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British Society for Developmental Biology www.bsdb.org

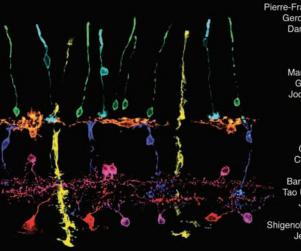


British Society for Developmental Biology British Society for Cell Biology

Joint Spring Meeting 2013

17-20 March 2013 University of Warwick UK

Dave Adams Kathryn Anderson Andreas Bergmann Anna Bigas Mario de Bono Sarah Bray Cathrin Brisken Juan Burrone Guillaume Charras Gaudenz Danuser Jyotsna Dhawan Maria Dominguez Freek van Eeden Tario Enver Jenny Gallop Darren Gilmour Christine Holt Martin Howard Ludger Johannes Gerd Jürgens Tarun Kapoor Robb Krumlauf Patrick Lemaire



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Plenary lectures by

Olivier Pourquie and David Drubin

Topics include: Epithelia and Mechanosensing, Cell Cycle and Death, Motors and Morphogenesis, Trafficking, Gene Regulation, Cancer Models, Stem Cells and Regeneration, Neurons and the Nervous System BSDB Spring Meeting 17-20 March 2013 University of Warwick



BSDB Newsletter. Vol. 33, No 2 Winter

Editorial

In this issue, we hear again from Stephen Freeman writing in the 'Post-doc column' about his experiences working in Japan and we have an article from the BSDB Spring meeting poster prize winner, Stephen Fleenor, who writes about his trip to the SDB meeting in Montreal.

As ever, your contributions and feedback are welcome.

Malcolm Logan mlogan@nimr.mrc.ac.uk

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From the chair





Liz Robertson BSDB Chair

'Sir John Gurdon.. guest of honour..at the Spring meeting in Warwick.'

'motion on the 2013
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and Stem cell Biology
(BSDSB).'

Chair's Report

It's a unique privilege to be the Chair of the BSDB when the scientific contributions of one of our longest standing members is acknowledged by the award of the Nobel Prize. On behalf of our membership it's a great pleasure to congratulate Sir John Gurdon, who together with Shinya Yamanaka was awarded the 2012 Nobel Prize in Physiology or Medicine in Stockholm this past December (http://www.nobelprize.org/nobel_prizes/medicine/laureates/2012). I'm delighted to let you know that John has kindly agreed to be our guest of honour at the Conference Dinner at the Spring meeting in Warwick. We look forward to celebrating the award and congratulating John in person in March.

One of the other memorable events of 2012 was the annual AGM, at which the main agenda item was a motion proposed by Kim Dale and Fiona Wardle to change the name of the Society to include "Stem Cells". We had a lively debate and exchange of opinion, curtailed only by the necessity to eat dinner before the evening session, and as many of you know while the majority voted in favour of a change, the motion was defeated as a two thirds majority is required to change the constitution. Since the AGM, the committee have received considerable feedback from members about how this was handled. For example some were taken aback about the lack of prior knowledge of the debate and who would have otherwise attended, others thought there was insufficient time to fully air the complex issues, while yet others were concerned that the motion lacked clarity about the new name being proposed. In light of this feedback and the extremely close decision, at the Autumn committee meeting we decided that this was too important an issue not to revisit. After considerable discussion we feel the best way forward is to debate a more focused motion on the 2013 AGM agenda, namely that we change the title of our society from British Society for Developmental Biology (BSDB) to the British Society for Developmental and Stem cell Biology (BSDSB). The time for debate will be limited to one hour with equal time given to those speaking both for and against the motion. All members of the BSDB are entitled and encouraged to attend the AGM which is scheduled for 6.00pm on the evening of March 19th, so please feel free to come along, even if you are not registered for the meeting. We welcome everyone's input on this very important decision.

After discussions with Jordan Raff and colleagues at the BSCB we've come up with a slightly different structure for the Joint Spring meeting, which hopefully will go a long way to solving some of the bottlenecks. The main change is that the Gradu-

ate Symposium is moving to the first afternoon, while the meeting will close with a joint session on Wednesday morning, which includes the Beddington Medal presentation. The organizers have assembled an outstanding line-up of Speaker and Chairs, and we're hoping for a record turnout.

