

# BSDB Newsletter

British Society for Developmental Biology

[www.bsdb.org](http://www.bsdb.org)

Winter 2011  
Vol. 32, No. 2

**BSDB - British Society for Developmental Biology**  
*The UK society promoting developmental biology*

Home About us News & events Awards Membership Resources Image gallery Contact us

### New website for the Society

We have a new website and we'd love to know what you think

You are here: Home

The BSDB is a society open to everyone with an interest in the science of developmental biology. We have more than 1,000 members, including researchers of all levels, lecturers, and students.

**Our next meeting will be the 2012 Spring Conference in April 2012**

The 2012 Spring Conference is a joint meeting of the British Society for Cell Biology, the British Society for Developmental Biology and the Japanese Society for Developmental Biologists and will take place at Warwick University, from 15-18 April 2012.

**SEARCH**

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**LATEST** **POPULAR**

- 2012 Spring Conference  
OCTOBER 27, 2011
- A new website for the BSDB  
OCTOBER 27, 2011
- BSDB Newsletter - Summer 2011  
JULY 20, 2011
- BSDB 2011 autumn meeting  
JUNE 15, 2011
- Waddington Medal awarded to Chris Wylie  
MAY 20, 2011

**CATEGORIES**

- Meetings
- News
- Newsletters

The Company of Biologists is the not-for-profit publisher of Development, Disease Models & Mechanisms (an Open Access journal), Journal of Cell Science, The Journal of Neurocytology and Neurocytopathology (JNC), and Open Access Journal of Cell Biology.

**THE COMPANY OF Biologists**

The BSDB gets a new website!  
[www.bsdb.org](http://www.bsdb.org)

**Also in this issue:**

- more reflections on taking a post-doc position abroad
- BSDB Spring Meeting 15<sup>th</sup>-18<sup>th</sup> April 2012 University of Warwick.

## Editorial

Happy New Year! I apologise for the Winter 2011 Newsletter arriving in early 2012.

In this issue, in his second contribution to the newsletter in the form of our Post-doc column, Stephen Freeman writes about his initial experiences after taking up a new post-doctoral position at the RIKEN Institute, Kobe, Japan.

Continuing with a Japanese theme, the next BSDB Spring meeting is being held jointly with the British Society for Cell Biology (BSCB) and the Japanese Society for Developmental Biologists (JSDB) at Warwick University 15-18 April 2012. See Page 7 for details. We hope to see you there for what should be a great meeting.

*Malcolm Logan,*  
*mlogan@nimr.mrc.ac.uk*

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### **Help us spread the word**

*Please print out a copy of this newsletter and leave it in a strategic place, such as your coffee room or staff room.*

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### **Cover image**

*Screen shot of the new BSDB website.*

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## From the Chair



The main purpose of our Society is to bring the membership together via our two annual meetings, so we've been discussing ways we can ensure the continuing success of this activity. A quick update on the future of our Spring meetings. After extensive discussions with our colleagues from the BSCB there was unanimous support to "re-formalize" our tradition of the joint Spring meeting. Starting in 2013 we're also going to make a few tweaks to how the topics and speakers are chosen and structuring the programme to afford the maximum flexibility and attendance at the sessions, exhibitor stands and posters etc. After reviewing the pros and cons of the various venues we've tried over the past decade, there was also a universal consensus that it would make sense to ground the meetings at the University of Warwick for the next few years. With the recent news story that one's brain starts deteriorating at the age of 45, it's also less stressful for the older members of the Society to make the annual pilgrimage to a familiar setting so we know exactly where to find the essentials. The layout at Warwick is very convenient since the two lecture rooms are a stone's throw apart encouraging hopping between sessions. The exhibition space is large, airy and ideal for interleaving posters and exhibitor stands. The Arts Centre also has the additional advantage of comfortable seating areas for break out discussions, plus a nice coffee bar. The accommodation is excellent as long as you remember to shut your room windows to keep the thieving magpies out. On the down side packing a sturdy brollie is a must - it might only be a short walk from Halls to the meeting rooms but with the wind gusting seemingly ever stronger around the top of Gibbet Hill, the weathering the Spring showers can be a challenge.

