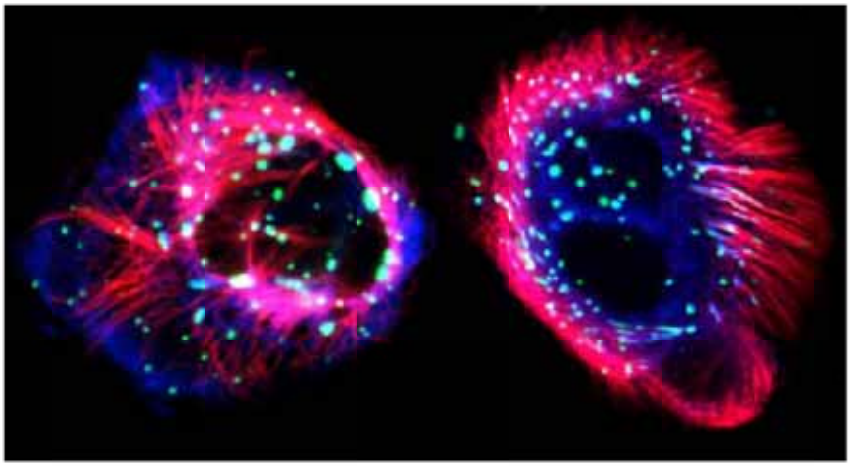
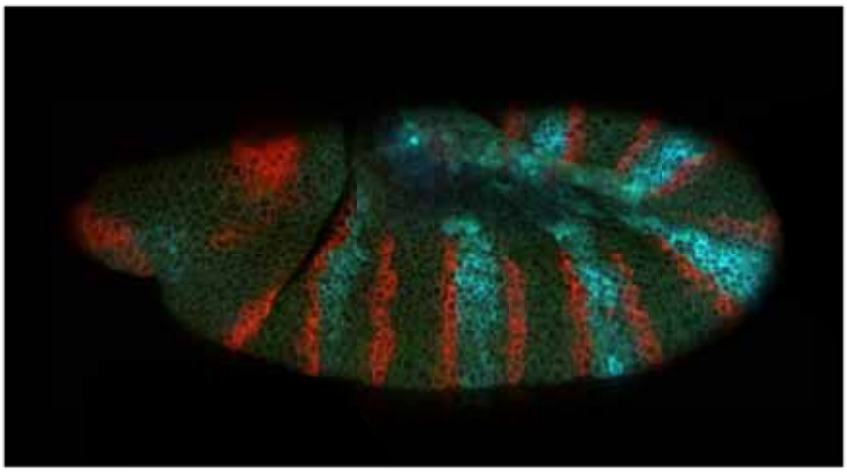
BSDB

Newsletter

Winter
2004
Vol. 25, No. 2

British Society for Developmental Biology





BSDB/BSDB
Joint Spring Meeting 2005

BSDB Newsletter

Winter 2004 Volume 25, Number 2

Editorial

I am beginning to worry I have been here too long (well don't all disagree at once). I have now witnessed the passing of two Chairmen during my tenure and I am beginning to feel distinctly long in the tooth in this job. Still, help is at hand. **Andrew Jarman** has volunteered to take over next year, so expect changes. Indeed, we would like to know what changes you would make, so start those suggestions coming (to me or to Andrew).

In fact, we do have changes aplenty. As mentioned, **Phil Ingham** has now passed the chair to **Matthew Freeman**. Welcome to Matthew and thanks to Phil for overseeing many important changes during his tenure, many of which are alluded to in Matthew's Chairman's letter (page 2). Of course Phil hasn't really gone gone, and indeed he makes a welcome contribution in this edition, albeit in the sad circumstances of the death of Ed Lewis (page 8).

There are also changes to the composition and structure of the Committee (page 2) including, importantly, a new person (**James Briscoe**) responsible for our interactions with the Biosciences Federation. Also new is an initiative from **David Wilkinson** and **Corinne Houart**, who want you to join in to develop a Dev Biol Information Resource for Schools (page 3).

Other major changes in society at large will affect scientists, particularly those involved with animal experiments. The **Freedom of Information Act** comes into force in January next year, but it seems that not many of us are aware of how it will affect us. To find out more, see page 4.

A couple of things haven't changed. One of these is the status of the Standing Orders of the majority of our members!!! Despite our appeals in the last Newsletter, many of you have **not updated your bank accounts** to the new subscription charges. PLEASE help us keep the BSDB liquid by doing this ASAP. See the Treasurer's page (page 6) for details.

Another thing that hasn't changed is the quality of our meetings, and this Spring's meeting promises to be no exception. A brilliant clerical error by the organisers (no names, but it wasn't a BSDB member) means we have a bumper crop of speakers (see page 9) in what is bound to be an oversubscribed meeting, so register early. Students beware: if you read nothing else in here, make sure you read the Travel Grant deadline (page 7).

Finally, we're still looking for worthy nominations for the Beddington Medal, so if your student is stunning, we want to hear about them (see page 7).

The Editor
(a.j.furley@sheffield.ac.uk)

Contents

BSDB Spring Meeting 2005

Joint Meeting with BSCB

Warwick, 6th – 9th April

For further details see **page 9** and
http://www.bsdb.org

Registration, and Abstract Deadline:
29th January, 2005
(Travel Grant Deadline 7th January, 2005)

Chairman's Letter

It is a real honour to have been chosen as the new chairman of the BSDB and I am excited to be following in the footsteps of such illustrious predecessors. My pleasure is further enhanced by **Phil Ingham**'s comment in his final chairman's column (last issue), that most of the real work is done by the other officers of the society! These are clearly the key players in making the BSDB work as well as it does and we are all fortunate to have **Robert Kelsh**, **Guy Tear**, **Nancy Papalopulu**, **Andy Furley**, **Corinne Houart**, **Andrew Jarman**, and **David Wilkinson** committing so much time and energy to their respective roles. The 'ordinary' committee members also play a vital role in taking on less formal jobs and in ensuring the representation of the breadth of developmental biology – they are far from ordinary in their function.

I want to thank Phil for his leadership of the society over the last five years. The chairman does have to act as a figurehead and representative of the society to the world at large, and Phil has done this with his usual insight, skill and charisma. From my perspective as a punter (I haven't been on the committee before), the greatest and most important manifestation of his abilities has been the high profile of the society and the world-class excellence of its meetings. As I have learnt a bit more behind the scenes over the last few months, I also begin to see some other aspects of Phil's achievements.

