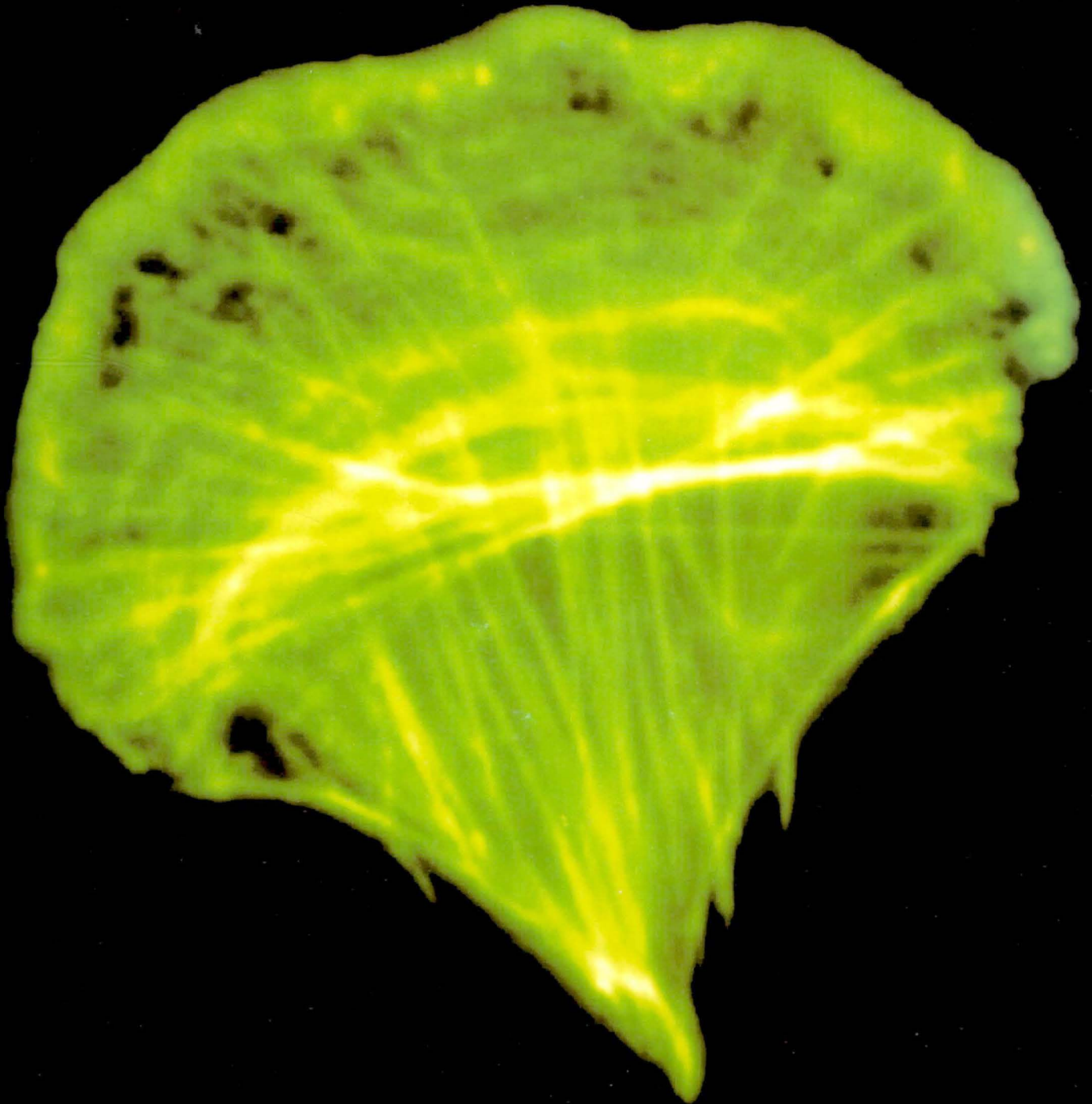


BSCB **newsletter**

Summer 1997



British Society for Cell Biology

BSCB Newsletter

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The cover photograph: Graded polarity actin bundles in a fixed, locomoting chick heart fibroblast stained with fluorescein-phalloidin. See Cramer *et al.* 1997, *J Cell Biol* **136**:1287-1305 for details.
Louise Cramer, The Randall Institute, Kings College London, 26-29 Drury Lane, London WC2B 5RL.