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*"After extensive discussions with our colleagues from the BSCB there was unanimous support to "re-formalize" our tradition of the joint Spring meeting"*

An important event this coming April is the Annual General Meeting. Please do all come along and participate. As you

know 2012 is a year of big elections around the world, and the same is true for the BSDB! We need to elect three new committee members, so please consult with your colleagues, find some willing volunteers and send in nominations to Mike Taylor. While the duties of being on the Committee are not very onerous, we take our responsibilities seriously since we are a completely "self run", low budget organization. Duties are split up between the members and range from becoming one of the Officers, taking the lead in organizing spring and autumn meetings, soliciting support from vendors to designing origami (well done Malcolm!). I would also ask you to think hard about proposing agenda items for general discussion. Should we consider paying the Chair a salary? Should we be seeking Royal Patronage (but would we stand a chance having boycotted the wedding last year?). More seriously should we discuss possibly changing our name and/or adopting a new logo? What should feature on our newly designed web site? It's your chance to have some input into how we do things.

As the New Year starts and daylight lengthens, naturally everyone's thoughts turn to the year ahead, and plans start to be formulated (in my case trying to work out how to escape the UK during the Olympics!). I'd like to remind our junior members of the wonderful opportunities available to them in terms of workshops and courses offered to hone skill sets or pick up some basics in new areas. EMBO always has a stellar line up of workshops and practical courses on offer across Europe (<http://www.embo.org/programmes/courses-workshops.html>). Why not take advantage of one of the advanced "omics" courses run by the Sanger Centre (<http://www.wellcome.ac.uk/Education-resources/Courses-and-conferences/Advanced-Courses-and-Scientific-Conferences/index.htm>). For the hard core embryologists there's also lots to choose from over the summer months. (*continues below*)



Three weeks at the Cold Spring Harbor campus doing hands on experiments with mouse embryos, or an intensive 10 day immersion in stem cell theory (<http://meetings.cshl.edu/courses.html>). Alternatively a 6 week spell at the idyllic Woods Hole Marine Biology labs on Cape Cod at the Embryology Course (approaching its 120<sup>th</sup> anniversary!) learning the ins and outs of a multitude of different embryos (<http://www.mblembryology.org/>><http://www.mblembryology.org>). While the price tags often look daunting (and somewhat off-putting if you have to ask the lab head to pay), bear in mind that most of these offer substantial financial support to offset the costs for successful applicants.

I can say from personal experience as both as student and teacher that participating in courses have been some of the most rewarding experiences of my career. so I would strongly urge you to checkout the web sites and see what's on offer.

Wishing everyone a Happy New Year and all success for 2012, and hope to catch-up with many of you in April!

*Liz Robertson*

## Treasurers report 2010-2011

The financial situation for the Society remains good. Over the last financial year (1st August 2010- 31st July 2011) the total funds held by the BSDB have increased due to the increased value of the Society's investments, the financial success of its meetings and an increase in support from its main sponsor. This financial stability has allowed us to continue to support to all valid applications for assistance and to plan ahead for scientific meetings over the next few years.

In the last year the society provided 83 grants to help people attend BSDB meetings (total value £33780) and 66 Company of Biologists/BSDB travel grants (total value £25862) to enable scientists to attend overseas meetings and training courses. The BSDB travel support provided was slightly higher than previous years, reflecting a good level of interest in the autumn joint meeting with our French sister society in Nice. Funding to cover both travel and registration was provided to ensure that BSDB presence was high. Other than the travel budget, no other call on BSDB funds was made for this meeting. The remaining BSDB travel grants supported the joint Spring meeting with BSCB in Kent. Despite the challenge of holding a meeting in competition with a

Royal wedding the event was a success, with a surplus of almost £10K being returned to BSDB, a reflection of the good work done in attracting sponsors (and a great line up of speakers). The CoB/BSDB travel grant requests and grants were slightly down on previous years, reflecting a trend over the last couple of years.

As a result of the success of the ISDB meeting 2009 the Society gained a significant surplus and the majority of this has now been invested (with advice taken from CoB) in an L&G Global Index Trust which, hopefully, will provide a safe haven to protect the Society's assets. The total assets now held mean that the Society is resilient to any major one-off financial problem with any of its meetings. With respect to income, the membership numbers remain solid and this, together with the generous increase in support for both the Society's block grant and the CoB travel grant, mean that there has been an overall increase in income. Together with the surplus from the Spring meeting, lower than expected costs for the Autumn meeting and lower administration costs the last 12 months have been financially buoyant for the Society.