Also for those of you who have had quite enough of the interminable wet UK weather, I hope you will consider registering for the up-coming International Society for Developmental Biology Meeting being held in Cancun, Mexico, June 16-20th. Many of you will remember the success of the last ISDB meeting hosted by the BSDB, when over 1500 delegates from around the word joined us at the Edinburgh Conference Centre. Members of the BSDB are entitled to discounted registration costs and can apply for travel grants to off set the costs of attending. Checkout the programme at the SDB website (www.sdbonline.org).

In closing, a very big vote of thanks to James Briscoe who finished his term of office as the Meetings Officer in the Autumn, and is being replaced by Josh Brickman. James hard work behind the scenes has ensured the success of the last 5 years of Spring and Autumn meetings, held in a variety of European venues and engaging a number of our sister societies including the French SDB and most recently the Japanese SDB. We owe James a few drinks at Warwick!

Liz Robertson

Treasurers report Winter 2012

Treasurer's Report

The last financial year (August 2011-July 2012) has been successful. The Society funds have increased by just over £10,000, due partly to an increase in the value of the Society's investments (£5K) and an overall surplus of £5K on the running budget. This surplus was largely due to the hard work of all those involved in the 2011 Spring meeting in Kent which eventually returned a surplus to the Society of just over £9K. This reflects our efforts to maintain commercial sponsorship and support despite a testing economic environment. Otherwise the budget for last year balanced expenditure and income. We gave out a total of £37,625 in grants to BSDB members to attend the Spring and Autumn meetings (79 grants for the Spring meeting in Warwick, 15 grants for the joint meeting with EMBO in Oxford) and £31,970 in BSDB/CoB awards which enabled 78 members to attend overseas meetings. The total amounts awarded were slightly greater than the income generated by membership fees (which remained constant at around the £32K mark) and the £30K provided by CoB specifically for the BSDB/CoB awards. The other major outgoings were direct support for own own meetings (e.g., venue hire, speaker travel costs) which came in at a total of just over £18K. Our expenditure (and income) for the Autumn 2011 meeting was limited since our sister society in France took on the main organizing role. There was a similar situation for the Autumn 2012 meeting in which EMBO played a large role (i.e., our main outgoings for these meetings were via BSDB grants which enabled members to attend). Expenditure on administration was higher than normal this year due to two exceptional items: firstly, we hired professional help to revamp and upgrade the BSDB website, which is now greatly improved; secondly, we have purchased new software which enables the Secretary and Treasurer to update and search the Society database in a much more efficient manner. This has also enabled us to verify most of the membership so that (hopefully) the database is now accurate and up-to-date. These major outgoings were largely supported by the block grant of £35K provided by CoB to the Society, for which we are, as ever, extremely grateful.

To conclude, the Society remains in a healthy financial situation.

Andrew Fleming 24th October 2012

Please Note.

Only members paying the correct subscription to the Society will be eligible for a Travel Grant

Louie Hamilton Fund

There is a small amount of money available from the Louie Hamilton Fund to provide travel support for handicapped members.

Applicants should contact the Treasurer.

Secretary's report



Secretary's report

As the end of my tenure as Secretary of the BSDB draws near, it seems appropriate to present a brief summary of the BSDB membership, the constituency that I have welcomed to the Society and from whom I have fielded numerous enquiries. This snapshot indicates both the health and breadth of the BSDB. Membership numbers of the BSDB continue to be buoyant and currently there are 1186 paying members. Each year the Society receives many new membership applications from the Developmental Biology community. In 2012 we welcomed 153 new members to the Society, and in the first two weeks of 2013 a further 27 membership applications have been received. Many of these are new PhD students, who are strongly encouraged to join the BSDB. This can be a significant aspect of their graduate training. They are warmly welcomed to our annual Spring Meeting where they can immerse themselves in a diverse meeting with a high quality line-up of international speakers. Importantly, they can attend at low cost by applying for a BSDB travel grant to cover most/all of the registration fee.