I suspect the most lasting and important will be the international flavour he has added to the BSDB. The first joint meeting with the French developmental biology society was a huge success and demonstrated that it is possible to get to Nice for about the same price as Warwick and thereby add some sunshine and a more cosmopolitan outlook to our science. I am sure this won't have been a one-off. Phil has also fostered the relationship with the recently reinvigorated ISDB, headed by **Eddy De Robertis**; the ISDB is a force for the good and our increased interaction with it is something I hope to encourage. And I should remind you that Phil has done all this while running a world-leading lab and establishing a major new UK developmental biology department. It's a tough act to follow.

It's too early for me to appreciate the subtleties of the inner-workings of the society and while I am on such a steep learning curve, I am hesitant about being too disruptive. But I do have a few broad goals. The first is to continue with the tradition that BSDB meetings are as good as they get: the standard of the best meetings anywhere in the world, and an essential date on the calendars of developmental biologists from the UK and abroad. The second is to ensure that the policy issues that affect developmental biology are well represented by the Biosciences Federation (BSF) which, in its short life, has become a formidable lobbying voice. It's a challenge shared by its constituent societies to learn how to interact most effectively with the BSF, and it's one to which we need to rise. Like it or not, our science is embedded within a society and a policy landscape where badly informed decision makers can do real harm. It is a primary function of the BSDB to represent the field and its scientists, and we must learn how to do this effectively with the BSF.

Finally, please let me or any other member of the BSDB committee know if you have complaints or ideas about how the society operates. It belongs to you, not the committee. Our job is to run it as well as we can on your behalf.

Matthew Freeman, Cambridge

News (& Views)

Who's Out and Who's In: Changes to the BSDB Committee

The unexpected departure of **Mike Jones** to Singapore (how's the golf Mike?) enacted a rarely-used mechanism allowing the Committee to select a replacement; BSDB rules stipulate that Committee members be UK-based. It was agreed that the position should be offered to the runner-up in the voting at the last AGM, and we are pleased to announce that **Andrew Fleming** of Sheffield University has accepted election to the Committee. Andrew has recently arrived from the ETH in Zurich and works on plant morphogenesis.

Biosciences Federation – New BSDB Liason Officer

As those who (avidly) read these pages will be aware, the Biosciences Federation (BSF) has become the major forum through which those working in the life sciences can make their voices heard in the corridors of power, a role previously played by a concoction of bodies, including the Insitute of Biologists and UK Life Sciences Committee. The BSF is clearly effective – witness it being quoted 8 times in the recent Commons Science and Technology Committee report on its inquiry into the Research Assessment Exercise – and the BSDB Committee fully supports its goals. Our interests have been represented up to now by **Guy Tear**, who has made an excellent job of passing on information and feeding back our responses to the BSF. However, this has become increasingly difficult for Guy to do effectively since becoming BSDB Treasurer and the role has now been passed to the safe hands of **James Briscoe.** Please contact James (see page 16) if you would like further information, or have a view you would like represented. Recent examples of the commentary the BSF has provided on government policy can be found at http://www.bsf.ac.uk/recent.htm

Beddington Medal 2005

Nominations for the Beddington Medal are still open. These should be for a thesis submitted in the period from **1st October 2003 to 31st December 2004**. Each nomination should include a one page letter from the thesis supervisor, a two page summary outlining the background and findings of the thesis and documentation verifying the date of submission. Nominations

News (& Views)

should be sent to the BSDB Secretary **Robert Kelsh**. Note the **deadline for submissions is 31st December 2004**,

See BSDB website for further details. http://www.bsdb.org

Have you updated your BSDB Subscription?

We have had a fairly muted response to our demand for more money (Really? Like that's a surprise.). Pending inspection of our October bank statement (where we see the subs come in), we may be forced to take drastic culling action. For details of how to update your subs see page 6

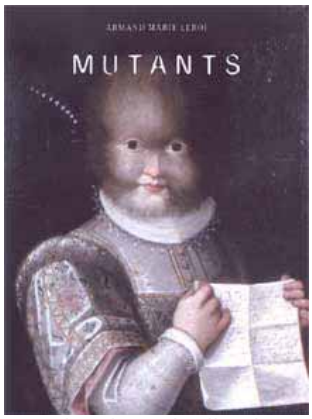
Development Subscription Rates

For current discounted subscription rates, please see the website (http://www.bsdb.org)

BSDB Summer Students - Update

As reported in the last issue, the BSDB committee recently indicated that the Society would make available a limited amount of money to fund undergraduate students who wish to work in developmental biology labs during their summer vacation. Unfortunately, funds remain tight at the moment, but the committee asks that this is kept in mind for next year!! Please see Treasurer's page for further info.

Human Mutants - Bodyshock



Well it got your attention didn't it. Despite the shock tactics of the title of the recent Channel 4 three part series, **Armand Leroi's** trilogy proved a great hit, certainly among our graduate students and their non-science friends. Using our natural morbid fascination with the oddities of human kind, Leroi gave a brilliant narrative account of our 'genetic grammar' and the people whose bodies have revealed it. Stepping effortlessly from myth to molecular biology, this Imperial College C. elegans researcher deserves our respect for bringing developmental biology to the public at large. Keep it up Armand.

More info: http://armandleroi.com/mutants/index.html

http://www.channel4.com/science/microsites/S/science/body/bodyshock_mutants.html

New newsletter from Coalition for Medical Progress – an organisation dedicated to promoting best practice in the use of animals in research

Engage is the new hardcopy newsletter from the Coalition for Medical Progress. As well as detailing their activities, it aims to inform about the use of animals in research and to share best practice. The reverse side of the newsletter contains up-to-date British examples of how animals contribute to progress in both veterinary and human medicine (A2 poster). Copies can be ordered from info@medicalprogress.org. More info available on their website http://www.medicalprogress.org/

BSDB and Schools – a letter from Corinne Houart and David Wilkinson

Dear BSDB members,

The Society would like to promote the general understanding of Developmental Biology. One of our new aims is to develop an **information resource for schools**. We would like to achieve three goals:

- Get scientists to give talks to local schools.
- Compile a set of essays written for 14-16 year old children on topical issues in the field.
- Organise exhibitions for schools alongside the BSDB spring meetings.

To achieve these, we will need the help of our colleagues. We would therefore like to ask if you are willing to contribute to any of these three objectives. If you are interested, could you please contact either **David Wilkinson** (dwilkin@nimr.mrc.ac.uk) or **Corinne Houart** (corinne.houart@kcl.ac.uk), mentioning which type of contribution(s) you would be ready to make.

More than ever, we feel that developmental biology and its impact in society need to be understood by the public, and acting at the secondary school level seems to be the most effective way to begin. We are **counting on your help** with this important initiative.

Corinne Houart and David Wilkinson

Cool T-shirts from Jenny Whiting
http://www.invisiblebody.com/

Freedom of Information

The Freedom of Information Act looms – what does it mean for you?

