

BRITISH SOCIETY FOR DEVELOPMENTAL BIOLOGY

AUTUMN 1995 - No. 32

SPRING MEETING 1996

with BSCB

27-30th March

YORK

BSDB

'Regeneration
Growth &
Pattern'

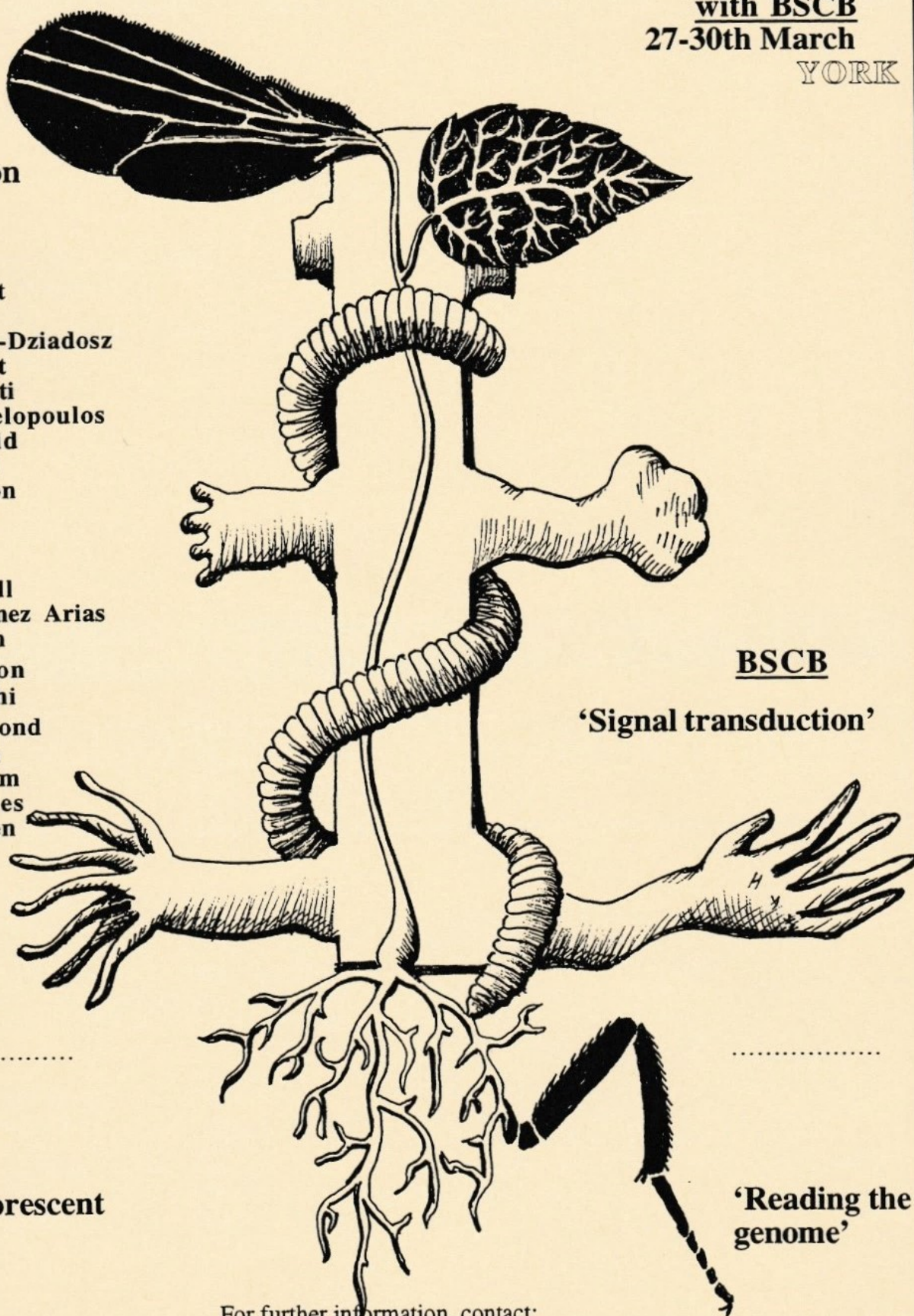
P.Bryant
J.Slack
M.Jerka-Dziadosz
S.Bryant
P.Ferretti
G.Michelopoulos
V.Schmid
J.Ansell
D.Winton
H.Bode
E.Salo
S.Hake
S.Carroll
A.Martinez Arias
S.Cohen
A.Hudson
G.Eguchi
P.Raymond
L.Dolan
P.Ingham
J.Brockes
M.Maden

BSCB

'Signal transduction'

'Green Fluorescent
Protein'

'Reading the
genome'



For further information, contact:

IFAB Communications, Institute for Applied Biology, Dept of Biology, PO Box 373, York YO1 5YW, UK.

Tel: 44 (0) 1904 432940: Fax: 44 (0) 1904 433029: Email: biocomms@york.ac.uk

BSDB Newsletter

No. 32 Autumn 1995

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SPRING SYMPOSIUM 1996

REGENERATION GROWTH AND PATTERN

University of York

The Spring 1996 Symposium, entitled "**Regeneration Growth and Pattern**", will take place at the University of York from **Wednesday 27th March to Saturday 30th March**. As usual, our Symposium will run concurrently with that of The British Society for Cell Biology.

The main **BSCB Symposium** is entitled "**Signal Transduction**". In addition to the two main symposia, there will be a **BSDB Workshop on "Fluorescent Green Protein"** (on Thursday 28th) and a **BSCB Workshop on "Reading the Genome"** (on Friday 29th), plus the joint Poster Session.

A **Registration Form, Abstract Form** and general information about the conference venue can be found in the 'detachable' **Centre Section** of the Newsletter. The full scientific programme appears on the following pages. Following the procedure at last year's Symposium, the organisers of **Regeneration Growth and Pattern** will choose a few graduate student or post-doc poster abstracts for short (15 minute) platform presentations in the main symposium programme - so **get your poster abstracts in on time!!**

CHAIRMAN'S HOMILY

All developmental biologists must have been delighted when the news of this year's Nobel Prize was announced. We have all known for years that Ed Lewis, Janni Nusslein-Volhard and Eric Wieschaus deserved the award; whether you work on flies or fish, hindbrain or heart, diffusion or determinants, their influence has been incalculable. Perhaps we had been wondering how much longer we would have to wait before they did receive the award, but a pleasure deferred is a pleasure doubled, and on behalf of all BSDB members I'd like to say how pleased we are and I'd like to offer Ed, Janni and Eric our congratulations.