*Andrew Fleming*

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*"In the last year the society provided 83 grants to help people attend BSDB meetings (total value £33780) and 66 Company of Biologists/BSDB travel grants (total value £25862) to enable scientists to attend overseas meetings and training courses"*

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### ***Are you paying your fair share?***

*We still have a 'hard core' of members who are paying less than they should. Please check your standing order today and update if necessary!*

## BRITISH SOCIETY FOR DEVELOPMENTAL BIOLOGY

## PROVISIONAL FINANCIAL STATEMENT YEAR ENDING JULY 31st 2011

<b>Balance Sheet</b>		<b>Accruals Basis</b>	
<b>2009/10</b>			<b>2010/11</b>
£			£
156,335	<b>Investments</b>		179,555
	L&G Global 100 Index Trust @		50,000
	Baillie Gifford Managed Fund		
	<b>Current Assets</b>		
91,209	Barclays Bank High Interest Account		73,246
27,331	Barclays Bank Current Account		17,197
3,052	Barclays Bank: Louie Hamilton Account (1,2)		3,053
121,592			93,496
10,423	Less: Unpresented cheques 10-11		0
385	Debtors – Creditors		0
111,554	Net Current Assets		93,496
<b>267,889</b>	<b>Total Funds</b>		<b>323,051</b>

**Income & Expenditure Account**

<b>Income</b>	<b>£</b>	<b>Expenditure</b>	<b>£</b>
Membership (Standing Order & PayPal)	31,989	Grants (Overseas & Courses)	25,862
Membership (Cheques)	0	Grants (BSBD Meetings)	33,780
Block Grant (CoB)	35,000	Small meetings and other DB meetings	200
Travel grant fund (CoB)	30,000	Autumn Meeting 2011 (Nice)	0
Autumn Meeting 2011 (Nice)	0	Autumn Meeting 2010 (Oxford)	0
Spring Meeting 2011 (Kent)	10,000	Spring Meeting 2011 (Kent)	13,605
Autumn Meeting 2010 (Oxford)	160	Spring Meeting 2010 (Warwick)	123.70
Spring Meeting 2010 (Warwick)	5139.21	Prizes	159
Unpresented cheques 09-10	465	Committee & administration	6,195
		ISDB membership	0
		Bank Charges	0
		Refunds out	977
Interest and Investment Appreciation:			
Barclays High Interest a/c	38		
Barclays Louie Hamilton a/c	0		
Total Income	<b>112,792</b>	Total Expenditure	<b>80,901</b>
		Net Surplus for the Year	<b>31,891</b>
		Unrealised Gains on Baillie Gifford	23,220
		Fund balance at 31st July 2010	267,889
		Fund balance at 31st July 2011	<b>322,999</b>

**Notes**

These accounts were prepared under the accrual basis convention, in accordance with the applicable accounting standards and Recommended Practice of Accounting by Charities. There have been no major changes to our financial arrangements this year.

1. The Louie Hamilton account valuation is at 14.9.10

2. This is the only restricted account and no call was made on it in the financial year 2010/11



## 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.

## Subscription information

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

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.

### 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](http://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

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### **Hurry!**

***The Deadline for Early bird registration for the BSDB Spring meeting is 23<sup>rd</sup> March 2012.***

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### **Warning!**

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

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### **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.***

Student members that joined the Society in 2006 are reminded that they should upgrade their subscription to the full member rate of £35.

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British Society for Developmental Biology,  
British Society for Cell Biology and  
Japanese Society of Developmental Biologists

## Joint Spring Meeting

15th-18th April 2012  
University of Warwick UK

Duncan Odom  
Erika Sasaki  
Kazuo Emoto  
Eileen Furlong  
Hiroyuki Araki  
Helle Ulrich  
Anindya Dutta  
Julian Blow  
Eliot Meyerowitz  
Toshihiko Fujimori  
Antonio Jacinto  
Ryoichiro Kageyama  
Toru Hirota  
Andrea Musacchio  
Jan Loewe  
Monica Bettencourt-Dias  
Fiona Watt  
Gosdana Vunjak-Novakovic  
Masayuki Yamato  
Keith Barr

Norio Nakatsuji  
Denise Barlow  
Anton Wutz  
Arp Schnittger  
Sally Lowell  
Berenika Plusa  
Josh Brickman  
Shosei Yoshida  
Tatsuya Hirano  
Robin Allshire  
Ana Pombo  
Juri Rappsilber  
Stephan Schulte-Merker  
Anna Philpott  
Alison Lloyd  
Fumio Matsuzaki  
Tamotsu Yoshimori  
Anton Gartner  
Andreas Villunger  
Fabrizio d'Adda Di Fagagna

Plenary lectures by

**Denis Duboule and Richard McIntosh**

*Topics include: Systems biology, DNA replication, Imaging space & time, Cell division, In vitro models of development, Cell growth & differentiation, Chromosome structure & organisation, Cell cycle in development, Cell death, Stem cells*

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



*Scientific organisers: James Briscoe, Kim Dale, Helfrid Hochegger, Malcolm Logan, Andrew McAinsh, Tomoyuki Tanaka, Naoto Ueno*

## BSDB Spring Meeting 2012

15-18 April 2012

University of Warwick

This meeting is being held jointly with the British Society of Cell Biology and the Japanese Society for Developmental Biologists

See poster on p7.