For years it has seemed as if January 1st, 2005 was a long way off. This is the date when individual information requests must be responded to under the Freedom of Information Act 2000 (FoI Act). As it turns out, that date is not quite as significant as originally thought, since anti-vivisection groups have already submitted information requests under the existing Government Code of Practice.

In the meantime, however, universities and other public bodies have been gearing up for next year. This has usually meant setting up centralised administrative systems so that requests can be identified and dealt with swiftly.

Whilst there are likely to be plenty of headaches involved in complying with the the FoI Act, information relating to animal research is particularly problematic, for a number of reasons:

- Animal research is already steeped in bureaucracy and paperwork. The extra administrative effort to comply with Freedom of Information can hardly help.
- Staff linked to animal research are understandably concerned about their personal details and the threat of extremist targeting.
- Anti-vivisection groups are planning to challenge the granting of project licences, and this could become a nuisance. They will also hope to obtain more evidence to use in their campaigns.
- Commercial companies are not themselves subject to the FoI Act. However, information held on their behalf at the Home Office would be. This means that the Home Office could be making decisions about how commercial confidentiality applies.
- We have little idea of the scale of information requests likely. Many universities who are not currently in the limelight may get no more than a handful of information requests. Others might get many more.

The best advice is to be well prepared. Decisions on freedom of information are case by case, so there are no sweeping exemptions for any types of document. Judgements will need to be made, so proper staff training and awareness is essential.

The ASPA (Animals (Scientific Procedures) Act 1986) requires a lot of records to be kept, eg health records, environmental data, records of source, use and final disposal of protected animals. An audit is advisable of what information is held, where, in what form, and how long it needs to be kept. It will be an offence to alter, deface, block, destroy or conceal information to prevent disclosure. But it is acceptable to have a schedule in place whereby documents are routinely destroyed after a certain period of time. Any research department should have started going through records in detail to see what must be retained and what could usefully be got rid of.

We assume that precedent will be important. If one research institute releases certain information in response to a request, others might be expected to do so too. For this reason, Universities UK is helping to set up a network of Freedom of Information officers with an interest in animal research to share information on how institutes response to information requests.

Until now we have had little information as to how the various exemptions might apply in the case of animal research. But the antivivisection group British Union for the Abolition of Vivisection (BUAV) has helped us a little by requesting 10 anonymised project licences from the Home Office. They made this request under the 'Code of Practice' - the forerunner of the full FoI Act.

After some delay, and no doubt plenty of legal input, the Home Office released 10 overviews of project licences, each approximately three pages long.

On first inspection, the most obvious thing about these documents is the lack of any title or structure. They include the following information:

1. A description of the applicant in terms of qualifications and a mention of other staff involved in the research
2. The primary permissible purpose
3. Comments on whether the research is peer reviewed and funded
4. A description of the specific objectives
5. The scope and limitations of alternatives
6. The number and type of animals
7. A description of the procedures – but not adverse effects and endpoints

Crucially, the overviews are anonymised. There is plenty of detail in these overviews. But if a campaigner was interested in a particular area of work, then most of the information they were after could be gleaned from an internet search using the correct key words anyway. For example, we know that extremist groups have been successful in tracing scientists working with guinea pigs all over the country even without any FoI Act.

So our concerns about identifying individuals have been partially relieved – though perhaps not fully. At least we now have some idea of what information the Home Office might release.

Incidentally, even after they had received these project licence overviews, the BUAV was still claiming that "*currently UK animal experiments are conducted under a veil of secrecy that usually prevents the general public and Parliament from gaining access to any information about individual animal experiments…*"

Dr Simon Festing
Executive Director
Research Defence Society
www.RDS-online.org.uk

Reproduced with permission from the RDS Newsletter

If you have news, letters or comments you would like aired to the developmental biology community, please write to the Editor, Andy Furley a.j.furley@sheffield.ac.uk

Please note, the opinions and views expressed in this column are those of the signatories. Inclusion here is not intended to indicate endorsement by the BSDB.

From the Treasurer

Subscriptions Update

Following discussions at the AGM at the Spring Meeting 2003, the membership agreed with the BSDB Committee that the Society should increase its membership fees. One goal of this rise is to increase the money available to the Society to return to the membership in the form of travel grants. The annual subscription fees were raised as follows:

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

All members were mailed a letter instructing them on how to update their Banker's orders for their membership payments to be paid in October 2004. The response to this request has been underwhelming, two thirds of the membership have yet to update their subscriptions. Please take the time to update your standing order. A form for you to complete and send to your bank is available on the BSDB website: http://www.bsdb.org . Unfortunately our Bank is reluctant to allow us to set up direct debits so we have to rely on you to be conscientious enough to update your own standing orders.

Travel grant update

Requests for all categories of travel grant continue to exceed our budget, even with the generous contribution provided by the Company of Biologists. The squeeze on resources has come from a combination of increased numbers of applicants and high meeting costs. Last year we were able to award grants to the value of £10,674 for members to attend our own meetings and £20,825 for members to attend overseas meetings or courses. We continue to aim to offer full grants for all student and post-doc members who apply for funding to attend our own meetings; up to £400 for most applicants to attend an overseas meeting; and up to £500 for most applicants to attend a course or go on a laboratory visit. Due to our budget constraints the BSDB committee decided that it would be better to spread the limited funds across more applicants, rather than fully funding some, and providing nothing to others. In order to do this the follow procedures are being adopted:-

Grants to attend BSDB meetings

All applications for travel grants to attend BSDB meetings must be in the hands of the Treasurer by the published deadline. This deadline will usually be ONE MONTH before the close of registration for the Spring meeting and at a similar time for the Autumn meeting. However, the precise dates will be published on the BSDB website and the Newsletter. These will be strictly adhered to. This will allow applications to be assessed and funds to be distributed in time for applicants to discover the size of their award before having to register or accept their place at the meeting.

***Deadline for Spring Meeting 2005: 7th January, 2005**

Grants to attend overseas meetings and courses

Because of the multiple deadlines for registration for these meetings, it is necessary to process applications year-round. As before, applications will be collected over each month and awards will be made according to the remaining travel budget. The total amount needed will be taken into account so that an applicant who needs £1000 to attend an overseas conference will be more likely to receive the £400 maximum than one who needs a total of £500. Note:- those artificially over-inflating their request will be penalised.

Please take note of these new rules, which will hopefully allow an equitable distribution of funds among the membership.

To apply 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 made 3-4 months in advance is advised 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 for an overseas trip per year.

Small Meetings

Members may approach the Treasurer for seed funding to help with organising developmental biology events (eg one-day meetings) that involve other institutions and at which students and postdocs are encouraged to attend and present work. The BSDB currently supports the meetings of several local developmental biology groups with small (~£250) annual contributions. Any further requests for this type of funding should be made in a letter to the Treasurer.

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.