The sad news, reported by Peter Thorogood below, is that Jim Bee died earlier this year. Jim was a friend of many of us, and the Society offers his family and his many friends our deepest sympathy.

Jim Smith.

JAMES BEE - A Remembrance (1954-1995)

Jim Bee died on the 11th August this year, from a brain tumour. My first encounter with Jim was in 1977, when he arrived in my lab (then at Oxford) as an enthusiastic, 'larger than life' graduate student, to do an M.Phil. He was full of expectations and hungry for the 'Oxford' experience; I had never supervised a graduate student before. It was a learning experience for us both and I'm sure that I learnt as much from him as he ever learnt from me. Any supervisory ability that I have now was acquired at least in part through mistakes made at Jim's expense. nevertheless, just fourteen months later, Jim's Masters thesis was passed by examiners who declared that ".....with a few more experiments, it could have been submitted for a doctorate". This achievement exemplifies Jim's character and 'work hard/ play hard' attitude to Life. The resultant paper was the first demonstration that tissue interactions underlie skeletogenic neural crest differentiation in amniotes.

Jim went on to do a Ph.D. at Kansas State University with Gary Conrad, working on corneal innervation. There, as at each stage in his academic career, he endeared himself to his colleagues. Gary and Abigail Conrad write that they will "...remember his constant bubbling enthusiasm, eagerness to debate new ideas,.....he was a joy to be near". A doctoral thesis and several seminal papers later, Jim returned to Europe to work with Klaus van der Mark at the Max Planck Institut für Biochemie at Munich, on chondrogenesis, collagens and anchorins. Here, we re-established our working relationship through a collaborative project on the role of collagens in early craniofacial development. I have good memories of those visits to Munich (usually, for some inexplicable reason, in the depths of winter) and of Jim, Klaus and their colleagues taking me around various Bavarian hostels.

Jim moved to London in 1984, to take up a lectureship in Anatomy at the Royal Veterinary College. Here he remained, through promotion to Reader, for the rest of his career. His hard work, high research standards, enthusiasm and sense of fun worked wonders for his department and colleagues. From an inauspicious start, in a lab in a converted stable block, he went on to establish a productive research group working on the dual themes of chondrogenesis and corneal development. His worldliness and sense of compassion made him an ideal choice as Senior Preclinical Tutor and several generations of students will have enduring memories of the support and guidance that Jim gave them. At the same time, he developed his teaching skills to the point that he was the recipient of awards, both national and international, for his teaching in the veterinary sciences.

It's now over three months since Jim died. Today I have just come from a developmental neurobiology meeting and it seemed strange not to meet him there, to chat over coffee or a drink and hear him excitedly relate his latest research findings or fill me in on the latest gossip in the research community. His conspicuous absence on these occasions is, for many of us scattered around the World, a harsh reminder of his premature and untimely death.

Peter Thorogood, October 1995.

**BSDB Spring Meeting:
University of York, 27 - 30 March 1996**

**SYMPOSIUM
'REGENERATION GROWTH AND PATTERN'**

Organisers: Vernon French (Edinburgh); Jonathan Slack (Bath)

Thursday 28 March

PLENARY LECTURE

- 9.00 P Bryant** Genetic approaches to the problem of cell proliferation control
(Irvine, USA)
-
- 10.10 **J Slack** Regeneration: the final frontier of developmental biology
(Bath, UK)
- 10.45 **M Jerka-Dziadosz** Genetic approach to ciliate pattern formation: does cytoskeletal
(Warsaw, Poland) organisation provide a prepattern?
- 11.50 **S Bryant** Regeneration: it's in our hands
(Irvine, USA)
- 12.25 **P Ferretti** Regeneration of fins and limbs and their different response to retinoic
(London, UK) acid
- 14.10 **G Michelopoulos** HGF as a regulator of hepatocyte growth and differentiation
(Pittsburgh, USA)
- 14.45 **V Schmid** Gene expression in the life cycle and the *in vitro* transdifferentiation
(Basel, Switzerland) of striated muscle cells of a hydrozoan medusa
- 15.20 Contributed paper 1
- 16.05 **I Ansell** Haematopoiesis: blood from a clone
(Edinburgh, UK)
- 16.40 **D Winton**
(Cambridge, UK)
- 17.15 Contributed paper 2

Friday 29 March

PLENARY LECTURE - BSCB

- 9.00 P Cohen** (Dundee)
-
- 10.10 **H Bode** Homeobox and forkhead genes in the patterning of hydra
(Irvine, USA)
- 10.45 **E Salo** Hox genes and the specification of body axes during bidirectional
(Barcelona, Spain) planarian regeneration
- 11.50 **S Hake** Genetic control of meristem functions
(Albany, USA)
- 12.25 **S Carroll** Development and evolution of arthropod appendages
(Madison, USA)

- 14.10 S Cohen (Heidelberg, Germany) Cell interactions across compartment boundaries: the basis for pattern formation during limb development in *Drosophila*
- 14.45 A Hudson (Edinburgh, UK) Dorsoventrality in leaves of *Antirrhinum majus*
- 15.20 Contributed paper 3
- 16.05 G Eguchi (Okazaki, Japan) Transdifferentiation of pigmented epithelial cells as a basic process of lens regeneration
- 16.40 P Raymond (Ann Arbor, USA) Role of cellular interactions in retinal regeneration in teleost fish
- 17.15 Contributed paper 4

Saturday 30 March

PLENARY LECTURE - BSCB

9.00 A Whittinghofer (Dortmund, Germany)

- 10.10
A Martinez Arias (Cambridge, UK) The function of Notch as a receptor for wingless in *Drosophila*
- 10.45 L Dolan (Norwich, UK) Diffusible signals in the patterning of an epidermis
- 11.50 P Ingham (London, UK) Control of proliferation and patterning by segment polarity genes in *Drosophila* appendages
- 12.25 J Brockes (London, UK) Origin and positional identity of progenitor cells in amphibian limb regeneration
- 13.00 M Maden (London, UK) The role of retinoic acid in regeneration

BSCB SYMPOSIUM 'SIGNAL TRANSDUCTION'

Organiser: Christopher Marshall (London)

Thursday 28 March

C Heldin (Uppsala, Sweden)
S Courtneidge (San Francisco, USA)
B Neel (Boston, USA)
A Pendergast (North Carolina, USA)
A Ridley (London, UK)
S Grant (Edinburgh, UK)
E Nigg (Geneva, Switzerland)
R Mülle (Marburg, Germany)
S Mitnacht (London, UK)
G Peters (London, UK)
M Doree (France)

Friday 29 March

PLENARY P Cohen (Dundee)

P Parker (London, UK)
C Marshall (London, UK)
P Shaw (Nottingham, UK)
L Mahadevan (London, UK)
J Smith (London, UK)
R Klein (Heidelberg, Germany)
D Bohman (Heidelberg, Germany)

Saturday 30 March

PLENARY A Whittinghofer (Dortmund)
M Saraste (Heidelberg, Germany)
M Katan (London, UK)
I Campbell (Oxford, UK)
J Heath (Birmingham, UK)

WORKSHOPS

Thursday 28 March :

Friday 29 March :

BSDB: 'GREEN FLUORESCENT PROTEIN'
BSCB: 'READING THE GENOME'

FUTURE BSDB MEETINGS

AUTUMN 1996, University of Bath.

