
Florence Ruggiero

Newsletter Editor
Jamie Fitzgerald

What should be the aims and objectives of ISMB over the coming year? First, we should encourage more young scientists to join the society, to take advantage of its many benefits, such as travel grants to attend meetings. We could also consider providing short term grants to enable young scientists to spend time in overseas laboratories (learning a new technique for example). Another important role for the society is to coordinate matrix biology activities worldwide. The idea is not to take over the activities of the many national and regional societies, but to provide a central source of information about up and coming meetings in different parts of the world, and act as a resource centre for scientists new to the field. You might have other suggestions for new ISMB activities. If so, please let me know (d.hulmes@ibcp.fr). One thing is clear, for the society to flourish, we need more members! Why not make it a resolution for each of us to recruit at least one new member

in 2011?

We have lots of great meetings to look forward to in 2011. One is the special symposium in Boston in honour of Bjorn Olsen (April 14-15). There are also many Gordon Conferences (Angiogenesis; Biomaterials and Tissue Engineering; Bones and Teeth; Cartilage Biology and Pathology; Cell Contact and Adhesion; Collagen; Elastin and Elastic Fibres; Fibronectin, Glycobiology; Integrins and Related Molecules; Matrix Metalloproteinases; Tissue Repair and Regeneration; Vascular Cell Biology), as well as the FEBS Advanced Lecture Course in Spetses (September 2-7), the International Proteoglycan Conference in Sydney (October 16-20) and the International Proteolysis Society Meeting in San Diego (October 16-20). Matrix Biology is clearly thriving! Be part of it.

Have a great year,

David Hulmes
President ISMB

Meeting Announcements

A meeting on "Translational Opportunities for the Heritable Disorders of Connective Tissue" will be held July 10-14, 2011, in Portland, OR, at the Shriners Hospitals for Children. The meeting co-organizers are Lynn Sakai, Hans-Peter Bachinger, Leena Bruckner-Tuderman, Peter Byers, Hal Dietz, and Bill Horton. Please mark your calendars! For further information, please email Lynn Sakai (lys@shcc.org).

The 2011 "Bones & Teeth" Gordon Research Seminar (GRS) and Research Conference (GRC) scheduled for June 18th – 19th and 19th – 24th, respectively, in Les Diablerets, Switzerland. Please inform your colleagues, including senior and junior investigators, who are interested in research on mineralized tissues. We would also like you to encourage graduate students and post-docs to attend the GRS, which is a unique forum for scientists with comparable levels of experience and education to present their data and ideas in order to get prepared for the following GRC.

Although the meeting is 5 months from now, we would like to emphasize the application deadlines May 22nd for GRC and May 21st for GRS. Please note that the deadline for abstracts to be considered for an oral presentation for the GRS is February 18th. The following websites provide more details on the programs and registration:

GRC: http://www.grc.org/programs.aspx?year=2011&program=bones
GRS: http://www.grc.org/programs.aspx?year=2011&program=grs_bones

In the case of the GRC any questions should be sent to bjorn_olsen@hms.harvard.edu and for the GRS to berendsena@nidcr.nih.gov.

We look forward to seeing you in Les Diablerets!

Bjorn R. Olsen and Agnes D. Berendsen (Chairs)
Brendan Lee and Shelley E. Brown (Vice Chairs)

2011 GRC on Cartilage Biology & Pathology
Location: Ventura Beach Marriott, Ventura, CA, United States
Dates: Sunday, March 06, 2011 - Friday, March 11, 2011

Chairs: Kathryn Song Eng Cheah (University of Hong Kong) and Karen M Lyons (UCLA)
Vice Chairs: Rocky S Tuan (University of Pittsburgh) and Andrea Vortkamp (University Duisburg-Essen)

Web Site: http://www.grc.org/programs.aspx?year=2011&program=cartilage
Online Application: http://www.grc.org/application.aspx?id=13109
RSS Feed: http://www.grc.org/rss/0000490.xml

40th Anniversary Celebration of the Collagen Gordon Research Conference: Celebrating the Past and Future

We would like to invite you to participate in the Collagen Gordon Research Conference. It will take place from July 17th – 22nd 2011, on the Colby-Sawyer College Campus in New London, NH.