Summer studentships

In previous issues of the Newsletter you would have read that the BSDB Committee agreed that we wish to be able to award small grants to support undergraduates to spend their summer vacations working in a developmental biology laboratory. Our current finances have yet to be sufficient to allow us to achieve this aim. As soon as our subscriptions increase sufficiently we hope to be able to make these awards. As soon as this becomes feasible the criteria on which they will be awarded will be announced to the membership.

You can't be a student forever

Student members who joined in **2001** are reminded that they should quickly upgrade their subscription to £35 before they are **humanely culled** from our records.

Guy Tear
guy.tear@kcl.ac.uk

Graduate Students

Welcome

I hope you like the new-look graduate section; Leigh (Wilson) worked hard to put it together. As you will gather (below) Leigh has now retired as your student rep, as she is no longer a student. My name's **Caroline Parkin**, and I'm the new Graduate Student rep. I hope to continue the work Leigh has started on building the graduate student community. While the BSDB are updating the **website** I thought it would be a good idea to introduce a student page, at the centre of which would be a **message** board. This could be a really useful resource for **sharing ideas and protocols**, plus we could use it to request papers or materials from other labs. I'd also like to have some more input from you guys, I want **more news and reviews**, (conferences, books, commercial reagents, films, chocolate bars…) and also your thoughts on anything to do with your work. So this is a plea to anyone with a desire to communicate with the rest of the development world to **send me your ideas and thoughts** for the website and newsletter. Also I'm here to communicate your views to the BSDB committee, so if you have anything to say, let me know. Email me at **emujuice@hotmail.com** or **mdp02cp@shef.ac.uk**. Bye for now.

Quote from Caroline:
"I don't think any of the students read it anyway" Well, let's see.....

BSDB Spring Meeting 2005

PhD Students Beware

The Travel Grant Deadline for the Spring Meeting is

7th January, 2005

Attention PhD students and their supervisors

Beddington Medal 2005

The untimely death of **Rosa Beddington** robbed the developmental biology community of one of its greatest talents and inspirational leaders. Rosa made an enormous contribution to the field in general and to the Society in particular, so it seemed entirely appropriate that the Society should establish a lasting memorial to her. In 2003 the committee felt that a new award – **recognising outstanding achievement by a PhD student throughout the course of his/her research project** – would be a fitting way of remembering Rosa each year. The winner of the prize will get the opportunity to present their work as a talk in the Society's Spring Meeting.

The recipient of the inaugural 2004 award was **Anne-Gaelle Rolland-Lagan**.

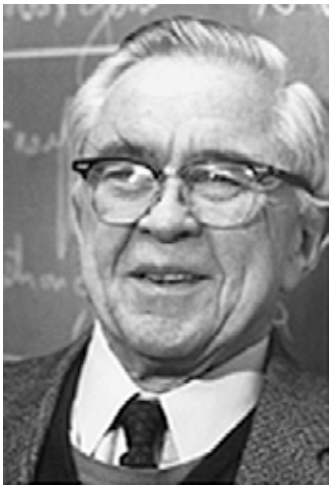
Nominations should be for a thesis submitted between 2nd September, 2003 and 31st December, 2004. Each nomination should include a one page letter from the thesis supervisor, a one page summary outliining the background and findings of the thesis, with a further page including figures illustrating a) the main point of the thesis and b) the quality of the figures. The application should also include documentation verifying the date of submission. Nominations should be sent to the BSDB Secretary (**Robert Kelsh**; contact details in back pages of this issue).

Next Deadline 31st December, 2004

For further info see:

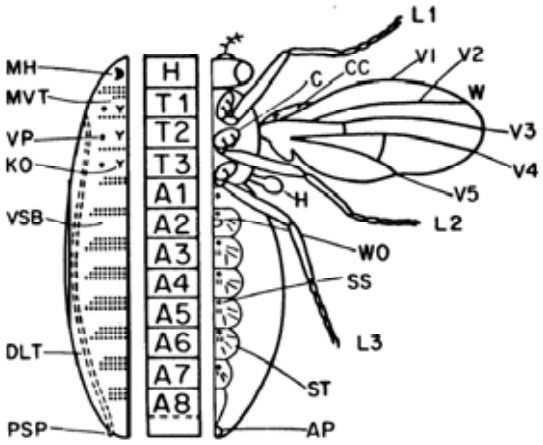
www.bsdb.org

Obituary: Ed Lewis



The passing of Ed Lewis on July 21st of this year in some ways marks the end of the great era of Drosophila classical genetics, an era that began with Thomas Hunt Morgan's pioneering studies and continued with the work of his students, including Alfred Sturtevant with whom Lewis himself trained as a graduate student. Through his own pioneering work, Ed became the conduit between this era of classical genetics and the modern age of molecular genetics; for through his discovery and detailed analysis of the Bithorax complex in Drosophila, he not only initiated the renaissance of developmental genetics as a discipline but at the same time stimulated the application of molecular biological techniques to the analysis of developmental processes.

Ed's lifelong fascination with Drosophila genetics began as a schoolboy when he set up crosses between different fly strains that he purchased through a mail order company; it was therefore unsurprising that he should pursue this fascination as a graduate student with Sturtevant. His original preoccupation was with gene duplication, a process which he recognised as being critical for evolution. He focussed on examples of pseudo allelism of closely linked loci, reasoning that this phenomenon was likely to reflect their origin through



tandem duplication. At first he studied the Star and asteroid mutations that affect the Drosophila eye. But it was his discovery of similar pseudo allelic behaviour at the bithorax locus that would eventually set the course for the rest of his life's work and at the same time change the course of scientific history. Through his amazingly painstaking and sophisticated dissection of the Bithorax complex, Ed established a paradigm not only for the genetic control of segmental diversity in insects, but, quite astonishingly, of all metameric animals, including humans. For his discoveries and their profound implications, he deservedly shared the Nobel Prize for Physiology or Medicine in 1995.

Throughout his sixty year career, Ed worked with no more than a handful of graduate students and post-docs, preferring so far as possible to perform all of his experiments with his own hands at the bench. I once had the pleasure of visiting his lab, a place that presented a vision of apparent chaos that only a Drosophila geneticist would appreciate and understand; entering the lab required the careful displacement of numerous trolleys - loaded with fly bottles, as well as books, papers and other assorted items - that filled the room. All of this was indicative of a man driven not by political or financial ambition but by a pure love of science and of scientific truth, untainted by the modern day influences of journal impact factors and commercial exploitation. One reflection of his modus operandi was his notably low publication rate. In fact, following his 1963 paper in which he first explicitly described the developmental significance of the bithorax mutations (which he had already been studying for 15 years), he published little more of his analyses until his famous and epic Nature paper of 1978. But for those interested in his work, Ed was more than ready to put pen to paper: I well remember the prompt and detailed responses that I received to letters that I wrote to Ed as a graduate student in the late 1970s. The image projected through this correspondence was of a kind and generous man, of great intellect matched in equal measure by a exuberant enthusiasm for his work, an image confirmed when I later met him, and his wife Pam, for the first time in Basel in 1981.