The new members of 2012 comprise a broad church, both in terms of where they work and their research interests. There were many applicants from the larger centres: more than ten from each of Cambridge, KCL, Manchester and UCL. There were also more than five from each of Aberdeen, Edinburgh, NIMR, Oxford, Sheffield and UEA. The geographical diversity of the membership was further reflected in applications from many other institutions: Bangor, Bath, Cardiff, Dundee, Imperial College, Liverpool, Newcastle, Nottingham, Portsmouth, St Andrews, Sussex, Warwick and York. The large majority of applications were from the across the breadth of the UK, but we also welcomed a total of 13 new members from outside the UK (from Belgium, Chile, Denmark, Germany, Ireland, Japan, Poland, and Switzerland). New members include their research interests on their application form. These demonstrated a broad diversity and also illustrated how Developmental Biology sits at the nexus of many subject areas. The two most common topics were different aspects of the large disciplines of neurobiology and stem cell biology. Other frequently described topics were cardiovascular development, epigenetics, evolution, haematopoiesis, induction, muscle, regeneration and wound healing, and signalling. Other research interests embraced diverse classical topics of Developmental Biology (asymmetry, craniofacial development, limb development, hox genes, neural crest, and segmentation) and a range of topics with a more cell biological emphasis (aspects of gene expression, cancer, cell cycle, cell migration, cell polarity, and cilia).



SDB Annual meeting 2012 report

SDB Annual meeting 2012

Montreal

Needless to say, I was honoured and thrilled to represent the BSDB at this July's 71st annual SDB meeting in Montreal. And though my expectations were inflated by my excitement for being given such an amazing opportunity, the breadth and quality of the science presented did anything but disappoint.

The conference was jointly held in association with the Sociedad Española de Biología del Desarrollo (SEBD), which contributed several excellent poster and oral presentations throughout the conference. Not the least of these was from the SEBD President, Angela Nieto, who showed an exciting new mouse renal cancer model able to be activated and reversed by modulation of Snail1 activity.

Angela welcomed the conference with Mike Levine, the Chair and SDB President, and together they introduced an intriguing evening of plenary talks that progressed up the evolutionary scale as the evening carried on. Nicole King began one billion years ago at the very origins of multicelluarity with the choanoflagellate S rosetta, the closest living ancestor of metazoa. She revealed tantalising evidence of a role of bacterial signalling in promoting the transition of S rosetta to a multicellular-like colony. Many years later in metazoan evolution, Andy McMahon described his work on early dorsoventral neural tube patterning by finding novel Gli binding sites which are activated or repressed in response to the Shh gradient. Lastly we were amazed and entertained with Elaine Ostrander's presentation of her work on a less conventional model system, the common dog. Thanks to years of strict inbreeding by humans into a wide variety of forms (as divergent as the Chihuahua from the Mastiff), she has been able to identify many developmental gene associations that account for features such as weight, body size and even craniofacial morphology. While the science was great, it was hard to decide whether I was more delighted by her results or her hysterical stories of dealings with feisty purebred dog owners.

The conference was structured with three concurrent sessions in the morning, followed by an afternoon of posters and a plenary session to close the day. The concurrent sessions were grouped by topic, ranging from gene regulation and evolution to developmental cell biology. Not only did the talks reveal new insights in basic developmental mechanisms, but they also demonstrated cutting-edge techniques that push the boundaries of modern resolution.

Highlighting this was the imaging presented by Maria Barna, who used a custom-built spinning disc to image mesenchymal cells of the limb bud of cultured chick embryos. With microscopic precision coupled to live-cell in vivo imaging, she unveiled previously unseen length and dynamism of mesenchymal filopodia, and was able to record transport of Shh along these filopodia for long-range signalling.

Maria's findings were exciting, but the quality and novelty of the work was on par with many of the presentations given over the three days of the conference. The posters too were excellent, and my only regret is that I was not able to closely see the majority of them. It was easy to agree with Laura Gammill, who presented the five poster winners on the final evening, that the winners were judged out of a large pool of close contenders. I had the pleasure of speaking with the first prize winner, John Young (Richard Harland's lab), and look forward to seeing him at the 2013 BSDB Spring Meeting.

On the final evening Cliff Tabin and Antonio Garcia Bellido were awarded with the Edwin G Conkin Medal and the Developmental Biology-SDB Lifetime Achievement Award, respectively. In addition, I was particularly inspired by Steve Farber's presentation on behalf of himself and Jamie Shuda for receiving the Viktor Hamburger Outstanding Educator Prize. Steve and Jamie are responsible for developing and running BioEYES, a primary and secondary school education programme that uses zebrafish to teach developmental biology and basic scientific practice. The success of the programme over the past decade is marked by its dramatic expansion of funding and influence, and was tear-jerkingly seen in the several videos Steve showed of the students' responses. As it has primarily reached out to lower-income and minority schools, the programme has affected the lives of thousands of students and teachers by inspiring a profound appreciation and interest for science.