Since the inaugural meeting in 1970, collagen extracellular matrix research has expanded into all aspects of hereditary and acquired diseases of the musculoskeleton, regenerative medicine, developmental biology, cell biology and biochemistry, and molecular genetics. The 2011 Collagen GRC is an opportunity to celebrate our 40th Anniversary of past achievements and to build on this firm foundation to set the agenda for young scientists that are pushing the frontiers of collagen and ECM research.
Key Note Speaker:
Kevin P. Campbell, Ph.D., HHMI, University of Iowa
"Glycobiology and Cell-Matrix Interactions: Insights from Dystroglycan Function"

Key Topics:
- Past and Future of Cell-Matrix Research: A Debate
- Emerging Technologies in Cell Matrix Biology
- Mechanotransduction in Tissue Organization
- Collagen Assembly and Processing
- Collagen Ligands and Receptors
- Collagens in Model Organisms
- Transcriptional and Epigenetic Regulation of Collagen
- STEM Cells and Regenerative Medicine

The 2011 GRC program will feature graduate students and postdoctoral fellows selected from talks given at the first ever Collagen Gordon-Kenan Research Seminar (GRS), which will immediately precede the GRC on July 16th - 17th, 2011. The 2 day GRS will provide a venue for young scientists involved in the diverse areas of collagen research to discuss their current work, learn from one another, network with their peers, and interact with leading scientists from the associated GRC.

Please join us at this very special 40th Anniversary conference and encourage your students and fellows to attend both the GRS and GRC. For details on registration and information on the programs, please consult the following web sites:

GRC: http://www.grc.org/programs.aspx?year=2011&program=collagen
GRS: http://www.grc.org/programs.aspx?year=2011&program=grs_coll

GRC Collagen:		GRS Collagen:	
Chair:	Billy G. Hudson	Chair:	Paul S. Nerenberg
Vice-Chair:	Karl E. Kadler	Vice-Chair:	Chloé Yeung

Matrix Research Update

MatrixDB, the extracellular matrix interaction database.
Chautard E, Fatoux-Ardore M, Ballut L, Thierry-Mieg N, Ricard-Blum S.
*Nucleic Acids Res 2011 Jan;39(Database issue):D235-40***.**

MatrixDB (http://matrixdb.ibcp.fr) is a freely available database focused on interactions established by extracellular proteins and polysaccharides. Only few databases report protein-polysaccharide interactions and, to the best of our knowledge, there is no other database of extracellular interactions. MatrixDB takes into account the multimeric nature of several extracellular protein families for the curation of interactions, and reports interactions with individual polypeptide chains or with multimers, considered as permanent complexes, when appropriate. MatrixDB is a member of the International Molecular Exchange consortium (IMEx) and has adopted the PSI-MI standards for the curation and the exchange of interaction data. MatrixDB stores experimental data from our laboratory, data from literature curation, data imported from IMEx databases, and data from the Human Protein Reference Database. MatrixDB is focused on mammalian interactions, but aims to integrate interaction datasets of model organisms when available. MatrixDB provides direct links to databases recapitulating mutations in genes encoding extracellular proteins, to UniGene and to the Human Protein Atlas

that shows expression and localization of proteins in a large variety of normal human tissues and cells. MatrixDB allows researchers to perform customized queries and to build tissue- and disease-specific interaction networks that can be visualized and analyzed with Cytoscape or Medusa.

Matricryptins derived from collagens and proteoglycans.
Ricard-Blum S, Ballut L.
Front Biosci. 2011 Jan 1;16:674-97

Controlled proteolysis of extracellular matrix components releases bioactive fragments or unmasks cryptic sites that play key roles in controlling various physio-pathological processes including angiogenesis, tissue remodeling, wound healing, inflammation, tumor growth, and metastasis. We review here the structure and mechanisms of release of i) the proteolytic fragments (matricryptins) cleaved from collagens, proteoglycans and glycosaminoglycans, and ii) the matricryptic sites existing in these molecules. The cell surface receptors and the signaling pathways they trigger to exert their biological activities is discussed with the major physio-pathological processes they control. Their involvement in autoimmune and inherited diseases is reported. Most matricryptins issued from collagens, proteoglycans and glycosaminoglycans exhibit anti-angiogenic and anti-tumor properties and their use as potential drugs and as potential disease markers is discussed. Perspectives for identifying the common structural features, if any, of the matricryptins and their use in combination with chemotherapy and radiotherapy in the treatment of cancer are presented.