Though Ed is no longer with us, the impact of his discoveries and the way in which he achieved them will endure and inspire for many years to come. His kindness, integrity and enthusiasm for science – and life - will be greatly missed by all who knew him.

Phil Ingham, Sheffield

Cell & Developmental Biology Annual Symposium

6th - 9th April 2005
University of Warwick

An Extravaganza of Cell & Developmental Biology

Organisers: Phil Ingham, Alfonso Martinez-Arias & Jordan Raff

Plenary Speakers

Cori Bargmann
Matt Scott

Symposia

mRNA localisation; Regeneration & Wound Healing; Systems Biology
Neural Stem Cells; Polarised Secretion; Development of Marine Animals
Neuronal Transmitters; Asymmetric Cell Division; Space & Time in Health & Disease
Cell Biology of Behaviour; Micro RNAs; Epithelial Migration
Regulation of Cell Death; Mitosis; Guidance Systems

Symposium Speakers

Detlev Arendt
David Baulcombe
Hamid Bolouri
Bruce Bowerman
Simon Bullock
Folma Buss
Philippe Chavrier
Steve Cohen
Daniel Chourrout
Kim Dale
Graeme Davis
Ilan Davis
Mario de Bono
Denis Duboule
Suzanne Eaton
Anne Ephrussi
Mike Fainzilber
Jean-Francoise Ferveur
Charles ffrench-Constant
Cayetano Gonzalez
Darren Gilmore
Bruno Goud
Pierre Gönczy
Magdelena Gotz
Doug Green
Gillian Griffiths
Wieland Huttner
Tony Hyman
Antonio Jacinto
Ray Keller
Juergen Knoblich
Guido Kroemer
Ulrike Kutay
Ruth Lehmann
Patrick Lemaire
Chris Lowe
Paul Martin
Alfonso Martinez Arias
Pascal Meier
Ira Mellman
Luis Miguel Martins
Nick Monk
Stephen Nurrish
Ronald Plasterk
Jordan Raff
Freddy Radtke
Eres Raz
Giampietro Schiavo
Francois Schweisguth
Luis Serrano
James Sharp
Robert Singer
Kate Storey
Elly Tanaka
Guy Tear
Derek van der Kooy
Xiadong Wang
Cornelius Weijer
Magda Zernicka-Goetz
Yixian Zheng

Plus….
Beddington,
Hooke,
& Waddington
Medal Lectures

Plus…..
Special Symposium on "Women in Biology"

For further information and online registration please visit:
www.bsdb.org

Abstract Submission and Registration Deadline –
29th January 2005

Future BSDB Meetings

Autumn Meeting 2005

Wnt signalling in Development, Disease and Cell Biology

University of Aberdeen

14th – 16th September

The Wnt family of proteins play key roles in development including the regulation of patterning, cell differentiation and morphogenetic movements. Furthermore, deregulation results in human syndromes and disease. Major progress has been made through genetics and biochemistry into the understanding of how these proteins function and now cell biology is bringing a new dimension to this research. The aim of this meeting is to highlight the molecular and functional interaction between Wnt signalling and other aspects of Cell Biology, such as cell adhesion, cell migration and the cytoskeleton in the context of Developmental Biology using a number of vertebrate and invertebrate model systems.

Planned scientific sessions on:

- Integration of the Wnt signal with other cell responses
- Wnt signalling and the cytoskeleton
- Tissue morphogenesis and cell polarity
- Regulation of cell proliferation and differentiation

Confirmed speakers:
Hans Clevers, Trevor Dale, Barry Gumbiner, Hendrik Korswagen, Randy Moon, Roel Nusse, Patricia Salinas, David Strutt and Jean-Paul Vincent

Each session will consist of an introduction by the chairperson followed by invited speakers. Shorter talks in each session will also be chosen from abstracts submitted for the meeting.

Organisers: **Stefan Hoppler** & **Jonathan Pettitt, Adrian Harwood, Pip Francis-West**

See http://www.abdn.ac.uk/cdb/wntmeeting2005.htm for further details

---

Spring Meeting 2006

Joint Meeting with BSCB

University of York

20th – 23rd March, 2006

Organisers: **Corinne Houart & Betsy Pownall**
See page 16 for contacts

Topics for Future Society Meetings

One of the major tasks of the BSDB Committee is to select topics to be covered in future meetings and then to ensure that these meetings are well organised and successful. It is obviously crucial that meetings are supported by the members of the Society, and we always welcome suggestions for future topics. If you have an original idea for:

- **a half-day theme for the Annual (Spring) Symposium**
- **a two day Autumn meeting**
- **a one day workshop**

please get in touch with the **Meetings Secretary:**
Nancy Papalopulu (np209@cam.ac.uk)

Other Meetings & Courses

15th International Congress of Developmental Biologists

Sydney, Australia

3 - 7 September 2005

Plenary Program:
Sydney Brenner (The Molecular Sciences Institute, UK)
Christiane Nüsslein-Volhard (Max Planck Institute, Germany)
Austin Smith (Institute for Stem Cell Research, UK)
Phil Beachy (John Hopkins University School of Medicine, USA)
Steve Cohen (EMBL, Germany)
Hiroshi Hamada (Osaka University, Japan)
Janet Rossant (Samuel Lunenfeld Research Institute, Canada)
Olivier Porquie (Stowers Institute for Medical Research, USA)
Cliff Tabin (Harvard University, USA)
Sean Carroll (RM Block Laboratories, USA)
Denis Duboule (University of Geneva, Switzerland)
Konrad Basler (University of Zurich, Swizerland)
Yuh Nung Jan (University of California, San Francisco, USA)
Elliot Meyerowitz (California Institute of Technology, USA)

Symposium Program
Juan Carlos Izpisua Belmonte (Salk Institute for Biological Sciences, USA)
Peter Koopman (Institute for Molecular Biosciences, Australia)
Robb Krumlauf (Stowers Institute of Medical Research, USA)
Brigid Hogan (Duke University Medical Centre, USA)
Phil Ingham (University of Sheffield, UK)
Neelima Sinha (University of California, Davis, USA)
Michael Akam (Univesity of Cambridge)
Thomas Edlund (Umea Center for Molecular Medicine, Sweden)
Patrick Tam (Children's Medical Research Institute, Australia)
Alex Schier (Skirball Institute of Biomolecular Medicine, USA)
Masatoshi Takeichi (RIKEN Centre for Developmental Biology, Japan)
Liz Robertson (Oxford University, UK)
Philippe Soriano (Fred Hutchinson Cancer Research Institute, USA)
David Wilkinson (National Institute of Medical Research, UK)
Didier Stainier (University of California, San Francisco, USA)
Bruce Bowerman (Institute of Molecular Biology, USA)
Ken Zaret (Fox Chase Cancer Centre, USA)
Gordon Fishell (Skirball Institute of Biomolecular Medicine, USA)
Ben Scheres (Utrecht University, The Netherlands)

For further details see: http://www.isdb2005.com/

Model Organisms and Innovative Approaches in Developmental Biology: Short Course

Juquehy, Sao Paulo, Brazil

April 27 - May 4, 2005

Short Course to the 2nd International Meeting of the Latin American Society for Developmental Biology

http://www.sdbonline.org/ShortCourse/course.htm

Embryology: Concepts & Techniques in Modern Developmental Biology

Marine Biological Laboratories, Woods Hole, MA.