BSDB organisers: Kim Dale and Malcolm Logan.

## BSDB Autumn Meeting 2012

2-6 September 2012.

St Catherine's College, Oxford

The Molecular and Cellular Basis of Regeneration and Tissue Repair

This is a Joint meeting with **EMBO**

Organisers: Enrique Amaya and Paul Martin.

## BSDB Spring Meeting 2013

17-20<sup>th</sup> March 2013

University of Warwick UK

Joint with the BSCB

Organisers: Fiona Wardle and Keith Brennan

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***Ideas for a meeting?***  
*A major task of the BSDB Committee is to host high quality scientific meetings. We welcome suggestions for future topics for meetings or for a half-day themed session at the Spring Symposium. Contact James Briscoe*

For the latest and most comprehensive listing of upcoming meetings go to:

<http://thenode.biologists.com/events/>



## The Graduate Students column

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**Graduate student representative**  
**Jorge Beira**  
*jbeira@nimr.mrc.ac.uk*

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**BSDBook**  
*Visit the 'BSDB graduate student group' at Facebook.com to keep up to date about student events*

This is always a good time to reflect on the past year and what we hope to achieve in the future.

This year I became the Graduate Student representative in the BSDB Committee. I attended my first committee meeting some weeks ago, and finally had the chance to meet committee members in person. It was very nice to participate in discussions regarding the Society's affairs for the near future. The main focus is now on the upcoming Spring meeting in Warwick, April 15-18, 2012. The meeting will be joint between the BSDB, the BSCB and also the JSDB (Japanese Society for Developmental Biologists), which will ensure an even greater international character! There is an excellent list of speakers, so I expect to see many graduate students taking advantage of this event to get to know other people and the work they are doing. Following the success of past student symposia organized together with the BSCB, we will be holding a similar event at the 2012 Spring meeting. The Symposium offers a great opportunity for Graduate students to present their work.

As a student member, you can now register for the conference in April – also, don't forget to apply for travel grants to attend the Spring meeting. The travel grants provided by the BSDB are one of the great advantages of membership to the society so it is a good idea to take full advantage.

You can also join the BSDB graduate student Facebook group, which works as a forum for everyone to keep in touch and share ideas or comments.

As Graduate Student representative I am on the BSDB committee to voice your opinions and ensure your interests are represented so if you have suggestions about what you would like to see in this section, or if you want to produce something, do get in touch. I look forward to hearing from you!

See you in Warwick April 2012.

*Jorge Beira*

*jbeira@nimr.mrc.ac.uk*

## All we have to do is keep talking

So, here I am. 5 months into my post-doc at the RIKEN Centre for Developmental Biology. What have I learned so far? Well, I have learned that boarding the underground doesn't have to be an elbow jabbing melee (the lovely people of Kobe prefer to patiently queue up and then just stroll into the carriage), and that there is no such thing as too much octopus for dinner. My neighbours' desire to help me settle in appears to have no limits, and the parts of Kobe and the surrounding Kansai region that I have explored so far are stunningly beautiful.

But what about life in the new lab? What important lessons have I learned about being a gaikoku-jin (foreign) post-doc? Well, I have just got back from our annual Autumn Retreat, in which almost all of the Riken CDB research community got together on the nearby Awaji Island for two days of scientific show-and-tell. The focus was on getting to know the people from outside your lab, and the research that they do. The result was two days of (occasionally beer fuelled) collaborative brainstorming that has helped my project more than weeks of solo PDF trawling could ever have done.

The whole thing got me thinking about how essential a bit of quality communication with my peers is to my research. Even on a day-to-day level, a timely question here and a bit of brain-

picking there can really make a huge difference. Especially if you are just starting out in a new lab. In fact, when you're the newbie I'd say it's worth going even further than the odd Q&A session here and there – I'd say it pays to act dumb. Now, when I say dumb, I don't mean you should walk around with a vacant expression on your face, reaching for the sodium hydroxide every time someone says "pass the sugar" at tea time. Rather, what I'm trying to say is don't be afraid to ask questions, lots and lots and lots of questions, however dumb they seem. In fact, the dumber they seem, the more important they probably are! The first month or so in a new lab makes you feel a bit like a superhero that has suddenly lost his abilities (like in Superman 2 when Superman relinquishes his powers in favour of a quiet life with Lois, but is then left weak and helpless to protect her when she gets involved in a roadside cafe brawl). You've got all these great ideas, you can't wait to get started and you are anxious to make a good impression on your new lab members. But, hang on, where are the P1000 tips kept? And, err... I'm really sorry, but would you mind showing me how to use this confocal microscope again? As awkward and embarrassing as these questions can seem, getting familiar with your new lab is the first step in getting your new project up and running, so ask, ask and ask again. For me it felt like I spent




