

2001 (#41, 42, 43)**Spring Symposium Meeting****University of Sussex****'Cell & Tissue Morphogenesis'****3-6th April, 2001****Joint Meeting with BSCB**

This meeting is being organised jointly by **Andy Furley** and **David Wilkinson** for the BSDB and **Charles ffrench-Constant, David Garrod & Alan Hall** for the BSCB. It will be held at the **University of Sussex, Brighton** on **3-6 April 2001**.

The meeting will consider the role of adhesion in cell and tissue morphogenesis.

Confirmed speakers include:

Konrad Basler
Nick Brown
David Colman
Elisabetta Dejana
Mark Ginsberg
Dan Kiehart
Mark Krasnow
Masatoshi Takeichi
David Wilkinson

Gary Borisy
Peter Bryant
Shoukat Dedhar
Filippo Giancotti
Jeff Hardin
Eli Knust
Elior Peles
David Van Vactor

**BSDB/BSCB Joint Spring
Meeting 2001****Cell & Tissue
Morphogenesis****Sussex, 3rd - 6th April**

The **Programme** & details of the meeting
appear on **pages 6 & 7**. Registration and
Abstract Submission are **online**:

www.meetings-secretariat.com/

**Registration and Abstract Deadline
16th February 2001**



Spring Meeting 2001 Cell & Tissue Morphogenesis

BSCB/BSDB Joint Spring Meeting, April, 3rd-6th, 2001

Cell & Tissue Morphogenesis

University of Sussex, Brighton, UK

Organisers: Charles ffrench-Constant, Andy Furley, David Garrod,
Alan Hall & David Wilkinson

Wednesday, 4th April

Session 1:

E Dejana (Milan)

T Uemura (Kyoto)

P Bryant (Irvine)

Selected Abstract

E Peles (Rehovot)

Selected Abstract

E. Knust (Dusseldorf)

B Gumbiner (New York)

Junctions

Intercellular junctions in endothelial cells and their role in modulating cell growth and apoptosis

Control of single-cell patterning by the seven-pass transmembrane cadherin

Organizers of signaling pathways at cell junctions

To be announced

Cellular junctions of myelinated nerves

To be announced

Protein scaffolds and cell polarity in *Drosophila*

Cadherin regulation in tissue morphogenesis

Chair: David Garrod

Lunch/Posters

Session 2

D Wilkinson (London)

K Basler (Zurich)

M Krasnow (Stanford)

A Chisholm (Santa Cruz)

J Hardin (Madison)

Morphogenesis

Control of cell movement during hindbrain patterning

Genetic control of cell segregation at compartment boundaries

Oxygen response pathways and airway branching in *Drosophila*

Cell signalling in *C. elegans* neural and epidermal morphogenesis

Regulation of epithelial cell migration and adhesion in *C. elegans*

Chair: David Wilkinson

BSCB Hooke Medal Lecture

Reception/Posters/Dinner

Thursday, 5th April

Session 3:

N Brown (Cambridge)

D Van Vactor (Harvard)

G Rougon (Marseille)

Selected Abstract

L Zipursky (LA)

Selected Abstract

Y Jin (Santa Cruz)

D Colman (New York)

Migration & Connection

Chair: Andrew Furley

Genetic dissection of integrin functions in morphogenesis

Mechanisms that Control Axon Guidance in the *Drosophila* Embryo

Cross-talk between IgCAM and semaphorin signalling in the formation and plasticity of neuronal networks

To be announced

Molecular Genetic Dissection of Axon Guidance and Targeting in *Drosophila*

To be announced

A genetic study of synaptogenesis in *C. elegans* neuromuscular junctions

The Synaptic Junction in the CNS: Evolution, Architecture and Plasticity of an Adhesive Device

Lunch/posters

Session 4:

P Martin (London)

Selected Abstract

G Borisy (Madison)

Selected Abstract

D Kiehart (Duke)

A Hall (London)