Back here in the UK, I can say unhesitantly that the meeting was well worth the flight and a thoroughly enriching experience. Of course, I am extremely grateful to the BSDB and the SDB (particularly Ida Chow, who helped organise the conference). I anticipate the 2013 conference, regardless of its balmy location, will be an equally excellent meeting.

Stephen Fleenor

The winner of the Poster prize at the BSDB Spring meeting is awarded a fully-funded trip to the SDB annual meeting. The 2012 Prize winner, Stephen Fleenor, reports on his experience of attending the 71st SDB Annual meeting in Montreal

BSDB Spring Meeting 2013



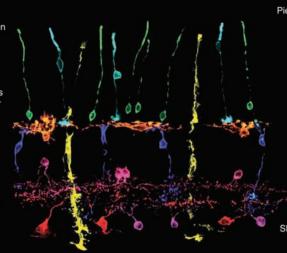


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Topics include: Epithelia and Mechanosensing, Cell Cycle and Death, Motors and Morphogenesis,Trafficking, Gene Regulation, Cancer Models, Stem Cells and Regeneration, Neurons and the Nervous System

Scientific organisers: Keith Brennan, James Briscoe, Andrew McAinsh, Stephen Royle, Jean-Paul Vincent, Fiona Wardle

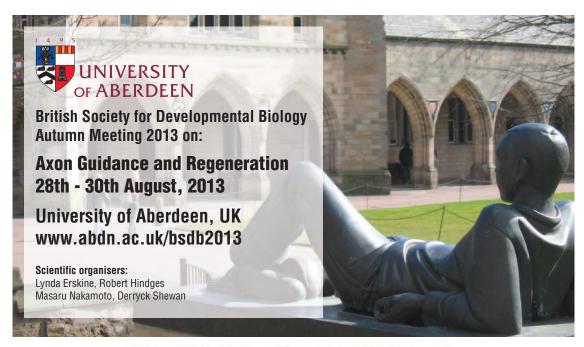
Image by Brzezinski et al. Development 138(16): 3519

http://www.bscb-bsdb-meetings.co.uk/





Upcoming meetings





BSDB Autumn meeting 2013

Axon Guidance and Regeneration 28th-30th August 2013 University of Aberdeen www.abdn.ac.uk/bsdb2013

Organisers: Lynda Erskine Robert Hindges Masaru Nakamoto Derryck Shewan

Plenary lectures from Carol Mason and Christine Holt

Confirmed speakers include:

Catherina Becker, PaolaBovolenta, Frank Bradtke, Alain Chedotal, Charles Ffrench-Constsant, Eloisa Herrera, Philip Gordon-Weeks, Artur Kania, Roger Keynes, Iris Salecker



Travel grants (Company of Biologists Travel Awards)

BSDB Spring and Autumn meetings

These are the only UK meetings for which there is BSDB support. Grants cover cost of registration (but not conference dinners) and basic travel if funds permit. Generally we are receiving more applications than we can fund in full and preference is given to student members who present posters. BSDB members based abroad are eligible for a contribution (max. £400) to attend our meetings. All applications for travel grants to attend BSDB meetings must be in the hands of the Treasurer by the published deadline.

Overseas meetings

There is considerable demand for funds to travel to meetings overseas. Applications are collected each month and a decision on awards made at the end of the month with funds awarded according to the remaining budget. To allow us to fund as many applicants as possible we are currently limiting awards to a maximum of £400. Preference is given to members presenting work at the meetings.

Practical courses

The BSDB will also provide funds up to a maximum of £500 for members to attend courses or to visit laboratories overseas. These applications are considered alongside those for overseas meetings.

I process the applications as rapidly as I can but it can be 6–8 weeks after you submit an application before you are notified of your award. Please note that I do not make funds available to attend meetings that have already taken place when I come to consider the applications. Please bear this in mind and submit your application at least two months before the start date of the meeting.

Subscription information

Full members £35 per annum Student members £15 per annum

Applying for a travel grant

Members should complete a Travel Grant Application form and send it to the Treasurer. Forms can be downloaded from the BSDB website: www.bsdb.org. Applications for overseas meetings are advised to be submitted 3–4 months in advance so that the BSDB contribution can be used as a lever to prise the rest of the money from other sources. Grants will NOT be awarded in arrears.

Please note: Nobody will be awarded more than one travel grant per year for an overseas trip. No more than two people from one department or one person from a group will be awarded a grant to a particular meeting. Also, due to our charitable status, the purpose of any award must be clearly identifiable as Developmental Biology.