'30 Years of Positional Information'

This meeting, organised by **Jim Smith** and **Cheryll Tickle** with **Jonathan Slack** as local organiser, will be held at the University of Bath from **11th-13th September 1996** inclusive.

INVITED SPEAKERS:

Kathryn Anderson (Berkeley)
Sean Carroll (Madison)
Steve Cohen (Heidelberg)
Jonathan Cooke (London)
Denis Duboule (Geneva)
John Gurdon (Cambridge)
Brigid Hogan (Nashville)
Nigel Holder (London)
Herbert Jackle (Gottingen)
Thomas Jessell (Columbia)

Cynthia Kenyon (San Francisco)
Robb Krumlauf (London)
Peter Lawrence (Cambridge)
Mike Levine (San Diego)
Hans Meinhardt (Tubingen)
Doug Melton (Harvard)
Elliot Meyerowitz (Cal Tech)
Christiane Nusslein-Volhard (Tubingen)
Jonathan Slack (Bath)
Cliff Tabin (Harvard)

A full programme, together with Registration and Abstract forms, will appear in the next issue of the Newsletter.

SPRING 1997, University of Warwick.

'Genetic Control of Vertebrate Development'

This meeting will be organised by **Nigel Holder**, **Rosa Beddington**, and **Phil Ingham**. It will be held jointly with the Genetical Society at the University of Warwick from **19th-21st March 1997** inclusive.

The meeting will focus on advances in the dissection of the molecular mechanisms underlying inductive interactions in the vertebrate embryo. New information is likely to derive primarily from genetic screens currently

being performed on the zebrafish and from targeted gene mutation in the mouse. These approaches will reveal the players involved in important signalling pathways, but may also allow eventual understanding of functional redundancy. Many of these pathways will be conserved and repeated in various combinations, and the symposium programme is expected to include some work on invertebrates (worms and flies) which relates squarely to the main theme of the meeting.

Further details will appear in the next issue of the Newsletter

Topics for Future Society Meetings

One of the major tasks of the BSDB Committee is to select topics for 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 major Spring Symposium, a smaller two day Autumn meeting, or for a one day workshop, please get in touch with the Meetings Secretary, Ian Jackson (see list of addresses).

OTHER MEETINGS OF INTEREST

March 1996 is clearly '*National Regeneration Month*', as illustrated below.....

15th Symposium of the Singer Society for Regeneration and Development 'MODELS OF REGENERATION: LOWER VERSUS HIGHER VERTEBRATES'

This meeting, organised by **Patrizia Ferretti**, will be held at **The Institute of Child Health, University of London**, from **21st-22nd March 1996**.

The conference format will include 30 min talks and short presentations selected from the submitted Abstracts, which must be received, together with the Registration Form, by **15th January 1996**.

Speakers will include:

H.Wallace (Birmingham, UK)
R.Nordlander (Ohio, USA)
B.Carson (Michigan, USA)
J.Brockes (London, UK)
S.Dunnett (Cambridge, UK)
J.Clarke (London, UK)

R.Borgens (Purdue, USA)
J.Edwards (Seattle, USA)
A.Forge (London, UK)
K.Muneoka (Tulane, USA)
T.Partridge (London, UK)
H-G.Simon (Princeton, USA)

Further programme details, Registration Form and Abstract Form from:

Dr Patrizia Ferretti,
Developmental Biology Unit, Institute of Child Health,
University of London, 30 Guilford Street,
London WC1N 1EH.

5th INTERNATIONAL LIMB DEVELOPMENT AND REGENERATION CONFERENCE

This meeting, organised by **Malcolm Maden**, will be held at the **University of YORK**, from **25th-27th March 1996** - immediately preceding the BSDB Symposium.

The daily format will be the same as at previous conferences, with a plenary speaker followed by short platform presentations. All attendees are encouraged to present data in the form of either a talk or a poster.

For Registration Details and further information, contact:

Dr Malcolm Maden,
Developmental Biology Research Centre,
King's College London,
26-29 Drury Lane,
London WC2B 5RL.

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ZEBRAFISH DEVELOPMENT AND GENETICS

The 2nd biennial meeting on **Zebrafish Development and Genetics**, organised by **Nigel Holder** (London), **Nancy Hopkins** (MIT), **Phil Ingham** (London), **Christiane Nusslein-Volhard** (Tubingen) and **Monte Westerfield** (Oregon), will be held at the **Cold Spring Harbor Laboratory** on **24th-28th April 1996**.

The format of the meeting will include short talks selected by the organisers from submitted poster abstracts. Abstract and registration materials are available from the address below. **The abstract deadline is February 7th 1996**. There is particular encouragement for young people to attend and

applications have been made for government and industrial funds to provide at least partial support for graduate students and postdocs*

Session

Epiboly and gastrulation
Inductive interactions
Morphogenesis
Pattern regulation
Neural crest and head development
CNS development
Blood, heart & intermediate mesoderm
Genetic mapping & cytogenetics
Gene transfer, gene expression & new methodologies

Chair

M.Mullins (Tubingen)
C.Thisse (Strasbourg)
C.Kimmel (Oregon)
D.Duboule (Geneva)
J.Eisen (Oregon)
S.Wilson (London)
M.Fishman (Massachusetts)
J.Postlethwaite (Oregon)
N.Hopkins (MIT)

**(BSDB members can, of course, apply to the Society for support)*

Abstract and registration details from:

Cold Spring Harbor Laboratory
The Meetings & Courses Office,

1 Bungtown Road, PO Box 100,
Cold Spring Harbor, NY 11724-2213.

e-mail: meetings@cschl.org ; Tel: (516) 367 8346; Fax: (516) 367 8845

World Wide Web site at <http://www.cshl.org/>

SYMPOSIUM ON SYNAPTIC PLASTICITY

This meeting, organised by **David Price** and **Richard Ribchester**, will be held at the **University of Edinburgh** on **3rd July 1996**.