June 11 - July 24, 2005

An intensive six-week laboratory and lecture course for advanced graduate students, postdoctoral fellows, and more senior researchers who seek a broad and balanced view of the modern issues of developmental biology in an evolutionary context.

http://www.mbl.edu/education/courses/summer/course_embryo.html

Application Deadline: February 1, 2005

Generous financial assistance is available!

The Teratology Society's 45th Annual Meeting

TradeWinds Island Grand Resort, St. Pete Beach, Florida.

June 25 - 30, 2005

Travel stipends ($500 each) for students in developmental biology and toxicology whose abstract is accepted for presentation. Last year, 50 student abstracts were submitted and all of them were accepted (some as platform presentations, some as posters).

http://teratology.org/meetings/index.htm

Check the BSDB website for meetings updates

Enquiries to Andrew Jarman (andrew.jarman@ed.ac.uk)

www.bsdb.org

STOP PRESS: BioScience2005 - from Genes to Systems. 17th-21st July 2005, Glasgow, UK. Preliminary Programme now available: http://www.BioScience2005.org

THE ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND

WINTER MEETING 2005

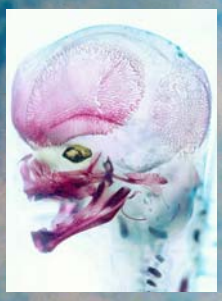
CRANIOFACIAL DEVELOPMENT

'MAKING FACES'

Organisers: Philippa Francis-West and Darrell JR Evans

SPEAKERS INCLUDE:

YiPing Chen (Tulane University, USA),
Andy Copp (ICH, London),
Michael Depew (King's College, London),
Anthony Graham (King's, College, London),
Jim Hanken (Harvard University, USA),
Jill Helms (Stanford University, USA),
Shigeru Kuratani (Riken Institute, Japan),
Sven Kreiborg (Copenhagen University, Denmark),
Nicole Le Douarin (Nogent-sur-Marne, France),
Gillian Morriss-Kay (Oxford University),
Drew Noden (Cornell University, USA),
Jo Price (RVC, London),
Richard Schneider (UCSF, USA),
Paul Sharpe (King's College, London),
Paul Trainor (Stowers Institute, USA),
Andrew Wilkie (Oxford University).




ST ANNE'S COLLEGE, UNIVERSITY OF OXFORD, UK

5-7TH January 2005

Registration details, abstract submission and other meeting information available at www.anatsoc.org.uk

Book Reviews

Embryology, Epigenesis and Evolution

Jason Scott Robert
Cambridge University Press 2004.
ISBN 0521 82476 2 hardback.

Two pieces of blurb, from front and back dust-jacket respectively, provide useful departure points for any review of this book. The first, presumably from the publisher, announces that 'Clearly written, this book should be of interest to students and professionals in the philosophy of science and the philosophy of biology '. Apart from itching either to replace the 's' beginning the fifth word with a 'c', or to prefix a 're' to the second one, I can see a substantive problem right away. The writing style, and the reading skills to match it, that might possibly be shared by this author and his fellow philosophers of science, is thankfully extinct, if it ever existed, among biological researchers themselves. **We are just not at all good at reeling in numbered criteria, or points of argument - say 1-6 with perhaps even a 5a and b - then a few paragraphs later absorbing scattered capitalised acronyms whose obscure referents (like developmental systems theory; DST) are hard enough of definition, and then a lot downstream from THAT, being presented with sentences of the form 'While DST might therefore make a fair shot at satisfying points 1-5b provided that ESG for the most part holds, AR has more mileage in it overall for most modern biologists etc.etc.'** I know; the sentence that it's cost me to illustrate that is hardly the sort one would want to see a bookful of (:-o, Ed). But you get the point. It's a real problem because, despite the style, the detailed subject matter and the required level of prior acquaintance, not just with concepts but with contemporary biological knowledge, mean that its target readership cannot primarily be the author's fellow philosophers. He's hoping to address the likes of you all, practising developmental researchers (albeit evolutionary-minded ones).

The second blurbphrase (from a re- or previewer?) states 'puts development back at the forefront of biological inquiry'. It's on a saturated red background as it happens, but didn't need to be in order have a certain effect on at least the present reviewer. Oh. Naive of me I suppose. On the planet I inhabit, developmental studies have been dragged reluctantly from arcane backwater status for at least 3 decades since. This leads nicely into the question; what, exactly, is the claim to novel input that is implied in Robert's subtitle 'Taking Development Seriously'

Currently almost all serious students of at least morphological evolution consider themselves to 'take development seriously', as witness the plethora of meetings and the spawning of an officially recognised, exciting field of 'evo-devo' (Roberts mercifully dispenses with an Upper Case acro-acronym for this one). But they haven't always, and the first part of the book traces and unpacks for us the evolution of the positions held by eminent figures of the past, about the relative explanatory values of the genetic and the developmental theories of their time in understanding evolution. Or indeed, in conceptualising what organisms actually are, when thinking about evolution. This is potentially valuable, IF one can stick with it, for a developmental community where by now the majority of all active researchers were trained only within our contemporary understanding of genes and gene action. Roberts charts an increasing appearance of 'taking development seriously' as we approach the present, but all the time he is saying 'but are we really, REALLY doing so'. Obviously not, as it were; hence the final half of the book of course, where, if possible in even tougher-to-plumb style, he tries to show what it is/will be like to think about evolution, but really REALLY etc., HIS way. Trouble is, it's only in the very slim middle section - easy to pass across amid the acronym- and argument list-remembering struggle with the flanking parts - that he enunciates what 'his way' is. 'Constitutive Epigenetics' names the chapter, and five pages (pp73-77) about cover the heart of it. He would want to claim that, not as an exceptional but as a central phenomenon, the genetic information of complex organisms is substantively and creatively modified by the course of each development before being handed on in gametes. He has recourse to the complexities of gene transcription and translation in order to claim this, and wants that evolution cannot be thought about without assuming it. If someone else can read this section of the book and show me that he is not proposing this, I should like to hear (*so would I, so how about it? Ed)*. Of course, he does not accord priority to Lamarck, or worry about Weissman. After all they didn't understand the gene, did they?