Chaperoning osteogenesis: new protein-folding disease paradigms
Elena Makareeva, Nydea A. Aviles, Sergey Leikin
Trends in Cell Biology, 22 December 2010

Recent discoveries of severe bone disorders in patients with deficiencies in several endoplasmic reticulum chaperones are reshaping the discussion of type I collagen folding and related diseases. Type I collagen is the most abundant protein in all vertebrates and a crucial structural molecule for bone and other connective tissues. Its misfolding causes bone fragility, skeletal deformity and other tissue failures. Studies of newly discovered bone disorders indicate that collagen folding, chaperones involved in the folding process, cellular responses to misfolding and related bone pathologies might not follow conventional protein folding paradigms. In this review, we examine the features that distinguish collagen folding from that of other proteins and describe the findings that are beginning to reveal how cells manage collagen folding and misfolding. We discuss implications of these studies for general protein folding paradigms, unfolded protein response in cells and protein folding diseases.

A novel 3-hydroxyproline (3HYP)-rich motif marks the triple-helical C-terminus of tendon type I collagen
David R. Eyre*, Mary Ann A. Weis, David M. Hudson, Jiann-Jiu Wu and Lammy S. Kim
JBC Papers in Press. Published on January 14, 2011

Because of its unique physical and chemical properties, rat tail tendon collagen has long been favored for crystallographic and biochemical studies of fibril structure. In studying the distribution of 3-hydroxyproline in type I collagen of rat bone, skin and tail tendon by mass spectrometry, the repeating sequences of GPP triplets at the C-terminus of α1(I) and α2(I) chains were shown to be heavily 3-hydroxylated in tendon but not in skin and bone. By isolating the tryptic peptides and subjecting them to Edman sequence analysis, the presence of repeating 3-hydroxyprolines in consecutive GPP triplets adjacent to 4-hydroxyproline was confirmed as a unique feature of the tendon collagen. A 1960s study by Piez and colleagues in which they compared the amino acid compositions of rat skin and tail tendon type I collagen chains indeed showed 3-4 residues of 3Hyp in tendon α1(I) and α2(I)chains but only one 3Hyp residue in skin α1(I) and none in α2(I). The present work therefore confirms this difference and localizes the additional 3Hyp to the GPP repeat at the Cterminus of the triple-helix. We speculate on the significance in terms of a potential function in contributing to the unique assembly mechanism and molecular packing in tendon collagen fibrils and on mechanisms that could regulate 3-hydroxylation at this novel substrate site in a tissue-specific manner.

Evolutionarily conserved, growth plate zone-specific regulation of the matrilin-1 promoter: L-Sox5/Sox6 and Nfi factors bound near TATA finely tune activation by Sox9

Andrea Nagy, Erzsébet Kénesi, Otgonchimeg Rentsendorj, Annamária Molnár, Tibor Szénási, Ildikó Sinkó, Ágnes Zvara, Sajit Thottathil Oommen, Endre Barta, László G. Puskás, Veronique Lefebvre, and Ibolya Kiss

Mol. Cell. Biol. 2011; 31(4): 686-699

To help uncover the mechanisms underlying the staggered expression of cartilage-specific genes in the growth plate, we dissected the transcriptional mechanisms driving expression of the matrilin-1 gene (Matn1). We show that a unique assembly of evolutionarily conserved cis-acting elements in the Matn1 proximal promoter restricts expression to the proliferative and prehypertrophic zones of the growth plate. These elements functionally interact with distal elements, and likewise are capable of restricting the domain of activity of a pan-cartilaginous Col2a1 enhancer. The proximal elements include a Pe1 element binding the chondrogenic L-Sox5, Sox6, and Sox9 proteins, a SI element binding Nfi proteins, and an initiator Ine element binding the Sox trio and other factors. Sox9 binding to Pe1 is indispensable for functional interaction with the distal promoter. Binding of L-Sox5/Sox6 to Ine, and Nfib to SI modulates Sox9 transactivation in a protein dose-dependent manner, possibly to enhance Sox9 activity in early stages of chondrogenesis, and repress it at later stages. Hence, our data suggest a novel model whereby Sox and Nfi proteins bind to conserved Matn1 proximal elements and functionally interact with each other to finely tune gene expression in specific zones of the cartilage growth plate.