Cytoskeleton

Chair: Charles ffrench-Constant

Epithelial sealing in morphogenesis and repair

To be announced

Actin machinery for cell protrusion

To be announced

A molecular and genetic analysis of morphogenesis: how does an embryo close a hole

The control of cell migration by Rho GTPases

BSDB Waddington Medal Lecture

*BSCB and BSDB Annual General Meetings
Conference Dinner*

Continued over

Friday, 6th April

Session 5:

M Peifer (Chapel Hill)

A Harwood (London)

M Ginsberg (La Jolla)

F Giancotti (New York)

F Watt (London)

S Dedhar (Vancouver)

R Hynes (MIT)

Signalling

Cell adhesion, signal transduction and cancer: the Armadillo connection

Intercellular junctions and cell signalling in Dictyostelium

The inside story on integrins

To be announced

Role of cell adhesion in regulating epidermal stem cell fate

Integrin Linked Kinase(ILK) mediated regulation of Epithelial-mesenchymal transformation.

Cell Adhesion in Cancer

Chair: Alan Hall

Special Session 6: Public Awareness of Developmental Biology

A chance for pupils from local schools to hear selected speakers from the meeting present their work.

Workshops

Wednesday, 3rd April (Concurrent with Sessions 1 & 2)

I: "Regulation of Cell Motility" Chair: Laura Machesky

Dave Knecht (Storrs)

Frank Gertler (MIT)

Sutherland Maciver (Edinburgh)

Cornelis Weijer (Dundee)

Harry Mellor (Bristol)

Britta Qualmann (Magdeburg)

Meeting Website

<http://www.meetings-secretariat.com/>

Live from 1st December, 2000

Thursday, 4th April

(Concurrent with Sessions 3 & 4)

II: "Biogenesis of Post-Golgi Organelles in Health and Disease"

Chair: Dan Cutler

Reg Kelly (UCSF)

Juan Bonifacino (Bethesda)

Scottie Robinson (Cambridge)

Gillian Griffiths (Oxford)

Sharon Tooze (London)

**Abstract and Registration deadline:
16 February 2001**

BSDB/BSCB Spring Meeting on Cell & Tissue Morphogenesis

This year's Spring Meeting (Sussex, 3rd-6th April), full of exciting experimental results, was an experiment in itself. This year we broke with our usual tradition of running separate and parallel BSDB and BSCB programmes and instead joined forces to run one single high-quality programme on Cell and Tissue Morphogenesis. The advantages of this were that we would have enough money to produce a really excellent list of international speakers while keeping the registration costs down, and people would not be faced with having to choose between rival sessions. To give credit where credit is due, the original idea for this came from BSCB. (We were therefore particularly surprised by a last minute revolt by some members of BSCB who, feeling hijacked by developmental biologists, quickly organized parallel "workshops" of their own on motors and on post-golgi organelles! Never mind – the main programme still got its star speakers, and the price for the meeting was still held much lower than it had been in the previous year). In terms of attendance, the meeting was definitely a success – we were in the embarrassing position of having to turn people away (though everybody who applied before the deadline was accepted). As usual, the BSDB was able to fund most student delegates through the generosity of its grant from the Company of Biologists.

The science of the meeting began strongly with a session on cell junctions. When they first appeared in meetings, cell junctions were seen as entities with essentially one function – adhesion. This aspect is still very important, and we were presented with some very elegant data on the mechanisms of cadherin binding, and the surprising lack of specificity shown by different cadherin types when allowed to bind heterotypically *in vitro*. We were also treated to some striking demonstrations of how proteins control the biogenesis and placement of junctions, and how dramatically mutant flies devoid of such proteins are affected. Nowadays, though, cell junctions are also understood to be signalling centres, and this aspect was emphasised by several speakers working on systems as diverse as insect cells, vertebrate endothelia and myelinated nerve. Next came a session on morphogenesis itself. This was dominated, as is so much of developmental cell biology nowadays, by genetic studies in *D. melanogaster* and *C. elegans*. The behaviour of epithelial sheets and tubes was the focus of several talks, which covered the genetic control of epithelial branching in insect airways, and in epiboly, gastrulation and closure in nematodes. *Drosophila* molecular genetics provided the background to a discussion of the mechanisms used to set up boundaries across epithelial tissue, while the vertebrate phylum was represented by zebrafish and the control of notochord development by ephrins, molecules that also turned up in *C. elegans* epiboly.