Please Note.

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8th European Zebrafish Meeting



9-13 July, Barcelona, Spain

www.zebrafish2013.org

Topics

Advances in Imaging
Patterning and Cell Signalling
Morphogenesis and Organogenesis
Brain and Neural Crest Development
Disease Models
Breeding and Husbandry
Skeletomuscular and Craniofacial Development
Gene Regulation and Genomics
New Technologies for Gene Manipulation
Stem Cells and Regeneration

Physiology and Disease
Cardiovascular Development
Endoderm
Evolution
Circuits and Behaviour
RNA World
Cancer
Sensory Systems
Cilia and Cell Polarity
Toxicology and Drug Screening

Organizing Committee

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Advisory Committee

Koichi Kawakami, National Institute of Genetics, Japan Didier Stainier, Max-Plank Institute, Germany Leonard Zon, Boston Children's Hospital, US



Abstract submission deadline: 24 March 2013

Venue: Palau de Congressos de Catalunya

Early registration deadline: 30 May 2013

contact:congress@aopc.es

Graduate Student Column

With the New year ahead of us it is a time of reflection when we can plan experiments for the coming year with enthusiasm (or when we promise we will finally do that experiment that was planned last year!)

Details are being finalized for the forthcoming BSCB/BSDB Spring Meeting in Warwick 17-20 March 2013. This year's Student Symposium will be extended and will take place in the afternoon of the 17th, immediately before the start of the main meeting. I do hope to see you there. It is a great opportunity to get to know other graduate students, learn about other related subjects and make connections with your own work. We are very happy to announce that Professor Robb Krumlauf (Director of the Stowers Institute for Medical Research, USA), has accepted to chair the Student Symposium! Don't forget to submit your abstract for the main meeting and/or the student symposium by January 18th – see details at http://www.bscb-bsdb-meetings.co.uk/dates.htm

Finally, I also want to wish you all a fabulous New Year.

Jorge V. Beira jbeira@nimr.mrc.ac.uk



Stephen Freeman Riken CDB Kobe Japan

Post-Doc Column

Well, blimey, once again the year seems to have flown by faster than those neutrinos managed to hop from Switzerland to Italy. 2012 proved to be a cracking year for science, with the discovery of the Higgs Boson and the (ongoing) success of the Mars Curiosity rover expedition being particular highlights. Closer to our own stable, it was a good year for developmental biology too, with John Gurdon and Shinya Yamanaka winning the Nobel Prize in Physiology or Medicine for their work on nuclear reprogramming and the development of IPS cells. Just desserts for pioneering work that shows development does not only run in one direction, and has opened up a whole new line of research that could benefit regenerative medicine. Proof if proof were needed that basic research is the heart of all good science (and that high school science teachers can be very wrong).

From good science to sheer lunacy, now, because as I write this article it seems like the world has gone Mayan-mad. Apparently, in just a few days from now a magnetic pole reversal/greedy black hole at the centre of the milky way/resurrection of the dinosaurs/alien invasion/all of the above will have caused the end of the world as we know it. Leaving only a bunch of Mayan ghosts and possibly Michael Stipe with smug looks on their faces.

However, despite secretly hoping dinosaurs turn up on the 21st, I'm putting my money on it all being a lot of hogwash, and am sure the world will still be around for me to enjoy my turkey on Christmas day. Which is the best segway I can think of to start talking about birds. Not turkeys per se, but chickens. This is maybe not as tenuous a link as it sounds, since here in Japan, thanks to a successful advertising campaign in the 1970's, a large number of families head to KFC for a Christmas day feast. Anyway, this is all leading towards the fact that in November I attended the 7th International Chick Meeting, in Nagoya, and I'd like to tell you a little bit about it.

In truth the "Chick Meeting" is a bit of a misnomer these days, and the running title was "Avian Model Systems", which was nice to see since research using a whole range of avian species was presented. The meeting was a 5-day marathon, which might sound a little daunting, but in the context of avian developmental biology it was actually quite heartening to see such a full programme. In recent years avian model systems have at times felt a little in decline. Although beautiful for the more classical developmental studies, they have lagged behind others due to a lack of easy, reliable techniques for genetic manipulation. But now they are catching

up, and it was encouraging to see an entire session devoted to primordial germ cells and transgenesis, with a number of speakers showing some fantastic pictures of fluorescent, transgenic birds.