Obituary: John Chapman

John Chapman was a pioneer of the use of electron microscopy for the study of connective tissue. In 1961, when the total number of papers that appeared on collagen was just 223 (compared to 7758 in 2010 !), John published his first paper, in the Journal of Biophysical and Biochemical Cytology (now Journal of Cell Biology). Entitled “Morphological and chemical studies of collagen formation”, this paper turned out to be remarkably prescient, as the following extract reveals: “In vitro studies on the precipitation of fibrils from solutions of collagen (Nageotte, 1927) have focused attention on the later stages of development and have led to the suggestion that the cell secretes monomeric collagen which aggregates into fibrils in the medium of the extracellular space (Gross et al., 1955; Fitton Jackson, 1956). The mechanism in the living tissue is unlikely to be as simple as this.” Who could have imagined at the time the enormous amount of research activity that would follow over the course of the next 50 years! Then only one type of collagen was known, and the identification of the soluble procollagen precursor was a further ten years away. Now we know that a whole host of non-collagenous molecules are involved in this process. But John was there at the outset, which was typical of the man, who went on to make a number of highly original and important contributions to the field. Trained as a physicist, like many who were attracted to biology at the time, John was concerned with the detail, and was never happier than when putting forward a new hypothesis. His map showing the correlation of the band pattern of collagen fibrils with the amino acid sequence is forever etched in the memory of many of us in the field, and was the forerunner of the many complex maps of collagen interaction sites that have since appeared. Always fascinated by the applications of electron microscopy to matrix biology, he was a pioneer in the development of scanning transmission electron microscopy to study the mass distribution along growing collagen fibrils. His mica sandwich technique is now one of the most widely used for preparing samples for rotary shadowing. Finally, his review on collagen fibril formation published in 1996 is probably the most cited in the field.

John took great pride in his scientific writing, occasionally consulting ‘Fowler’s Use of Modern English’ about the use of hyphens and when it was acceptable to use a split infinitive. The outcome was a collection of superb manuscripts on collagen fibril structure and assembly that are a joy to read. He had a special gift for expressing complex biophysical concepts in simple, beautifully-crafted English, that few others have been able to emulate. The quality of his writing reflected the clarity of thought and linear thinking that made John a respected and revered scientist.

John was an inspirational figure to many of us, not only for his scientific rigour but also for his larger than life character. Always full of energy and an excellent teacher, he never failed to leave his mark, whether in lectures or at conferences, where his distinctive laugh penetrated late night meetings with friends and colleagues. Many of his research students went on to pursue research careers with great distinction and today follow their mentor’s skills in training and developing the careers of young researchers. John had many interests, notably his love for the great outdoors that would often take him to exotic locations such as the Karakorams on the Pakistan/Afghanistan frontier, the subject of a BBC documentary in 1976. Even there his passion for medical biophysics was put to good use, insofar as he was able to identify the probable cause of the endemic goitre endemic in the region as iodine depletion due to binding to mineral phases in the water supply. Such adventures never failed to catch the imagination of fellow scientists, some of whom were lucky enough to take part in them. So much so that

John was often as much in demand for talking about his trekking activities as about his research. Though less exotic, visions of John bounding up Pavey Ark in the Lake District during a lab outing in early 80s are indelibly etched in our memory, and epitomize his unbounded enthusiasm and energy.

John's work as a medical biophysicist was a very important component of an research focus at the University of Manchester that began in the 1950/1960s when a small group of basic scientists and clinicians became interested in connective tissues. At the time this was very difficult work and of interest to few biologists except rheumatologists. However, based on the expertise and experience of John and his colleagues over the years, there is now a major international research centre for matrix research in Manchester with over 120 researchers, those early investigations having proved to be relevant to so many areas of biology and medicine.

John was an outstanding scientist and human being, the likes of whom are few and far between. He will be sadly missed, though his voice continues to ring out in our memories.

David Hulmes
David Holmes
Mike Grant
Karl Kadler

Jobs

A postdoc position is available in the lab of Lynn Sakai, Shriners Hospital for Children, Oregon Health & Science University, Portland, OR. The postdoc will develop projects in order to elucidate how mutations in fibrillin-1 cause musculoskeletal and vascular disease, using new (conditional) mouse models of Marfan syndrome, biochemical, and imaging approaches. Please send CVs to Lynn Sakai (lys@shcc.org).