This newsletter was compiled by Theo Bloom and printed by Cambridge University Printing Services.

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British Society for Cell Biology

Committee members 1997

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British Society for Cell Biology and Journal of Cell Science

Announcement of

Six bursaries for young scientists

from Bulgaria, Commonwealth of Independent States, Czech Republic, Slovakia, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and the former states of Yugoslavia to attend

The BSCB/BSDB Joint Spring Meeting at Lancaster, 1-3 April 1998

Bursaries will cover the cost of registration, accommodation and meals, and in 1997 a travel award of up to £250 per person. Applications, in duplicate, including a brief CV and concise reasons for wishing to attend should be sent to: Birgit Lane, CRC Laboratories, Department of Anatomy and Physiology, Medical Sciences Institute, University of Dundee, Dundee DH1 4HN.

BSCB members — if you know of any young scientists from central and eastern Europe who would benefit from attending this meeting, please send them the above information.

Development Genes and Evolution



Editor-in Chief: Diethard Tautz

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Development Genes and Evolution

ISSN 0949-944X Title No. 427

Subscription information for 1997:

Volume 207 (8 issues): DM 998,-*

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Personal subscription rate available.



Springer

Implications of the Human Genome Project for the 21st Century

An informal report of the lecture supported by the BSCB at the Association for Science Education's Annual Meeting, Friday 3rd January 1997 at the University of Birmingham.

David Archer, Association for Science Education, 194 Silverdale Road, Earley, Reading, Berks RG6 7NB

Following a tradition started by Martin Raff last year [see Summer 1996 Newsletter], Kay Davies gave this year's lecture. She arrived from Oxford by train. The third of January was a cold dreary day with snow and ice. At 4.15 pm there was no one in the theatre and the entrance lobby lights had failed. (Is no one interested in cell biology?). From 4.20pm people started arriving. They were welcomed and given a copy of the leaflet which they read whilst waiting. By 4.35pm, 83 people had arrived.

The lecture was prefaced by a statement, approved by BSCB President Ron Laskey, that the lecture will be a regular annual feature and that it is hoped that each year that BSCB will present a topic from research in cell biology which will probably have a major influence in biology or which will cause a re-think or re-examination of established ideas. Kay Davies was then introduced.

The information Kay gave was new to many, as were her slides. For many of the delegates her slide of 'painted' chromosomes was quite stunning and presented a new technique to them. About a third of the way through the talk, the projector failed. Kay answered questions. The lecture and slides then resumed. No one left the lecture until the very

end. At the end, Kay answered more questions which she said were of high quality.

Friday, the middle day of the Annual Meeting, has the highest delegate attendance. Those attending lecture seemed to like being welcomed to the lecture theatre and given a leaflet as they arrived. Most of them used the time before the lecture to read the leaflet. This was good because the leaflet was not just added to their pile of leaflets and catalogues. I also noticed that quite few people used the 'white space' on the leaflet to make their own notes. This was not planned but means that leaflet and personal notes are kept together and that possibility of leaflet retention is greater since delegates have 'personalised' them. Some BSCB leaflets on apoptosis from last year were also eagerly picked up.

The Association for Science Education is the umbrella organization for science teachers in secondary schools; a review of its work appeared in the Summer 1996 BSCB Newsletter. A copy of the leaflet 'Implications of the Human Genome Project for the 21st Century, written by Kay Davies and distributed on behalf of the BSCB at the ASE conference, is on the next two pages (the leaflet is designed to be copied onto both sides of an A4 sheet and folded along its long axis).

If you have something to contribute to the next issue of the BSCB Newsletter, please send it to: Louise Cramer, The Randall Institute, King's College London, 26-29 Drury Lane, London WC2B 5 RL; fax, 0171- 497 9078; e-mail louise.cramer@kcl.ac.uk **by 15 October 1997.**

Further reading.