The second day began with a session on mechanisms and control of cell migration. Again, talks ranged from very cell-biological examination of the molecules required to support integrin-mediated adhesion, to systems more obviously in

the province of developmental biology. Chief amongst these was development of the nervous system, and between them speakers covered aspects of axon migration and guidance to their targets, and the formation of synapses between those axons and both neuronal and muscular cells. Next came The Afternoon of the Time Lapse Video, as the programme turned to the cytoskeleton. Biochemical and genetic elegance was still present of course, but the most memorable moments for most of us in the audience were the series of beautiful time-lapse images of healing wounds, dorsal closure in *Drosophila* embryos, and fish keratinocytes racing across culture dishes. There is nothing like a time-lapse video to remind us, at the end of a mind-stretching day, that the subject of all of the detailed investigations is *life*!

As if following musical tradition, the conference ended with a variation on its initial theme of cell junctions as signalling centres. The role of cadherin-centred junctions, with their associated henchmen of catenins, in controlling cell behaviour was demonstrated in slime molds and flies; again, the mutants are dramatic. Integrin-containing junctions, with their signalling links through integrin-linked kinase etc, were shown to play major roles in regulating epidermal cell fates, cell proliferation and even the basic choice of whether a cell will be epithelial or mesenchymal, a choice that seems to be becoming increasingly fluid as the years go by. The meeting ended with a timely illustration of the utility of genomic approaches to cell adhesion in the Cancer Research Campaign-sponsored talk by Richard Hynes (MIT).

As well as having excellent science in its main session, this meeting was blessed with an interesting (if cramped) poster session, made all the more exciting by a Wellcome-sponsored image competition (we all had our favourites! See *centre pages*, Ed.). It will also be remembered for the excellent talk given by Mike Bate, after he accepted the BSDB's Waddington Medal. I hope it won't be remembered for the Conference Dinner at the Old Ship Hotel (if you are finding it hard to forget the food, there are probably therapists who can help you) – but at least the atmosphere was good. The meeting will also probably be remembered for The Great PowerPoint Projector Disaster of 2001; I shall still bring back-up slides for a few years yet, I think!

So... it was a good meeting, well attended and very interesting. The scientific organizers deserve a very hearty "thank-you". Did the experiment work? Probably. Will we do it again soon? Well, for the next Spring meeting, we have another joint programme, this time with the Genetical Society, so we can see if our results are reproducible (always a mistake...). After that, BSDB Spring meetings will change to become less focussed on a single theme and of more general interest, and it will be harder to join with BSCB for a single programme. But that's another experiment, for another day...

Jamie Davies, Edinburgh

Autumn Meeting

Magdalen College, Oxford

'Boundaries in Development'

20-21st September, 2001

BSDB

This meeting is being organised by **Marcel Van Den Heuvel**.
Further details in the next Newsletter.

BSDB Autumn Meeting 2001

Boundaries in Development

Oxford, 19th – 21st September

The **Programme** & details of the meeting
appear on **pages 6 & 7**. Registration and
Abstract Submission are **online**:

[www.anat.ox.ac.uk/mrc-
fgu/autumnBSDB2001.html](http://www.anat.ox.ac.uk/mrc-fgu/autumnBSDB2001.html)