The Symposium will be concerned with the search for common mechanisms for regulating the structure and function of nerve connections during development and after nerve injury. The main focus will be on functions of activity, neurotrophic factors and cell adhesion molecules in synaptic plasticity.

Speakers will include:

Visual cortical plasticity

D.Price (Edinburgh)
L.Maffei (Pisa, Italy)
C.Shatz (Berkeley, USA)
D.Willshaw (Edinburgh)

Neuromuscular plasticity

R.Ribchester (Edinburgh)
J.Lichtman (St.Louis, USA)
W.Thompson (Austin, USA)
M-M.Poo (San Diego, USA)
F.Walsh (London)

Further programme details, contact:

Dr R.Ribchester or Dr D.Price,
Dept of Physiology, University Medical School,
Teviot Place,
Edinburgh EH8 9AG.

Fax: (44) 0131 650 6527; e-mail: R.R.Ribchester@ed.ac.uk or D.J.Price@ed.ac.uk

GRADUATE STUDENT COMMITTEE MEMBER

A major function of the BSDB is to help graduate students increase their experience and forge contacts with other scientists. Graduate students are the future of Developmental Biology and of the Society. It is vital that students have a means to communicate any suggestions, comments or complaints to those who make the decisions, so there is a graduate representative serving on the Committee. Currently, however, there is a vacancy (Richard Twyman got doctored!) so **please VOLUNTEER**, by approaching any member of the Committee.

DISCOUNT JOURNAL SUBSCRIPTIONS

Members of the **BSDB** are entitled to discounted personal subscription rates to a number of leading developmental biology journals.

The Company of Biologists offers a special personal subscription rate to '**Development**', of **£130** (instead of £140). An application form for **Development** is included in the Centre Section of the Newsletter. In addition, members can subscribe to **BioEssays** at the reduced rate of **£60** - see page 15 of the Newsletter for details.

Academic Press continues to offer a very significant discount on '**Developmental Biology**' for BSDB members. For 1996, the normal personal overseas subscription rate is

\$403, but society members can subscribe at the reduced rate of **\$230**. An order form is enclosed with this edition of the Newsletter.

Elsevier offer a reduced rate to members for '**Trends in Genetics**'. For 1996, the member's rate is **£62** (instead of £78) - orders and payments should be addressed to : Subscriptions, Elsevier Trends Journals, Oxford Fulfillment Centre, PO Box 800, Kidlington, OXON UK OX5 1DX.

We are negotiating with Current Biology Ltd for reduced subscriptions. The likely outcome is a 50% reduction on **Current Biology** and a 10% reduction on **Current Opinion in Genetics & Development**. Members will be contacted by the publishers.

BSDB TRAVEL GRANTS

The Committee of the Society has decided to increase the funds available to support travel by postgraduate or postdoctoral members to attend meetings and also workshops and practical courses.

To apply for a travel grant, members should write to the treasurer giving details of the proposed visit and the breakdown of the amount of money requested (see Note 1). They should enclose with their application a letter of support from their supervisor or laboratory head and, if appropriate, the abstract of the poster or talk they intend to present.

Please note:

1. BSDB travel grants are for travel at the lowest rate (student or standard class ticket), conference fees and accommodation, but not conference dinners! Where possible, the whole

amount will be covered. The grants currently being given are: BSDB meeting - the full amount; other meetings - £100-£150; practical courses - up to £300. These amounts will, however, have to be lowered if demand increases.

2. Applications will be grouped and reviewed at the end of each month, so members should apply 2-3 months before they need the grant.

3. No application will be considered for a refund on money already spent.

4. No more than three people from one lab will be supported for any one meeting.

5. Only applications from members will be considered.

Jonathan Bard, Treasurer.

Louie Hamilton Fund

Louie Hamilton, the distinguished developmental biologist who was disabled in the latter part of her life, left a bequest to the

Society with the intention that the interest should provide travel support for members who are disabled. Applicants who qualify for this fund should contact the Treasurer.

CENTRE SECTION

This "Centre Section" can be removed without damaging the rest of the Newsletter. It contains a form for subscribing to Development (below), a membership application and banker's order form, a subscription amendment form and the Registration and Abstract forms for the Spring Symposium Meeting at York University.

Development

Members of the BSDB are entitled to a reduction in the subscription price to 'Development'. The general 1996 personal subscription is £140 but, for BSDB members, it is (only) £130. This price includes the casebound Supplement volume which, for 1996, will be the proceedings of the "Regeneration Growth and Pattern" symposium.

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To: **Development**
The Company of Biologists Ltd,
Bidder Building,
140 Cowley Road,
Cambridge, CB4 4DL UK.

Please enter my subscription to **Development** for 1996. I undertake not to pass my subscription copies on to a library. I enclose a cheque for **£130** made payable to "The Company of Biologists Ltd".

Signature:

Name:

Address:

.....

.....

Other CoB Journals, including BioEssays, the Journal of Cell Science and the Journal of Experimental Biology, are also available at reduced rates. For BioEssays, see page 15; JCS is £99 and JEB is £99. To subscribe, write to the above address with your cheque and a signed undertaking that you will not pass your individual copy on to a library.

GENERAL INFORMATION

BSCB/BSDB SPRING MEETING: UNIVERSITY OF YORK

27 - 30 March 1996

The Joint Spring Meeting of the British Societies for Cell Biology and for Developmental Biology will take place at the University of York.

PROVISIONAL OUTLINE PROGRAMME

Wednesday 27 March	Registration in the Exhibition Centre	17.00 - 21.00
Thursday 28 March	Plenary Lecture (BSDB)	09.00 - 10.00
	Symposia (BSDB) <i>Regeneration Growth and Pattern</i>	10.10 - 17.30
	(BSCB) <i>Signal Transduction</i>	
	Workshop (BSDB) <i>Green Fluorescent Protein</i>	10.10 - 17.30
	BSCB and BSDB AGMs	17.35 - 18.30
	Poster Session	19.30 - 22.00
Friday 29 March	Plenary Lecture (BSCB)	09.00 - 10.00
	BSCB/BSDB Symposia	10.10 - 17.35
	Workshop (BSCB) <i>Reading the Genome</i>	10.10 - 17.30
	Public Lecture	18.00 - 19.00
	Conference Banquet, National Railway Museum	19.30 - 23.00
Saturday 30 March	Plenary Lecture (BSCB)	09.00 - 10.00
	BSCB/BSDB Symposia	10.10 - 13.30

Public Lecture

Dr Gerard Evan (ICRF) will give a lecture 'What is cancer, and what are scientists doing about it?'. The lecture is open to members of the public as well as members of the Societies.