Post-doctoral positions are available in 2011 in the laboratory of Suneel Apte to investigate disease-relevant functions of ADAMTS proteins and investigate regulatory networks in extracellular matrix. Ongoing projects and a list of publications can be found at http://www.lerner.ccf.org/bme/apte/. Recent publications include

1. Enomoto, H., Nelson, C., Somerville, R.P.T., Mielke, K., Dixon, L., Powell, K., Apte, S.S. Cooperation of two ADAMTS metalloproteases in closure of the mouse palate identifies a requirement for versican proteolysis in regulating palatal mesenchyme proliferation. Development, 137;4029-4038, 2010.
2. Koo, B-H. Coe D.M., Dixon, L.J., Somerville, R.P.T., Nelson, C. M., Wang., L. W., Young, M.E., Lindner, D.J., Apte S.S. ADAMTS9 is a cell-autonomously acting anti-angiogenic metalloprotease expressed by microvascular endothelial cells. Am J Pathol 2010, 176:1494-504
3. McCulloch, D.R., Nelson, C.M., Dixon, L.J., Silver D.L., Wylie, J.D., Lindner, V., Sasaki, T., Cooley, M.A., Argraves, W.S. and Apte, S.S. ADAMTS metalloproteases generate active versican fragments that regulate interdigital web regression. Dev Cell 2009, 17(5):687-98
4. Apte SS A disintegrin-like and metalloprotease (reprolysin-type) with thrombospondin type 1 motif (ADAMTS) superfamily-functions and mechanisms. J Biol Chem. 2009, 284(46):31493-7

Relevant fields of work: Extracellular matrix regulation of cell behavior, ADAMTS proteases, proteoglycans, inherited connective tissue and eye disorders, fibrosis, mouse genetics, developmental biology, musculoskeletal biology, cardiovascular biology, angiogenesis and cancer

Applicants: PhD, MD, or MD,PhD candidates with a career interest in extracellular matrix, connective tissue disorders, proteases, mouse knockouts, developmental biology, or specific clinical interests in fibrosis, eye disease, cardiovascular disease or connective tissue disorders are encouraged to apply. Interested individuals should email the following to aptes@ccf.org: 1. CV, 2. Statement of research experience and career plans, and 3. Contact information, including email and telephone numbers for three references.

Postgraduate Fellowship Position in Tissue Engineering/Biomaterials
Network of Excellence for Functional Biomaterials
Applications are invited from suitably qualified candidates for the position of Postgraduate Fellowship in Tissue Engineering/Biomaterials within the Network of Excellence for Functional Biomaterials (NFB) at the National University of Ireland, Galway.

Organisation: The NFB is a partnership of scientists, engineers and clinicians, who all share a common vision of developing the next generation of functionalised biomaterials as innovative and successful therapies that provide solutions for current clinical needs. The outputs of the Network are innovative biomaterials-based therapeutic strategies for application to a wide variety of human diseases. The University provides a research-friendly social and cultural environment. Galway is also one of the key cities in Europe with a significant presence of the medical device industry sector. For more information on NFB please refer to www.nfb.ie.

Job Description: A postgraduate fellowship research position will be available starting in February 2011. The proposed project will transfer knowledge from the field of Matrix Biology into Biomaterials Science, Tissue Engineering and Regenerative Medicine. The successful candidate will work on the project which aims to fabricate and functionalise natural and synthetic nano-textured scaffolds with bioactive and/or therapeutic molecules. He/she will conduct a series of biological assays to evaluate the performance and the potential of the produced scaffolds for soft tissue repair. The fellowship will cover fees and a monthly stipend.

Applicant's Specifications: The ideal candidate would hold or expect to obtain an Honours Bachelor degree in Cell/Matrix Biology, Biomaterials, Bioengineering or other Biomedical or Biological discipline. A Master's Degree will be advantageous. Experience in cell culture techniques, protein analysis and scaffold fabrication is desirable. Candidates must be highly motivated and passionate about developing new products and have strong analytical skills and strong oral and interpersonal skills. Fluency in written and spoken English are essential. Start date: February 2011

To Apply: Further information is available at (www.nfb.ie). Applicants are requested to submit a i) covering letter outlining their suitability for the project, ii) a detailed CV and iii) names of three referees to Ms. Tara Cosgrave, Network of Excellence for Functional Biomaterials (NFB) via E-mail to nfb@nuigalway,ie quoting "PGR-2011-01".