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**Stephen Freeman**

Riken CDB  
Kobe  
Japan

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*"My neighbours' desire to help me settle in appears to have no limits, and the parts of Kobe and the surrounding Kansai region that I have explored so far are stunningly beautiful."*

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*“The collective mind is greatest, and I think that asking for advice from others, tapping into the experience of a lab, is really important.”*

the best part of a month doing nothing but trying to get to grips with the layout of the CDB, and I am grateful for the endless patience of my new labmates, who answered every one of my dumb questions with a smile.

Once I finally got the hang of the basics, I started chatting to my labmates (and anyone else that would listen) about my project. And now it is almost unrecognisable from when I first started! The basic questions remain, but the journey I will take to get to the answer is vastly different from the one set out in my original plan. This is no bad thing; it has come about as a result of kicking some ideas around with my new labmates, and then sitting back and listening to what they have to say. Using the experience of others around you is invaluable. As a result I now have a plan that should develop my project in a much more efficient and complete way, and an intriguing collaboration with another CDB lab in the offing!

Sharing ideas and data can be a touchy subject for some. You might have heard some pretty horrific stories from colleagues of stolen data, stolen authorships, and even sabotaged experiments. I have certainly heard my fair share. But I think it is important not to get swept up in the paranoia, because it will only lead to increasing isolation from the rest of the scientific community.

The collective mind is greatest, and I think that asking for advice from others, tapping into the experience of a lab, is really important – especially when you are a young postdoc starting out in a new lab and getting a project up and running.

Of course, it is crucial that you strike a balance between maintaining a healthy focus on the core ideas of your project, and being open to suggestions that may take you down some unexpected avenues. Some of which may lead to nothing more than dead ends. I think the key is to not get too swept up in the advice – but instead to use it as a smorgasbord from which to cherry-pick what you think will be worthwhile. My dear Mum always says that a camel is a horse designed by committee. Now, apart from the fact I think she is being a little harsh on the camel, the point is still worth remembering. If you don't remain in charge of your project, if you let the advice distract you from your research goals, you might end up with a dromedary, not the thoroughbred you had dreamed of. As a postdoc you will be expected to take more control of your research, and this includes taking more critical control of the advice you are given. Having courage in your ideas and decisions is an important part of being an independent researcher.

So remember – it's good to talk. And it is good to listen. Hopefully there will be plenty of both next April, when the BSDB, BSCB and the JSDB join forces for a spring meeting in Warwick (see Page 7 for details). The draft programme is complete and registration is open online. With any luck I will be there, so if you are attending I look forward to seeing you!

*Stephen Freeman*

*stevefreeman5@gmail.com*

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## News from the Node: Games and reflections



Visit:  
<http://thenode.biologists.com/>

*"..we invite societies, such as the BSDB, to use the Node to share news from their local community with the rest of the world, and to reach out to our global readership.."*

This past year marked the Node's first birthday, which we celebrated in style by producing a series of desktop wallpaper calendars using some of the images that were submitted to the Node image competition earlier in 2011 and a few images from the 2010 Woods Hole Embryology course that were contenders in the *Development* cover image voting rounds that also ran this year. You can view the full collection of desktop wallpapers at <http://thenode.biologists.com/desktop-wallpaper-calendars/>