Travel to York

Leeds/Bradford Airport is less than two hours from York. A bus leaves the airport for Leeds railway station at 20 minutes past every hour; the journey takes about 50 minutes. A taxi from the airport to Leeds station costs about £11.00 and takes about 30 minutes. A direct train service is now available between Manchester Airport and York, takes two hours and costs £19.50 return. From London Heathrow take the underground to Kings Cross station. From London Gatwick take a train to Victoria Station and from there the underground to Kings Cross.

There are excellent rail links to York from London Kings Cross station. Train fares from Kings Cross to York vary depending on day and time of departure. Tickets can range from £35 - £98 for a return and £34 - £49 for a single. Cheaper Apex train fares, which must be booked a minimum of seven days in advance, can be obtained if you are travelling in the UK from a location more than 150 miles from York (£35 return, £34 single). Taxis from outside York station to the University take about 15 minutes and cost around £2.50. Buses leave the railway station (Nos. 4/5) for the University every 12 minutes during the day. North Sea Ferries dock at Hull. National Express Coaches leave Hull Docks and stop in York.

Update Information

Details given here may be subject to change. Now that the Internet is used by many biologists, information on this conference will be made available and continuously updated on the World Wide Web. From 17 November, information will be accessible via the University of York's WWW server. The URL is: <http://www.york.ac.uk/depts/biol/bscbdb/meeting.html>

REGISTRATION**PLEASE PHOTOCOPY****BSCB/BSDB SPRING MEETING: UNIVERSITY OF YORK****27 - 30 March 1996**

Name Prof/Dr/Mr/Ms

Address

Telephone Fax email

Accommodation will be in University of York residences with a choice of standard or en-suite rooms. The banquet will be held at the National Railway Museum and is limited to the first 350. Registration includes the programme, abstracts, tea and coffee. Students have a reduced registration, **provided evidence of status is supplied with this form.**

Please circle details

Society	Membership Status	Registration Fee
BSCB	Society member	£50
BSDB	Student member	£15
	Non-member	£75
	Student non-member	£30

	WED 27	THURS 28	FRI 29	SAT 30	TOTALS
Lunch (£6/day)					£
Dinner (£8/day)			*		£
OR Banquet* (£30)			*		£
Bed and Breakfast Standard (£21.50)					£
Bed and Breakfast En-suite (£30)					£
Registration					£50 (Delete as applicable) £15 £75 £30
Credit card charge (5%)					£
TOTAL					£

* Note on Friday choose either dinner or Banquet

Special dietary requirements

Cheques should be made payable to the 'University of York'. Bank drafts IN STERLING drawn on a UK bank made payable to the 'University of York'

Credit Cards Accepted VISA ☐ ACCESS (MASTERCARD) ☐

(Subject to a 5% surcharge)

Number Expiry Date Signature

Return this form, and the abstract form if applicable by **31 January 1996** to:

BSCB/BSDB Meeting, IFAB Communications, Department of Biology, University of York, PO Box 373, York YO1 5YW
Tel: 44 (0) 1904 432940 Fax: 44 (0) 1904 433029 email: biocomms@york.ac.uk

BSCB/BSDB SPRING MEETING: UNIVERSITY OF YORK
27 - 30 March 1996

Abstracts from invited speakers and poster presentations will be included in the Abstract Book. Type the abstract to fit in the box below (12.5cm x 18cm) using 12 point typeface (Times Roman if possible). Title in **CAPITALS**, Authors and Addresses in **Upper and Lower Case**. Indicate authors attending the meeting with an asterisk*. Leave a line blank between the address and the text. **Please, if possible include a disk of the text, for PC or Mac, in any word-processing format but also include an ASCII (plain text) file.**

Poster boards will be 1m square. Posters to be affixed by Velcro which will be provided at the registration desk.

Please circle details:

a) Invited Speaker

or

Poster Presentation

b) Subject of Presentation*

- Signal Transduction
- Regeneration
- Cell Biology
- Developmental Biology

**Please select the category that best fits your poster presentation*

c) Eligibility for poster prize

- BSCB student
- BSDB student

Return the completed abstract form, computer disk together with your cheque (payable to the University of York) to:

*IFAB Communications
Department of Biology
University of York
PO Box 373
York YO1 5YW*

by 31 January 1996

APPLICATION FOR BSDB MEMBERSHIP

Full name: Title ... Degrees

Professional address:

.....

.....

.....

Research interests:

.....

I wish to apply for Ordinary (£20)/Student (£7.50) membership of the Society (delete as applicable)
Applications must be endorsed by two Society members who should sign below:

..... Name:

..... Name:

Please return this form, together with the completed Banker's Order (below) to the Society Secretary:
Prof. J.M.W.Slack, School of Biology & Biochemistry, South Building,
University of Bath, Bath BA2 7AY.

For Society Use

Acknowledged: Mailing list:

To: The Manager,

..... Bank

.....

.....

.....

Please pay to the **British Society for Developmental Biology,**
Account no: 80867675
Barclays Bank plc, P.O. Box No. 4BP,
Liberty House, 212 Regent Street,
LONDON W1A 4BP.

the sum of £ (..... pounds) on October 1st 1995 and on the same day each year
succeeding unless this instruction is altered in writing by me. This instruction replaces any previous
instruction of payment to the British Society of Developmental Biology, which should be cancelled.

Signature: Account No:

Name*: Date :

Address:

.....

.....

* as shown on cheque book.

SUBSCRIPTION REMINDER

Membership subscriptions were increased several years ago to the current rates of **£20** for full members and **£7.50** for graduate students. A few members are still paying at old rates - those paying only £10 will be deleted from the mailing list after one more reminder (those contributing less than this have already gone!). Please check your bankers order to ensure that you are up-to-date. If you have not yet upgraded it, please fill in the form below and send it to **your own bank**, (not to the Treasurer or the Secretary of the Society).

Please note that the graduate student rate of £7.50 is applicable **for 3 years only**, after which you must pay the full rate, regardless of your status.