In a nutshell **Robert belongs among those who, for some emotional reason that is probably the most interesting aspect of the whole debate, cannot swallow the idea of the primacy of 'genes',** the DNA descendants of the RNA replicator/enzyme entities with which life began; that the successful and enduring replication of co-operatives of such genes is what their organisms, however complex, are in an evolutionary sense 'for'. Genes weren't 'invented' by organisms as an enhanced way of storing developmental information; rather, co-operatives of genes 'invented' organisms and development as vehicles the more reliably to perpetuate themselves. Without ever openly laying out this idea (that I can see; Dawkins is on the reference list but not prominently), the whole book is an attempt to wriggle and squiggle out of it and its implications. **On some days, I am emotionally in sympathy, but natural knowledge does not advance on sentiment.**

Jonathan Cooke, London

A Practical Guide to Developmental Biology

Melissa A. Gibbs
Oxford University Press 0199249717

At first glance this book left me a little disappointed. It seemed that the topics in each chapter could have been discussed more thoroughly and there were too many diagrams and pictures. A more thorough investigation revealed that the illustrations do complement the experimental protocols, facilitating the interpretation of the experimental manipulations. Similarly, further reading is suggested where appropriate. In fact, **the more I read of this book, the more I came to the conclusion that it is first rate and manages to convey its message with the minimum of fuss**. The best description would be to call this a textbook that has been sent to fat camp for the summer and has lost the weight of excess content that isn't key to its practicality. This is a lean trim textbook.

Covering a wide variety of experimental organisms, including plants, the manual follows the sequence of most developmental biology textbooks: axial patterning, plant

Book Reviews

cell totipotency, fertilization, early plant development, morphogenesis, cell adhesion, embryogenesis, gametogenesis, regeneration, and metamorphosis in a very concise, no-nonsense format.

This lab manual is designed to give students experience with a wide variety of model systems currently in use by developmental biologists. Experiments range from classic slide or whole animal observations to more modern immunohistochemistry and the manipulation of gene expression. All these experiments are described in detail and the appendices provide recipes, needed chemicals, and sources for all aspects of the book.

At the end of each practical chapter are questions based around the material presented, encouraging the idea that this book could be used by upper level undergraduate and for graduate practical classes. With this in mind, a minor gripe is that it would have been very handy if a small concise pull-out of bullet point answers to each of the questions was included for use by those poor souls marking the work of the masses of students.

In short, this book describes a range of techniques and provides a solid foundation in classic practical developmental biology. It allows students the means to learn how to handle and manipulate a variety of embryonic organisms and describes them in a succinct and proficient manner.

Mark Howard, Liverpool
m.howard@liverpool.ac.uk

The Great Ideas of Biology

Paul Nurse
Oxford University Press
ISBN 0199518971 2004

This small booklet comprises the text of the Romanes Lecture delivered before the University of Oxford on 30th October 2003. In it, Paul Nurse discusses the history and significance of what he sees as the four great ideas of biology: The Cell, The Gene, Evolution by Natural Selection and Life as Chemistry. He finishes by considering what he thinks might become the fifth great idea, Biological Organization.

Beautifully written, this is a delight to read, regardless of your knowledge of biology – clear enough for beginners and sufficiently erudite for experts.

Joan Marsh, Wiley Press
Ed. BSCB Newsletter

Books for Review

I always **welcome suggestions for future book** (& meeting) reviews. If you know a book (or meeting) you think should be reviewed, please contact me (Andy Furley). For books, I will arrange for a copy to be sent to you gratis. Below are some suggestions:

From DNA to Diversity: Molecular Genetics and the Evolution of Animal Design – 2nd Edition, Scott, Grenier & Weatherbee. Blackwell Publishing. ISBN 1405119500
http://blackwellpublishing.com/book.asp?ref=1405119500&site=1

Developmental Hematopoiesis – methods & protocols. M.H. Baron. Humana Press. ISBN 1-588-29-296-7

Phenotypic Integration – Studying the Ecology and Evolution of Complex Phenotypes. Eds. M. Pigliucci & K. Preston. OUP. ISBN 0195160436
http://www.oup.co.uk/isbn/0-19-516043-6

Gastrulation: From Cells to Embryo. Claudio Stern. Cold Spring Harbor Press. ISBN 0-87969-707-5.
http://www.gastrulation.org/ ***

Epigenetics Protocols. Ed. T.O. Tollefsbol. Humana Press. ISBN 1-588-29-336-X

Germ Cell Protocols – vol 2: Molecular Embryo Analysis, Live Imaging, Transgenesis. Ed. H. Schatten. Humana Press. ISBN 1-588-29-257-6

RNA interference, Editing and Modification: Methods & protocols. Ed. J. M. Gott. Humana Press ISBN 1-588-29-242-8

Genesis: The Evolution of Biology, Jan Sapp. OUP. ISBN 0195156196

Evolution – 3rd Ed. Mark Ridley. Blackwells. ISBN 1405103450

Readers Of The Book Of Life. Anton Markos. OUP. ISBN 0195149483

George Beadle: An Uncommon Farmer. Paul Berg & Maxine Singer. CSHLP. ISBN 0879696885

Biased Embryos and Evolution
Wallace Arthur
The first book on Evolutionary Developmental Biology that is for undergraduate and general readership.
http://titles.cambridge.org/catalogue.asp?isbn=0521541611

Evolution: From Molecules to Ecosystems
Andres Moya and Enrique Font
Paperback 0-19-851543-X £37.50
Hardback 0-19-851542-1 £75.00
http://www.oup.co.uk/isbn/0-19-851543-X

Inborn Errors of Development The Molecular Basis of Clinical Disorders of Morphogenesis
Edited by Charles J. Epstein, UCSF, Robert P. Erickson, U. Arizona, USA, and Anthony Wynshaw-Boris, UCSD.
0-19-514502-X
£150.00 Hardback
http://www.oup.co.uk/isbn/0-19-514502-X

Tissue Engineering - Engineering Principles for the Design of Replacement Organs and Tissues
W. Mark Saltzman, Goizueta Foundation Professor of Chemical and Biomedical Engineering, Yale University
Price: £60.00 (Hardback)
0-19-514130-X
http://www.oup.co.uk/isbn/0-19-514130-X