**Registration and Abstract Deadline
15th August, 2001**

Autumn Meeting

Magdalen College, Oxford

Boundaries in Development

19th-21st September, 2001*Organiser: Marcel van den Heuvel*

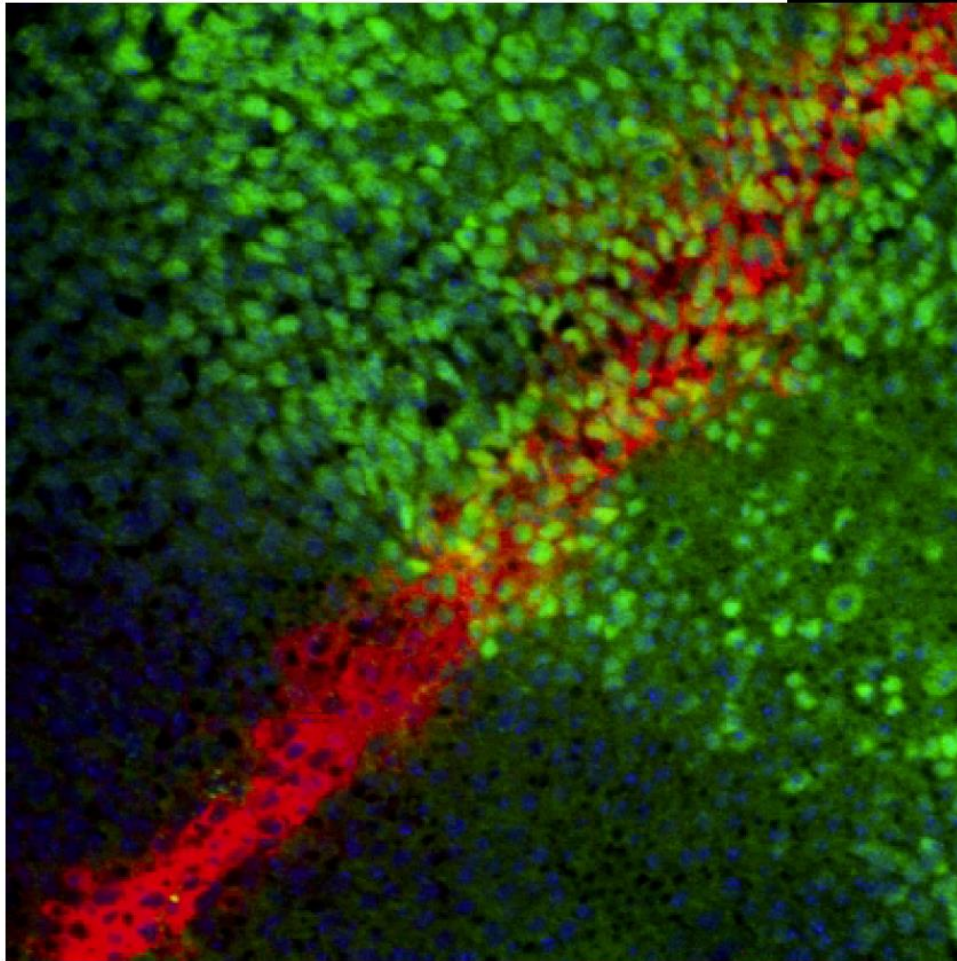
The meeting is intended to give the participants an overview of the work on the existence and roles of boundaries in development. We will consider both the traditional view of boundaries existing between groups of cells (ie segmental or clonal divisions), and the possibility that such boundaries exist within single cells. Sessions thus float to represent various model systems as well as discuss the latest developments in the genetic and molecular analysis of characterised boundaries.

More information will be available soon on the following [www address](http://anat.ox.ac.uk/MRCFGU/MvdH/autumnBSDB2001) <http://anat.ox.ac.uk/MRCFGU/MvdH/autumnBSDB2001> and in the Spring Newsletter.