Jonathan Bard, BSDB Treasurer.

To: The Manager,

..... Bank

.....

.....

.....

Please pay to the **British Society for Developmental Biology,**
Account no: 80867675
Barclays Bank plc,
P.O. Box No. 4BP,
Liberty House, 212 Regent Street,
LONDON W1A 4BP.

the sum of £ (pounds) on October 1st 1995 and on the same day each year succeeding unless this instruction is altered in writing by me. This instruction replaces any previous instruction of payment to the British Society of Developmental Biology, which should be cancelled.

Signature: Account No:

Name*: Date :

Address:

.....

.....

* as shown on cheque book.

NOMINATIONS FOR BSDE COMMITTEE

The AGM of the Society will be held during the York Symposium. One item will be the election of new committee members to replace those retiring in 1996.

If you wish to nominate someone for the committee, please fill in this form, including the candidate's consent, and return to the secretary, **not later than 6 weeks before the date of the AGM.**

Name:

Proposer:

Secunder:

I agree to serve if elected:

(Signature of candidate)

Return completed form to: Prof. J.M.W.Slack
School of Biology & Biochemistry,
South Building,
University of Bath,
Bath BA2 7AY.

British Society for Developmental Biology

Financial statement - Sept 1994-Aug 1995

CAPITAL ACCOUNT

<u>1993/4</u>	<u>Investment</u>	<u>1994/5</u>
£12,952	National Savings	£13,696
£584	Treasury Stock	£584
£48,879	Barclays deposit a/c	£11,623
£518	Barclays current a/c	£12,197
	Barclays: Louie Hamilton a/c	£2,552
	Abbey National savings a/c ¹	£23,811
	Abbey National 2 year bond ²	£34,000
£63,933	Current Assets	£98,463
£2,030	Less allowance for uncashed cheques	£4,455
£61,903	Net Assets	£94,008

CURRENT ACCOUNT

<u>Expenditure</u>		<u>Income</u>	
Travel grants	£11,098	Membership (standing order)	£12,316
Durham meeting	£1,875	Membership (cheques)	£1,091
Kent meeting	£10,918	Royalties	£407
Committee expenses	£1,304	Edinburgh meeting	£2,485
New computers	£2,967	Symposium grant (CoB)	£12,410
Membership reimbursement	£160	Capitation fee (CoB)	£9,134
Bank commission	£303	Interest	
Last year's uncashed cheques	£2,030	Barclays current a/c	£354
Total	£30,655	Barclays deposit a/c	£1,414
Transfer to capital account	£8,194	National savings	£774
		Treasury stock	to come ⁴
Total expenditure (committed³)	£38,849	Abbey National	£764
Uncashed cheques	£4,455	Total	£3,306
Net profit on year	£3,740	Total income	£38,849

Notes

1. This account, available to aid handicapped members, has not hitherto been included in the accounts.
2. This account pays interest annually in March and includes, for the first time, £23,786, the surplus on BSDB practical courses; its interest is intended to provide grants (maximum of 50%) for members to go on courses, and £1,055 was spent in 1994/5 for this purpose.
3. No allowance is made for the Newsletter as money for this was allocated in a previous year and placed in an ICRF account. Any debit will be covered in 1995/6.
4. This sum (£34) was lost by Barclays when they changed our account number - it will turn up!

Jonathan Bard
Honorary Treasurer.

Wanted !

The new Developmental Biology Group at the University of Bath wants back issues of **DEVELOPMENTAL BIOLOGY**, preferably 1987-1994 inclusive. Price to be paid by negotiation.

If you have a run that is surplus to requirements, please contact:

Jonathan Slack

School of Biology & Biochemistry,
South Building, University of Bath,
Bath BA2 7AY.

Tel: 01225 826597 Fax: 01225 826779
e-mail j.m.w.slack@bath.ac.uk

EMBRYO BANKING FACILITIES

The Medical Research Council has established two mouse embryo banks, one at the MRC Experimental Embryology and Teratology Unit (EETU) and the other at the MRC Radiobiology Unit (RBU), to provide a service to the scientific community to safeguard unique genetic stocks. These banks already contain a wide range of important mutant, transgenic and inbred lines that are available for recovery and supply (as frozen embryos or breeding nuclei). Now the banks offer services for the collection and storage of stocks.

The preferred method for preserving stocks is for the client to supply embryos for immediate cryopreservation. Alternatively, the EETU will receive limited numbers of mice to produce embryos for storage. Under certain circumstances, EETU bank staff will travel to collect embryos at the site of origin. Both banks can supply frozen embryos for stock rederivation or live mice.

For further information regarding this service and the associated charges, **please contact:**

The Embryo Bank Co-ordinator,
MRC Experimental Embryology and Teratology Unit,
St. George's Hospital Medical School,
Cranmer Terrace, Tooting, London SW17 0RE.
Tel: 0181 725 2834/2824; Fax: 0181 767 9109

or

The Embryo Bank Co-ordinator,
MRC Mammalian Genetics Unit,
Chilton, Didcot, Oxon, OX11 0RD.
Tel: 01235 820 666 Ext 451; Fax: 01235 835 691

Post-doc research positions

Two postdoctoral positions are available to study the involvement of TGF β and its receptors in early mammalian development, specifically in primitive haematopoiesis and vasculogenesis. The approaches taken will be extensive molecular developmental analysis of existent TGF β 1 knock out mice and the generation and analysis of TGF β receptor transgenic mice, using a binary tetracycline-inducible system. Applicants should be experienced in post-implantation murine embryology, transgenic mouse production and analysis, or be expert molecular biologists familiar with gene transfer and expression technology. They would join an established group of 10 working on related projects.

The posts are MRC funded on the RA1A scale, dependent on age and experience.

Applications with full CV and three referees should be sent to:

Dr Rosemary Akhurst, Dept of Medical Genetics, Glasgow University,
Royal Hospital for Sick Children, Yorkhill, Glasgow G3 8SJ.
Tel: 0141 201 0365; Fax: 0141 357 4277; e-mail: gpva06@udcf.gla.ac.uk.