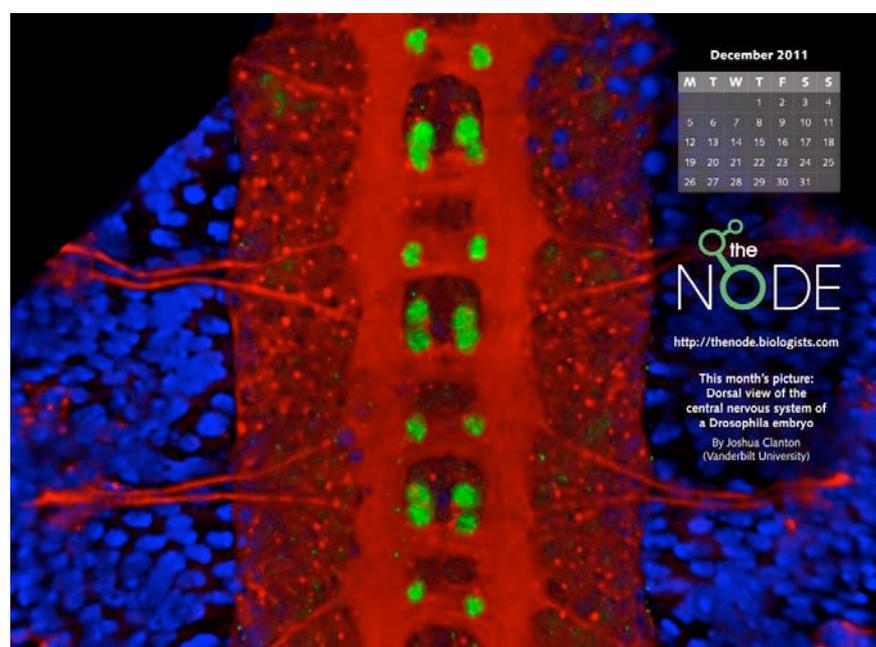
We also carried out a user survey this summer, to find out more about the readers of the Node. A summary of the results is available on the Node: <http://thenode.biologists.com/node-survey-results> including a pie chart of the professional stages of Node readers, showing a very nice distribution between researchers in various career stages. We always intended the Node to be useful for everyone, so it's good to see this

reflected in the survey results!

Finally, the Node is closing a successful year with a little collaborative bingo game. The Node is working together with the website BenchFly to produce a developmental biology version of their series of "Group Meeting Bingo" games. Readers of the Node can suggest typical developmental biology phrases and BenchFly will convert those into a playable game. See <http://bit.ly/DevBioBingo> for more info, and leave a comment to suggest your own words.

As usual, keep using the Node to share and read news from developmental biologists from around the world. With an account you can write updates, start discussions, add job ads and meeting announcements whenever you want.

Eva Amsen  
 The Node Community Manager



## Nice work if you can get it

Meeting Review BSDB Autumn meeting 2011

Held jointly with the FSDB in Nice France

The second joint meeting of the British and French Societies for Developmental Biology was held on the first weekend in September 2011 in the beautiful city of Nice, France. A city famed for its cultural heritage, a more inviting location would be hard to find. (*Apart from Warwick in Springtime, of course. Ed*). The meeting was hosted at the Campus Saint Jean d'Angély, University of Nice Spohia Antipolis, in the Eastern part of the city, a scenic tram ride from the city centre.

### Evolution and Development

The meeting was opened by Stefan Hoppler (Aberdeen, UK), who introduced the first keynote speaker, Cheryll Tickle (Bath UK). Cheryll presented her work on the formation and patterning of the digits in the chick limb. A fascinating start to the conference, the talk was an amalgam of classical embryology, computational modeling and transgenics, a rich mixture that continued throughout the meeting. From avians to nematodes. Ralf Sommer (Tubingen-Germany) explained how the frizzled receptor has changed, showing "rewiring" of signaling pathways already thought to be well established, resulting in differing mechanisms of induction of the same tissue in two different groups of nematodes. Next, an interesting look at the link between how genes pattern tissue and how this links to growth and morphogenesis, and how mapping the anisotropic growth of a tissue with the network of genes expressed in it, can allow for a greater understanding of how genetic information contributes to the overall shape of a developing tissue (Enrico Cohen-Norwich). Then the evolution of a "sixth sense", but no deathly visions here, instead the development of electroreception in fish. New evidence showing a lateral line placode origin of electroreceptors, is ancestral in bony fish (Clare Baker-Cambridge). Finally the role of CyclinG in the developmental stability of *Drosophila*, and how Cyclin G could be playing a role as a central point within a genetic network, maintaining stability of the organism (Frederique Peronnet Paris France).

### Neural Development

The opening session on Sunday began with a keynote lecture from Olivier Pourquie (Strasbourg France). He discussed the segmentation and hox "clocks" and how they pattern the antero-posterior axis of the vertebrate embryo. Subsequent presentations addressed patterning of the fore and midbrain by specific signaling centres (Corrine Houart-Kings College London) and how the Neural crest, can control fore- and midbrain morphogenesis (Sophie Cruzet Paris France) as well as the migration of neurons to other regions of the developing brain (Jo Begbie-Oxford). Beatrice Durand (presented her work regarding contributions of cell death and cell proliferation to forebrain development and how the ratio of cell proliferation and cell death is controlled by Barhl2 regulating Caspase activity. We also heard how axonal branching and sensory neuron connectivity can be controlled by receptor complexes with many isoforms, ensuring specificity of neuronal targeting and branching (Dietmar Schmucker Leuven Belgium)). Michael Housset (Nice France) explained his work on how the role of Otx2, found in both the developing and mature retina, is to coordinate cellular activities necessary for maintenance of the photoreceptor (PR) cells within the retina, and how perturbation of Otx2 can lead to degeneration of the PR cells. After lunch, we had plenty of time to make our way round the many posters presented on the day, all of which offered a wide range of research topics, many complementing the presentations offered during the event. The poster session remained busy despite the glorious weather outside.