With 5 days, there was enough time for a broad spectrum of session themes. The sessions that focused on birds and evolution and the session on avian behaviour were particularly fun. The evolution session benefitted from a really engaging and entertaining keynote lecture from Makoto Manabe from Japan's National Science Museum. He spoke in detail about the processes involved in the analysis of dinosaur fossils, and how comparisons with the skeletons of modern birds gives us insights into the evolution of the various bird families. Covering a wide range of research themes was a great idea – it helped to break up the intensity of the meeting, so that it was not a constant barrage of information directly related to your own research topic. It gave a wider sense of perspective and a greater appreciation of the various ways avian systems can be used to answer different research questions. Plus it was just cool to look at loads of pictures of dinosaurs.

It was also great to see a large number of post-docs and students being given lecture slots to present their research. Some meetings can feel a little exclusive endless waves of PI's giving lectures on published data - but here there was a really good mix, and a large amount of unpublished and unfinished work was presented. This led to a livelier atmosphere during the social events, and there was a general feeling of a community of researchers pulling together. This sort of thing shouldn't be underestimated. I'm sure lots of young post-docs think "what on earth have I got myself into" on a regular basis, so things such as lively poster sessions full of people who are interested in your research help remind you of some of the good things about science - the curiosity, the buzz of discovery, of sharing your ideas. And the dinosaurs, did I mention the dinosaurs?

COB member benefits



COB member benefits





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Jordan W. Raff – Milstein Professor of Molecular Cancer Biology, University of Oxford, UK.

Read BiO



Interactions between type ill receptor tyrosine phosphatases and growth factor receptor tyrosine kinases regulate tracheal tube formation in Drosophila Mill Jeon, Matthew P. Scott, and Kai Zinn

Drosophila Syncrip binds the gurken mRNA localisation signal and regulates localised transcripts during axis specification Suzanne M. McDermott, Carine Meignin,

Interactions between the amnioserosa and the epidermis revealed by the function of the u-shaped gene Karolina lada, Nicole Corfinkiel, and Alfonso Martinez Arias



Culture parameters for stable expansion, genetic modification and germline transmission of rat pluripotent stem cells Kathry Blair, Harry G. Leitch, William Marsfield, Charles-Etienne Dumeau, Peter Humphreys, and Austria G. Mand Austria G



Submit to BiO

Submit Direct: Authors are encouraged to submit work of appropriate scope and focus directly to BiO, in which case peer review will be undertaken and managed by an international board of academic editors.

Transfer Option: Authors who have made their original submission to Development, Disease Models & Mechanisms, Journal of Cell Science or The Journal of Experimental Biology can benefit from our simple manuscript-transfer option should their paper not be accepted. Under this service, referees' reports from the original peer review can be passed to BiO for a more rapid publication service.

For more information on BiO, visit bio.biologists.org









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Subscription Journals

	Print 2013	Online 2013	Print + Online 2013
Development			
USA/Canada/Mexico	\$519	\$135	\$635
UK/ROW	£298	£77	£364
Europe	€ 447	€ 116	€ 547
	Print 2013	Online 2013	Print + Online 2013
Journal of Cell Science			
USA/Canada/Mexico	\$443	\$115	\$541
UK/ROW	£252	£66	£308
Europe	€ 380	€ 99	€ 464
	Print 2013	Online 2013	Print + Online 2013
The Journal of			
Experimental Biology			
USA/Canada/Mexico	\$432	\$112	\$528
UK/ROW	£248	£64	£304
Europe	€ 353	€ 92	€ 432

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Biology Open

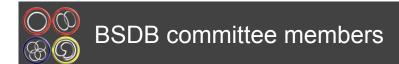
www.open.biologists.org

OPEN ACCESS, Online Only, Launched - September 2011

Publishing original research across all aspects of the biological sciences including cell science, developmental biology and experimental biology. The journal aims to provide rapid publication for peer reviewed scientifically sound observations and valid conclusions in these allied fields.

Disease Models & Mechanisms dmm.biologists.org

OPEN ACCESS FROM 2011



The main function of the BSDB Committee is to organise our meetings, from deciding on appropriate topics to arranging organisers and venues. If you have any ideas on topics for a good meeting, or on a good venue, don't hesitate to convey them to Josh Brickman (or another committee member). The officers of the Society will be happy to answer any questions relating to their specific subjects.

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