BOOK REVIEW

SEX DETERMINATION, DIFFERENTIATION AND INTERSEXUALITY IN PLACENTAL MAMMALS

R.H.F. Hunter

Cambridge University Press 310 pages
Hardback ISBN 0-521-46218-5

Hunter's book is neither a standard textbook nor a collection of papers, but is a series of review-style chapters, each covering a different aspect of sex determination, differentiation and intersexuality. These chapters are broad-ranging and encompass topics such as gonad differentiation, anomalous sexual development in sheep and goats, and asymmetries of the reproductive system. The theme of the book results from asking the questions "How and why do males become male and females become female?" and "What are the consequences if the decision is not incisive?". In order to answer these questions, Hunter describes the known genetic components that contribute to mammalian sex determination and the processes of male and female gonad and genital tract development. He continues by describing abnormal sexual development in farm animals, lab mice and humans in some detail, including examples of freemartinism, intersexuality, sex reversal, testicular feminisation and chimeric individuals.

Parts of this book make fascinating reading. In particular, the chapter on "Anomalous development in domestic species" is excellent. This is clearly the author's area of expertise and he offers an expansive account of the altered anatomy, physiology and endocrinology of individuals with abnormal development. The text is accompanied by a series of highly informative figures, drawings and photographs. Hunter describes his own work and that of others in a detailed, clear and enthusiastic manner. A particular strength, which is consistent throughout this book, is that it is extremely thoroughly referenced: it is an excellent source for tracing both original papers and more recent reviews. For this reason alone, it deserves a place in any reference library.

Sadly, this book has a number of weaknesses. Despite being very well-researched, the author fails to really draw together the areas of sex determination, differentiation and intersexuality. For example, Hunter discusses the role of certain hormones in normal sexual development in one chapter, and describes abnormal sexual differentiation of the same animal in another chapter, but never links the two together (eg by postulating a role for altered hormone levels as a cause or an effect of the abnormalities). Similarly, Hunter describes current hypotheses of the molecular basis of sex determination in some detail, but does not attempt

to use this knowledge to hypothesise about the molecular basis of intersexuality. In this way, the author offers no new insights in these fields.

In an early chapter on "Mechanisms of sex determination", Hunter makes a worrying statement. In a discussion on genes involved in sex determination, he describes candidates for the sex determining genes, the discovery of SRY, its architecture and its DNA-binding ability. The latter is described in terms of the HMG box, which is able to bind to specific DNA sequences. This specificity, Hunter writes, '*is determined not only by the recognition helix that sits in the major groove of the DNA, but also by a flexible segment at the amino-terminal end of the homeobox...*' But SRY and HMG box-containing genes do not belong to the family of homeobox genes (nor do they bind to the major groove of DNA), thus rendering the ensuing discussion of homeobox genes, complete with an out-of-date diagram of mouse and *Drosophila* Hox gene clusters, totally irrelevant. Perhaps the author should have commissioned this chapter to a molecular biologist.

It is hard to imagine exactly by whom this book would be read. To some extent, the author achieves his aim for the book as a text for advanced undergraduates and new postgraduates: the chapters on abnormal development would be interesting to almost anyone, and are certainly clear enough for a newcomer to the field to easily understand. In other places, however, the style of writing is so extraordinarily long-winded that the author's point is not always obvious. For example, the following sentence (which appears on p 109-110) could surely be simplified; '*In that the dogma, even to this day, is that events within the genital tract are subject to regulation by secretion of the gonads and, in females, in due course also by those of the extra-embryonic membranes (ie by placental hormones), anomalous differentiation and development of the duct system may be an expression of perturbed function in the neighbouring gonad(s)*'*

Like many books of this type, it is no sooner published that it is out-of-date. Although available for the first time in 1995, most of the text was written by the middle of 1993 and updated late in 1993. Thus there remains a gap in excess of a year, during which there have been many new findings, particularly in the field of molecular biology. his book therefore serves better as an introduction to the fields of sex determination and differentiation, and as a source of original papers, rather than as a complete account.

Colette Johnston,
Dept of Craniofacial Development, Guy's Hospital,
London.

(* succinctly so! - Ed.)

BSDB COMMITTEE members

and other useful addresses

The main function of the BSDB Committee is to organise our meetings, from deciding on appropriate topics to arranging organisers and venues. If you have any ideas on topics for a good meeting, or on a good venue, don't hesitate to convey them to a committee member. The officers of the society have specific functions. Jim Smith (Chairman) keeps order; Jonathan Slack (Secretary) deals with the membership list; Jonathan Bard (Treasurer) handles the subscriptions and awards travel grants; Ian Jackson (Meetings Secretary) does most of the work in arranging meetings and deciding on venues; Vernon French (Publications Secretary) assembles this Newsletter and helps edit the Symposium volume. These Officials will be happy to answer any questions relating to their subjects.

Officers

Chairman

Jim Smith (1994-1999)

National Institute for Medical Research,
The Ridgeway, Mill Hill,
London NW7 1AA.
Tel: 0181 913 8524
Fax: 0181 913 8584
e-mail: j-im@nimr.mrc.ac.uk

Secretary

Jonathan Slack (1993-1998)

School of Biology & Biochemistry,
South Building, University of Bath,
Bath BA2 7AY.
Tel: 01225 826597
Fax: 01225 826779
e-mail: j.m.w.slack@bath.ac.uk

Meetings Secretary

Ian Jackson (1993-1998)

MRC Human Genetics Unit,
Western General Hospital,
Crewe Road,
Edinburgh EH4 2XU, Scotland.
Tel: 0131 332 2471
e-mail: ian@hgu.mrc.ac.uk

Treasurer

Jonathan Bard (1994-1999)

Dept of Anatomy,
Edinburgh University Medical School,
Teviot Place,
Edinburgh EH8 9AG, Scotland.
Tel: 0131 650 3107
Fax: 0131 650 6545
e-mail: jblb@festival.ed.ac.uk

Publications Secretary

Vernon French (1995-2000)

ICAPB, University of Edinburgh,
Kings Buildings, West Mains Rd,
Edinburgh EH9 3JT, Scotland.
Tel: 0131 650 5480
Fax: 0131 667 3210

Graduate Representative

Vacant

Committee Members

Rosemary Akhurst (1994-1999)

Duncan Guthrie Institute,
Yorkhills Hospital,
Glasgow G3 8SJ, Scotland.
Tel: 0141 339 6996
Fax: 0141 357 4277
e-mail: rakhurst@hgmpr.mrc.ac.uk

Enrico Coen (1991-1996)

John Innes Institute,
Colney Lane,
Norwich, NR4 7UH.
Tel: 01603 52571
Fax: 01603 56844

Alistair Hetherington (1992-1997)

Dept of Biology,
University of Lancaster,
Lancaster LA1 4YW.
Tel: 01524 65201 ex3491
Fax: 01524 843854
e-mail: a.hetherington@lancaster.ac.uk