The session resumed with a presentation on microtubules and how post-translational modifications, namely polyglutamylation and polyglycylation, regulate microtubule function and how this affects the function of microtubule dependent structures (Carsten Janke Paris France). The mechanics of tissue shape and plasticity and the role of

subcellular components such as E cadherin were discussed, with the primary epithelium of *Drosophila* as a model of a dynamic tissue dependent upon cortical tension and cell adhesion (Thomas Lecuit Marseille France). Also in this session the “chase and run” of neural crest cells and cephalic placodal cells as model of how these cells use chemotaxis and contact inhibition to ensure coordinated migration (Eric Theveneau London UK). The day closed with presentations on the role of *CycA* in the regulation of endocycles in *Drosophila* and the tight temporal and spatial regulation of the Katanin complex to ensure proper assembly and function of meiotic spindles (Michel Gho and Jose-Eduardo Gomes Paris France, respectively).

### Signaling and Differentiation

The Monday sessions opened with a talk from Oliver Hobert (New York USA) on the specific gene expression profiles necessary in *C elegans* to ensure the diversity of neuronal cell types. Giving conference “food-for-thought,” was a presentation on research in *Drosophila* demonstrating the molecular mechanisms behind the protection of the central nervous system in times of nutrient deficiency even at the cost of other organs (Louise Cheng-London UK). Nodal signaling in the developing sea urchin was another topic of interest in this session and evidence of the transcription factors acting downstream of Nodal and how these molecules regulate dorso-ventral patterning in the sea urchin. The role of FGF and Retinoid signaling in differentiation of early vertebrate embryos and Shh as a morphogen in vertebrate neural tube development and the properties of transcriptional networks to interpret morphogen gradients were two of the topics that impressed with an array of stunning images that really clarified the processes presented (Kate Storey-Dundee, UK and Vanessa Ribes-London UK, respectively). The morning session closed with a presentation on the role of Nodal-like signaling in the patterning of the intermediate and paraxial mesoderm (Britannia Morgan Fleming).

### Organogenesis

A distinct limb theme prevailed in the closing session of the day with some fascinating work by James Sharpe (Barcelona Spain) and his colleagues

on their work mapping the cellular movements and spatial gene expression within the developing vertebrate limb, giving some stunning computational images that accurately quantify the outgrowth of the limb. Malcolm Logan (London UK) presented his work on the molecular basis of hind and forelimb identity, using known limb-restricted molecular markers and an array of mouse transgenics to uncover the exact roles of several molecules known to be involved in limb identity and also to give insight in to the evolutionary divergence of fore and hind limb identity. Left/ Right asymmetry in *Drosophila* and the control of this process by the Hox gene *Abdominal-B* and the analysis of movements of cell clusters within the zebrafish tail were presented by Jean-Baptiste Coutelis (Nice France) and Christina Eugster respectively with the session closing on the work of Pascal de Santa Barbara (Montpellier France). Pascal discussed the function of an RNA binding protein, RBP for multiple splicing<sup>2</sup>, in visceral smooth muscle development and its expression in human visceral myopathy.

### Polarities and Borders

Several of the talks in the final session of the meeting focused on the molecular mechanisms of cell polarity and establishment and maintenance of cell boundaries in *Drosophila*. tensile cortical forces and how the maintenance and sensing of these is controlled at the molecular level. Of particular interest were the final two presentations. The first by Gregoire Michaux (Rennes France) and his work on the role of AP-1 in apical trafficking within the epithelial cells of *C elegans* intestine and how the loss of this molecule can lead to a phenotype that closely resembles that of the human condition orphan Microvillus inclusion disease which is lethal in neonates. The second presentation of particular interest to me was that by Marie Cibois (Marseille France). Marie discussed the role of a family of microRNAs essential for correct development of multiciliated tissues. Failure of specific mRNAs could lead to failure of multiciliation in developing tissue. Marie stressed that this work could offer significant insight towards regeneration treatments for diseases in which multiciliation is deficient.

Closing the session and the meeting, Robin Lovell Badge (NIMR UK) presented his work on the role of the Sry gene, Sox9 and several other downstream molecules involved in normal sex determination and sex reversal.

As my first experience of an international meeting, I was in awe of the fantastic work presented. I would like to thank both the French and British Societies for organising this meeting and to the British Society for Developmental Biology for supporting my attendance at the meeting.