THE ROYAL SOCIETY

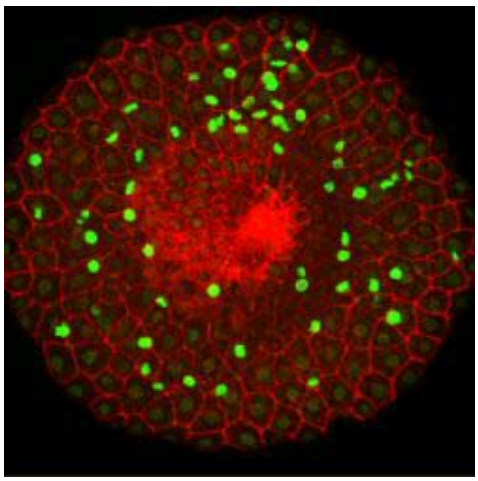
FirstCite® e-publishing

New directions in tissue repair and regeneration

Organised and edited by Jeremy Brockes and Paul Martin

A Discussion Meeting Issue: published May 2004

Discounted price: £45/US$70 (usual price: £100/US$160)



This volume considers new information on regeneration and wound healing as biological mechanisms in a variety of species - ranging from the planarian worm which can be cut into 100 pieces, each of which will regenerate into a new individual in a week, to the deer antler which, under sex hormone control, sheds and then regenerates complex organ pattern annually. The fields of repair and regeneration are now integrating with elements of stem cell biology and tissue engineering in ways that offer real opportunities for clinical applications that will allow us to replace tissues damaged by trauma or disease in the not-too-distant future.

Subscribers to *Philosophical Transactions* can access the full content online by either visiting our website at **www.pubs.royalsoc.ac.uk** or **www.journals.royalsoc.ac.uk**

To place an order at the preferential price of **£45/US$70**, please contact:
The Royal Society, (TB 1445) PO Box 20, Wetherby, West Yorkshire LS23 7EB, UK

Tel: +44 (0) 870 121 4224 **email**: royalsociety@twoten.press.net

To purchase individual papers on a pay-per-view basis, or for free abstracts please visit our website at the time of publication.

Philosophical Transactions has been published continuously since 1665.
This monthly journal publishes the papers from the Royal Society Discussion Meetings, topical Themed issues and authoritative reviews. All papers are stringently peer-reviewed.

Sign up for our FREE table of contents alerting service at www.pubs.royalsoc.ac.uk

BSDB Committee Members

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 hestitate to convey them to Nancy Papalopulu (or another committee member). The officers of the society will be happy to answer any questions relating to their specific subjects.

Officers

Chairman
Matthew Freeman (2004-2009)
MRC Laboratory of Molecular Biology
Hills Road
Cambridge CB2 2QH
Tel: 01223 402351
Fax: 01223 412142
e-mail: mf1@mrc-lmb.cam.ac.uk

Secretary
Robert Kelsh (2003-2008)
Developmental Biology Programme,
Department of Biology and Biochemistry,
University of Bath, Claverton Down,
Bath BA2 7AY
Tel: 01225 323828
Fax: 01225 826779
e-mail: bssrnk@bath.ac.uk

Treasurer
Guy Tear (2004-2007)
MRC Centre for Developmental Neurobiology,
King's College London,
4th Flr, New Hunt's House,
Guy's Campus,
London SE1 1UL.
Tel: 020 7848 6539
Fax: 020 7848 6550
e-mail: Guy.Tear@kcl.ac.uk

Meetings Secretary
Nancy Papalopulu (2003-2008)
Wellcome/CRUK Institute
Tennis Court Rd
Cambridge CB2 1QR
Tel. 01223-334126
Fax 01223-334089
e-mail: np209@mole.bio.cam.ac.uk

Publications Secretary
Andy Furley (2000-2005)
Dept. of Biomedical Science
University of Sheffield,
Western Bank,
Sheffield S10 2TN
Tel: 0114 222 2354
Fax: 0114 222 2788
e-mail: A.J.Furley@Sheffield.ac.uk

Website Co-ordinator
Andrew Jarman (2003-2008)
Division of Biomedical Sciences and Centre for Neuroscience Research
George Square
Edinburgh
EH8 9XD
Tel: +44 (0) 131 650 3737
Fax:+44 (0) 131 651 3201
Email: andrew.jarman@ed.ac.uk

Education Officer(s)
David Wilkinson (2002-2007)
Division of Developmental Neurobiology
National Institute for Medical Research
The Ridgeway, Mill Hill, London NW7 1AA, UK
tel: 020 8816 2404
fax: 020 8816 2593 / 2523
e-mail: dwilkin@nimr.mrc.ac.uk

Corinne Houart (2003-2008)
MRC Centre for Developmental Neurobiology,
King's College London,
4th Flr, New Hunt's House,
Guy's Campus,
London SE1 1UL.
Tel: 020 7848 6409
Fax: 020 7848 6550
e-mail: corinne.houart@kcl.ac.uk

Graduate Representative
Caroline Parkin (2003-2006)
Centre for Developmental Genetics,
University of Sheffield,
Firth Court, Western Bank,
Sheffield S10 2TN
Tel: 0114 222 2354
Fax: 0114 222 2788
e-mail: emujuice@hotmail.com

Committee Members

James Briscoe (2004-2009)
Division of Developmental Neurobiology
National Institute for Medical Research
The Ridgeway, Mill Hill, London NW7 1AA, UK
tel: 020 8816 2559
fax: 020 8816 2593
e-mail: jbrisco@nimr.mrc.ac.uk

Andrew Fleming (2004-2009)
Dept. of Animal & Plant Sciences
University of Sheffield
Western Bank
Sheffield S10 2TN
Tel: 0114 222 4830
Fax: 0114 222 0002
e-mail: A.Fleming@sheffield.ac.uk

Alicia Hidalgo (2002-2007)
School of Biosciences
The University of Birmingham
Edgbaston
Birmingham
B15 2TT
Tel: 0121 414 5416
Fax: 0121 414 5925
e-mail: A.Hidalgo@bham.ac.uk

Alfonso Martinez Arias (2000-2005)
Department of Genetics
University of Cambridge
Cambridge CB2 3EJ
e-mail: ama11@cus.cam.ac.uk

Betsy Pownall (2004-2009)
Department of Biology,
PO Box 373,
University of York,
York, YO10 5YW
United Kingdom
Tel: 01904 328692
E-mail: mep4@york.ac.uk

Michael Taylor (2003-2008)
Cardiff School of Biosciences,
Cardiff University Main Building,
Park Place,
Cardiff, CF10 3TL, UK.
Tel: 029 2087 5881
email: TaylorMV@cf.ac.uk

Alison Woolard (2002-2007)
Genetics Unit
Department of Biochemistry
University of Oxford
South Parks Road
Oxford OX1 3QU, UK
tel: 01865 275394
fax: 01865 275318
e-mail: woollard@bioch.ox.ac.uk