Elizabeth Jones (1995-2000)

Dept of Biological Sciences,
University of Warwick,
Coventry CV4 7AL.
Tel: 01203 523523 ex3061
e-mail: EA@dna.bio.warwick.ac.uk

Otteline Leyser (1995-2000)

Dept of Biology,
University of York, P.O.Box 373,
York YO1 5YW.
Tel: 01904 432837 ex4333
Fax: 01904 432860

Malcolm Maden (1991-1996)

Anatomy & Human Biology Group,
King's College, 26-29 Drury Lane,
London WC2B 5RL.
Tel: 0171 836 8851 ex284
Fax: 1071 497 9078

Jack Price (1992-1997)

Developmental Neurobiology,
Smith Kline Beecham Pharmaceuticals,
Coldharbour Road, Harlow,
Essex CM19 5AD.
Tel: 01279 622000
Fax: 01279 622100

Paul Sharpe (1994-1999)

Dept of Craniofacial Development,
Guy's Tower, UMDS Guy's Campus,
London SE1 9RT.
Tel: 0171 955 2687
Fax: 0171 955 2704
e-mail: PSHARPE@HGMP.MRC.AC.UK

David Shepherd (1991-1996)

Dept of Biological Sciences,
University of Southampton,
Bassett Crescent East,
Southampton SO9 2TU.
Tel: 01703 594389
Fax: 01703 594269
e-mail: BY1097@UK.AC.SOTON.IBM

Daniel St. Johnston (1995-2000)

Wellcome/CRC Institute, Tennis Court Rd,
Cambridge CB2 1QR.
Tel: 01223 334127
Fax: 01223 334089
e-mail: ds139@molecular-
studies.biology.cambridge.ac.uk

BSCB Officers

Ron Laskey (President)

Wellcome/CRC Institute, Tennis Court Rd,
Cambridge CB2 1QR.
Tel: 01223 334000

Birgit Lane (Secretary),

Dept of Anatomy, The University,
Dundee DD1 4HN, Scotland.
Tel: 0382 231181

Murray Stewart (Meetings Secretary)

MRC Laboratory of Molecular Biology,
Hills Rd, Cambridge CB2 2QH.
Tel: 01223 402463,
Fax: 01223 213556

S. Kellie (Treasurer)

Yamanouchi Research Institute (UK),
Littlemore Hospital, Oxford OX4 4XN.
Tel: 01865 747100
Fax: 01865 748974

John Tooze (Publications Secretary)

ICRF, PO Box 123,
44 Lincoln's Inn Fields,
London WC2A 3PX.
Tel: 0171 269 3497
Fax: 0171 269 3482

DEVELOPMENT Editor-in Chief

Chris Wylie,

Institute of Human Genetics,
University of Minnesota, School of Medicine,
Box 206 Mayo, 420 Delaware Street SE,
Minneapolis, MN 55455,
USA.
Tel: 001 612 625 9429
Fax: 001 612 626 7031

BSDB on WWW

**We now have a web entry which will
give key information about the Society.
It can be found at:**

<http://www.ana.ed.ac.uk/BSDB>

WHERE ARE YOU NOW?

This Newsletter is our only way of keeping in touch with the membership of the Society, so it is really important that we have your **CORRECT CURRENT ADDRESS**. The cost of printing and mailing the Newsletter twice a year represents a significant proportion of the membership fee so, if we send it to the wrong place, not only are you missing out on the Society's news, you are also wasting your money (as well as our time and effort)!!

If you have moved (but this copy of the Newsletter has been re-directed to you) **or you are about to move, or you have a current address for any of the members listed below, PLEASE** fill in the Change of Address slip and return it to the Secretary, Jonathan Slack, at the address shown. Thank you.

Dr. J. Adu
Miss S. Barnes
Dr. P.J. Kelley
Dr. P. Rooney
Dr. A.T. Wood

NOTIFICATION OF CHANGE OF ADDRESS

NAME:

Note that from/...../ 199.....
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School of Biology & Biochemistry,
South Building,
University of Bath,
Bath BA2 7AY.

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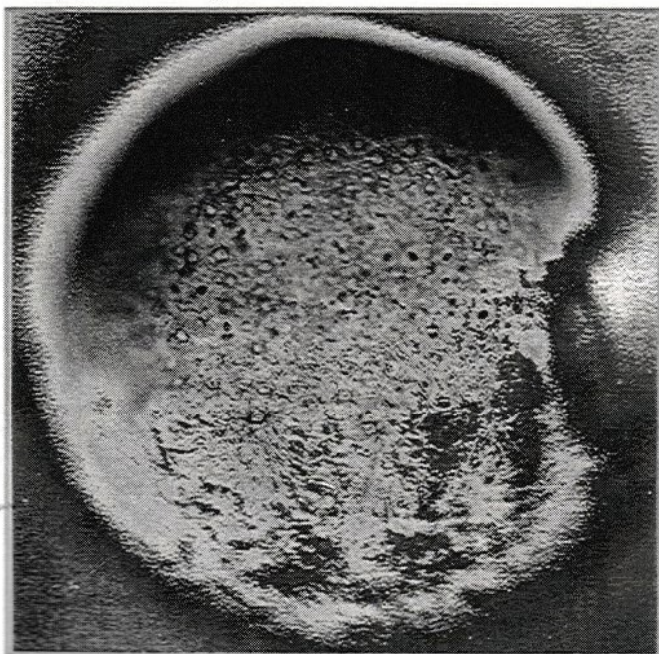
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A sampling of topics, which have recently appeared in *BioEssays*, of interest to BSDB members:

Combinatorial signalling in development; Regulation of yolk protein gene expression in *Drosophila*; Differentiation of endothelial cells; CD44 isoforms in differentiation; Nuclear/growth factors; Ethylene as a plant developmental signal; The MyoD gene family and muscle development; Integrins and signal transduction; Homeodomain proteins; Mammalian sex chromosome evolution; *Arabidopsis* root and shoot development; Compartments in *Drosophila*; Plant disease lesion mimics; *c-fos* and bone development; Determinants of *C. elegans* blastomere identity; The multicellular development of *Escherichia coli*; Pattern formation in the *Drosophila* leg; EGF receptor and mammalian development; Transcriptional silencing of homeotic genes; Endosperm development; Imprinted domains in the mammalian genome; *Drosophila* neurogenesis.



(Zebrafish early embryo: photograph courtesy of Lilianna Solnica-Kretzel)

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