Membership reminder

Time has come, again, to renew your membership in ISMB for the calendar year 2011 and, if applicable, to re-activate your subscription to "Matrix Biology". The rates you can choose from are as follows:

EUR 50.00 for your membership, only (without subscription to Matrix Biology)
EUR 100.00 for your membership as a supporting member (without subscription to Matrix Biology)
EUR 100.00 for your membership, including your online-only subscription to Matrix Biology
EUR 155.00 for your membership, including a print and online subscription to Matrix Biology

If you are a student, a post-doc until two years after your graduation, or a senior scientist after your retirement you also have the following options:

EUR 20.00 for your membership, only (without subscription to Matrix Biology)
EUR 70.00 for your membership, including your online-only subscription to Matrix Biology
EUR 125.00 for your membership, including a print and online subscription to Matrix Biology

We would appreciate if you could settle your account rather soon by online credit card payment. For this, please, go to http://www.ismb.org and activate the option 'Membership'. You will find a hyperlink 'Online credit card payment' that, after activation, will give you all further instructions. If you require a receipt for your payment, please, let me know by e-mail and we will send this to you.

Peter Bruckner (peter.bruckner@uni-muenster.de)
International Society for Matrix Biology
Secretary / Treasurer

Postdoc Position in Molecular Cancer Research available at Inserm U682, Strasbourg, France

In the team of Gertraud Orend a 3-year postdoc position with support from ANR is immediately available. The project is focused on the impact of the tumor microenvironment on tumor angiogenesis. In vivo tumorigenesis and 3D cell culture models will be used to address the function of the extracellular matrix molecules tenascin-C and fibronectin in tumor angiogenesis. This project is done in collaboration with a tissue engineering group (Inserm) in Strasbourg and a cell biology group (CNRS) in Nice.
We are looking for a highly motivated and independent postdoc experienced in biochemistry, cell biology and tumor animal models who preferably has collected experience abroad.

Please, send a CV, letter of interest and name of three referees to Gertraud Orend, Inserm U682, De l`homéostasie tissulaire au cancer et à l`inflammation, *Equipe*: Impact du microenvironnement sur l`angiogenèse et l`invasion tumorale, Faculté de Médecine, Université de Strasbourg, 3, avenue Molière, 67200 Strasbourg, gertraud.orend@inserm.u-strasbg.fr. Web site: http://u682-inserm.u-strasbg.fr.

British Society for Matrix Biology
Spring Meeting

Advances in Musculoskeletal Repair and Regeneration

Wills Memorial Building, University of Bristol, UK

11-12 April 2011

Local Organisers: Dr Wael Kafienah and Prof Anthony Hollander

Confirmed Plenary Speakers:
Gordana Vunjak-Novakovic (Columbia University), ***Molly Stevens*** (London), ***Michael Buschmann*** (Montreal), ***Susan Chubinskaya*** (Chicago), ***David Butler*** (Cincinnati), ***Clemens A. Van Blitterswijk*** (The Netherlands), ***Johnny Huard*** (Pittsburgh), ***Doris Taylor*** (Minnesota) and ***Karl Kadler*** (Manchester)

BSMB
BRITISH SOCIETY FOR MATRIX BIOLOGY

Fell-Muir Award (***Bruce Caterson***, Cardiff)

For more information visit: www.bsmb.ac.uk

University of BRISTOL






7th International Conference on Proteoglycans
Sydney, Australia
16th – 21st October 2011

http://www.gsbme.unsw.edu.au/proteoglycan2011

Convenors
John Whitelock (Sydney)
Amanda Fosang (Melbourne)

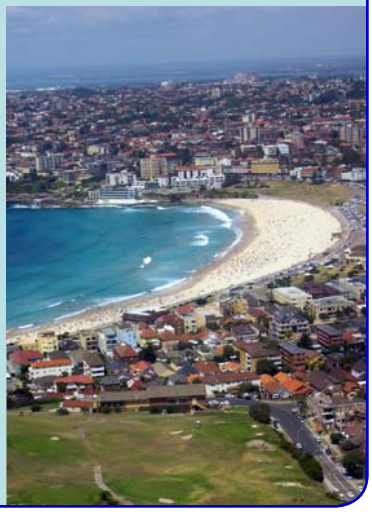
Australian Committee
Craig Freeman (Canberra)
Deirdre Coombe (Perth)
James Melrose (Sydney)
Megan Lord (Sydney)

International Committee
Robert Linhardt (New York, USA)
Jerry Turnbull (Liverpool, UK)
Kazuyuki Sugahara (Sapporo, Japan)
Sally Stringer (Manchester, UK)
Hugues Lortat-Jacob (Grenoble, France)
Tony Day (Manchester, UK)
Hideato Watanabe (Aichi, Japan)
Sarah Knox (Bethesda, USA)
Daisy Shum (Hong Kong)
Jacob van den Born (Netherlands)

G'day!