*Scot McMenemy  
PhD student  
Vargesson group Aberdeen*



*from left to right Chris Mahony (Vargesson Group Aberdeen), Natalie Gibb (Hoppler Group Aberdeen) and your correspondent, Scott McMenemy (Vargesson Group Aberdeen)*





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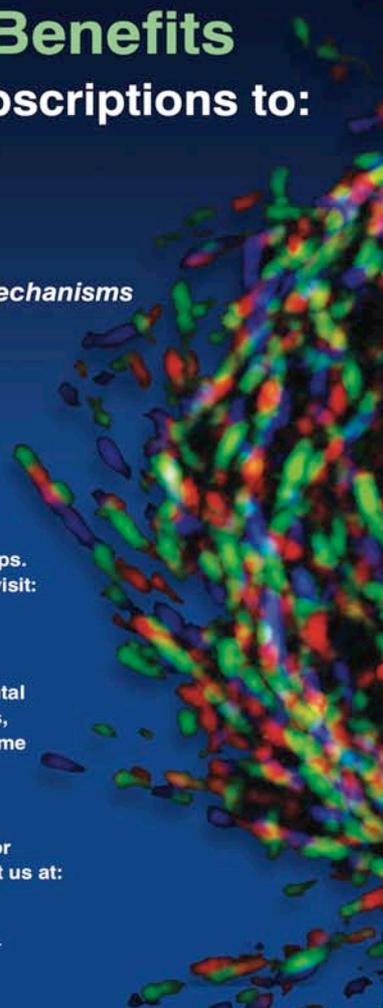
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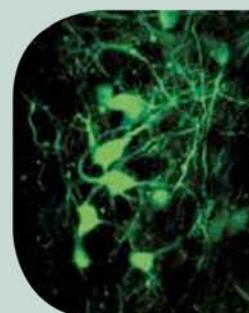
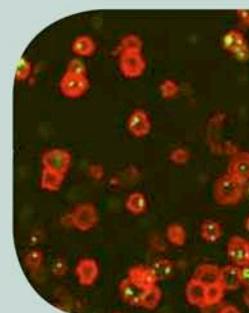
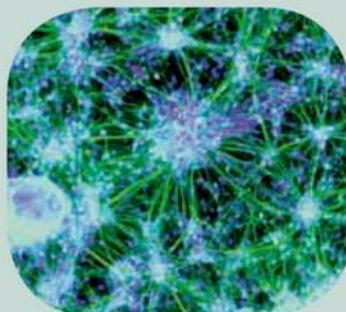
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Hedgehog 2012

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## Book review : Building Brains: an Introduction to Neural Development

David Price, Andrew Jarman, John Mason, Peter Kind. Wiley ISBN 978-0-470-71229-0

Over recent years, advances in genetic, molecular and cellular biology techniques have served to unravel and refine some of the mechanisms underlying nervous system development. Despite such advances much remains to be learned, and it is for this reason that neurodevelopment continues to be a fast-paced, challenging and highly rewarding field of research for many scientists. Central to further progress is the ability to captivate and inspire the scientists of tomorrow and this is precisely where 'Building Brains: an Introduction to Neural Development' excels. With its flowing text and clear illustrations this book provides an essential source for anyone willing to get 'up-to-speed' with the core knowledge, key mechanisms and basic design principles that shape the nervous system. Furthermore, the insightful use of boxes gives the reader a true sense of the link between experimental design and discovery and provides useful context for those who go on to pursue a career in neurobiology.

Having taught developmental neurobiology to final year undergraduates for the past six years the arrival of this book is an absolute blessing as it lends itself seamlessly to teaching. The first two chapters are particularly welcome as they provide all of the necessary background that many students - in particular, computational neuroscientists and intercalating medics - require before tackling more advanced texts.

Subsequent chapters then cover all of the major concepts, principles and mechanisms that form the basis of our current understanding of neurodevelopment - at a level that provides depth but stops short of becoming detrimental by unnecessary complexity. In summary, 'Building Brains' is an excellent core text for undergraduate teaching, but is equally applicable to postgraduates and postdocs seeking a crash-/refresher-course in neurodevelopment.

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## Reviewing a book for the BSDB

Suggestions for future book reviews are always welcome. If you know a book you think should be reviewed, please contact the Editor. Reviewers receive a free copy of the book for their trouble.

Here are some possibilities:

### From CUP

Cancer Stem Cells  
W. L. Farrar  
9780521895283

Shoot Apex and Leaf Growth (first published 1975)  
R. F. Williams  
9780521112871

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