Invited and confirmed speakers include:

Alex Joyner (Skirball, NY)
Antonio Garcia-Bellido (Madrid)
David Wilkinson (London)
Jean-Paul Vincent (London)
Julie Ahringer (Cambridge)
Andrea Wizenmann (Wuerzburg)

Ken Irvine (Rutgers, NJ)
Paul Nurse (London)
Steve Cohen (EMBL)
Steve Wilson (London)
Gerd Juergens (Tuebingen)



Autumn Meeting **2001**
Boundaries in Development

BSDB Autumn Meeting, September, 19th-21st, 2001
Boundaries in Development
 Magdalen College, Oxford, UK

Organiser: **Marcel van den Heuvel**

Programme

September 19th (afternoon)

Chair: **Jenny Brown**

Opening lecture (speaker to be announced)

Steve Cohen (EMBL):

"Boundary formation in Drosophila wing development"

Julie Ahringer (Cambridge):

"Genome wide RNAi screening and its use in studying C. elegans embryonic polarity"

Olivier Pourquié (Marseille):

"Role of FGF signalling and of the segmentation clock in somite boundary formation"

Dinner/Posters

September 20th

Chair: **Alison Woollard**

Antonio Garcia-Bellido (Madrid):

"The history of clonal boundaries"

Jean-Paul Vincent (London):

"Boundaries in the embryonic epidermis of Drosophila"

Selected Abstract

Andrea Wizenmann (Würzburg):

"Beyond gene expression patterns: Cells and axons encountering the mid hindbrain boundary"

Lunch

Chair: **Ruth Arkell**

Ken Irvine (Piscataway):

"Modulation of Notch signalling by the glycosyltransferase Fringe"

Steve Wilson (London):

"Roles for boundaries and organiser tissue in patterning the zebrafish neural plate and mesoderm"

Alex Joyner (New York):

"Setting up an organizing centre at the mid/hindbrain junction"

Selected Abstract

Conference banquet

September 21st (morning)

Chair: **Zoltan Molnar**

Gerd Jürgens (Tübingen):

"Origin of the root meristem in Arabidopsis early embryogenesis"

David Wilkinson (London):

"Roles of Eph receptors and ephrins in boundary formation"

Paul Nurse (London):

"Controlling cell shape in fission yeast"

Abstract and Registration Deadline
15th August, 2001

For the latest details see meeting website:
<http://www.anat.ox.ac.uk/mrc-fgu/autumnbsdb2001.html>

BSDB Autumn Meeting (continued)

General information:

Dates: Arrive afternoon of 19th of September, lunch optional. Depart afternoon of 21st of September, lunch optional.

Site: The conference will be held at Magdalen College, Oxford. Details on how to get to Oxford and to Magdalen College will be posted on the Meeting website. PLEASE NOTE, parking in Oxford is NOT possible.

All lodging and the seminars will be within the grounds of Magdalen College

<http://www.magd.ox.ac.uk>

Registration: On-line registration will be available from mid June through the conference website. This website will also include abstract submission options. The number of registrants (with accommodation) is limited to 100, if the Meeting is oversubscribed, priority will be given to those who present posters. The **deadline for registration is August 15th**; those registering after this deadline will be subject to a late registration penalty of £30.

Posters and abstracts: A poster session will take place in the evening of the 19th of September. Two abstracts will be selected from submitted material for oral presentation; authors wishing to be considered for oral presentation, should indicate their intention to do so. **Abstracts should be submitted by August 15th.**

Meeting charges: The fee for residents covers registration, accommodation and all meals ex-

cluding the conference banquet (four course dinner with wines in Magdalen College Halls). The fee for non-residents covers admission to seminars, teas, and coffees on all days and lunch on the 20th of September.

Charges (for more details see website):

2 nights full member £155.00

2 nights student member £115.00

For non-members add £30.00 to fees

Conference Banquet, add £40.00 to fee

Late booking fee (after 15/08) add £30.00

Non-residents £50.00

Travel grants: remember that BSDB travel grants are available to cover basic travel and conference expenses. For further details, see page 4 of this Newsletter.

Further details on the Meeting, registration on-line and abstract submission on-line can all be found at:

www.anat.ox.ac.uk/mrc-fgu/autumnbsdb2001.html

For queries, please contact:

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