Come down under in October 2011 and join us at the 7th International Conference on Proteoglycans in Australia's famous harbour-side city, Sydney; home of extravagant wild-life and a relaxed beach culture that enjoys plenty of sunshine and tasty BBQs.

Proteoglycan 2011



Matrix Biology 29 (2010) 441

Contents lists available at ScienceDirect

Matrix Biology

journal homepage: www.elsevier.com/locate/matbio

From the Editor's Desk
Poems from a garden so sweet

Dear readers of Matrix Biology,

In a previous editorial (Matrix Biology 24, 1–2, 2005) I tried to describe the intense emotional bonds that can tie matrix biologists to the extracellular matrix and the joy and frustration associated with attempting to understand how cells – the ultimate matrix and systems biologists – use matrix molecules to accomplish their tasks. The interactions and functions of the macromolecular fabric of proteins and proteoglycans, the results of a billion years of evolutionary testing and development, are complex and challenging to study. In the editorial I described the situation this way: *"Everything is attached to everything else pretty much characterizes the organizing principle behind these interactions or, stated more crudely, "it is a mess". For matrix biologists it is, of course, a "holy" mess; a mess that intrigues and delights"*. In attending a recent meeting on proteoglycans – one of those no-print, no-recordings, no-references summer meetings one leaves with itching mosquito-bites and sleep-deprived red eyes, but with a smile and fond memories of summers past – I learned that extracellular matrix continues to intrigue and delight. It can stimulate the generation of beautiful data and the crafting of well-written scientific papers and it can set poetic talents on fire as illustrated by the two poems below. Sometimes, what needs to be said can best be expressed by poetry.

*O Proteoglycans!**
by Matthew A. Nugent

O Proteoglycans! My Proteoglycans!
our secret love you've won
With sugar sweet and such long chains,
on a column we often run.
Why must you hide your wonders from
those who grant the funding?
We question you with steady minds,
even as your story becomes daunting.
But O Glycan! Glycan! Glycan!
O the clotting you stop best.
Along your chains where sulfates lie,
precisely where is our great quest.
O Proteoglycans, my Proteoglycans,
rise up and show your purpose.
Rise up, for it is getting late, and we
are growing nervous.
For you those sugar chains and protein core,
for you the cells are crowding.
For you they say you're too complex
their simple minds are closing.
Here PGs! Dear friends!
I realize now, only nature knows the truth.
It is time for you to show us now, before
we've gone and lost our youth.
O friend you do not answer,
your lips are quiet and still.
You glance and nod to show your brother,
HA the space he must fill.
All alone with no protein linked
to keep him warm and safe.
I wonder why we let him in our club,
for isn't he a waif?
Ah no, he is a friend as well
with secrets of his own.
He guards these truths so fiercely now,
that never freely will he tell.
Ah my friends, as time goes by
there is just one thing I see
That you will be here longer still
beyond the time of me
That you will be here longer still
beyond all the time of we.

*Meter inspired by Walt Whitman's *O Captain! My Captain!*

GAGs: Ace in the Pack of Surprises
by Tim Hardingham

At the last ever PG Gordon, the secret of GAGs was revealed.
It seems that they came from a distant terrain and crept into our genome unseen.
By not being clear about what code was where, scientists gave them barely a thought.
So GAGs langoured low, unfashionably slow, with an impact close to nought.
However!
When science's easy tasks were all over and there was only left tough nuts to crack.
In strode the brave GAG code breakers, – boom boom! they knew they were on the right track.
With a fearless and bold disposition and no thought of glory or fame, they deciphered GAGs' enigmatic code and uncovered the clue to the game.
It lay in a simple riddle, how long is a piece of string and if you put on it a sulphated bonnet,
how cute it can look and can sing.
So GAGs sing on, in song after song and harmonise at multiple levels
As they trill to the tune and croon to the moon and choreograph cell-matrix signals.
The lesson is clear, don't ignore what's there, take it and give it some time.
It may look like a turd, but if it sings like a bird, it's something to check and refine, for it could be a GAG with a mystery tag… and you know that would be sublime.
So lets finish the dream now we're serene and thinking of Nobel Prizes,
for one day we all know GAG coding will show its biology's ace in the pack of surprises.

0945-053X/$ – see front matter
doi:10.1016/j.matbio.2010.08.004