Scientific American, March 1996, *Trends in Human Genetics* (by Tim Beardsley).

Current Opinion in Genetics and Development, June 1996, *Genetics of Disease* (edited by Ron Laskey and Matthew P. Scott and published by Current Biology Ltd in London, this journal issue contains review articles on various aspects of disease genetics).

U.S. National Center for Genome Research World Wide Web Site: <http://www.nchgr.nih.gov/> (this internet site includes details of the human genome project and an extensive bibliography).

The photograph on the front shows a complete set of human metaphase chromosomes, along with an interphase nucleus at the top left.

BRITISH SOCIETY FOR CELL BIOLOGY

Dispatches from the Frontiers of Cell Biology

Genetics in the 21st Century**Contents:**

- Introduction
- Definitions
- Finding disease genes
- New techniques
- Social implications

Keywords: Chromosomes, Genes, Genetic disease, Ethics

**BRITISH SOCIETY FOR CELL BIOLOGY**

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Introduction

Progress in the isolation of genes will revolutionise our understanding of human disease. Early next century, we will know the sequence of the whole human genome. This will provide the tools for genetic screening for predisposition to diseases such as diabetes, cancer and asthma.

Definitions

Genome: the complete set of genes for an organism.

Single-gene disorders result from a mutation — a mistake in the DNA sequence — of a single gene. A person usually has to inherit a mutated copy of the gene from each parent in order to manifest the disease. The parents, who usually have no signs of ill-health, are said to be *carriers*. Frequently, inheritance of the mutation leads to a predisposition to the disease, rather than an absolute certainty of disease development.

Multigene disorders, such as heart disease, cancer and Alzheimer's disease, may be caused by a combination of mutations in more than one gene and environmental influences.

Finding disease genes

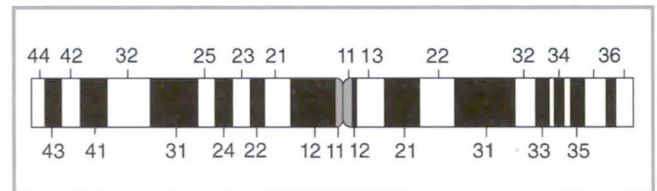
The first human gene, encoding the blood protein β globin, was cloned in 1972. This gene is mutated in thalassemia, for which there was until then no easy prenatal test nor any treatment. By 1979, the first prenatal diagnosis of the disease using a DNA-based method was possible. This success was soon followed by the isolation of the genes defective in other single-gene disorders, such as Duchenne muscular dystrophy and Huntington's disease.

New techniques

In the mid-1980s, the development of the polymerase chain reaction, a method for specifically producing millions of copies of a single DNA sequence, led to the development of faster and more reproducible tests. Now prenatal tests can be done within 24 hours, instead of two weeks.

The analysis of chromosomes using the light microscope has also advanced rapidly. It is now

possible to recognise the different chromosomes with dyes that allow 'bar coding' of an individual chromosome set. Even very small chromosomal changes, which are involved in disorders such as mental handicap, can be seen.



A schematic representation of the bands visible on human chromosome 1.

Prenatal diagnosis and carrier screening for single-gene disorders is now common around the world. Such screening can be beneficial for families affected by a genetic disease, by identifying which family members carry the 'faulty' gene. Screening has also helped some ethnic groups who have higher susceptibility to particular diseases. For example, Tay Sachs disease, a disorder involving severe mental handicap, has now been virtually eradicated from the Ashkenazi Jewish population most affected by it.

Social implications

Many social, ethical, legal and economic issues are raised by genetic screening. For example:

- in China, couples have to undergo premarital tests for genetic diseases and only receive a certificate to enable them to marry if there is no evidence of serious genetic disease. If both are found to carry a disease, they may marry only if they agree to long-term contraception.
- In rare cases, mutations in single genes may be responsible for certain personality traits, such as aggression; society will have to decide whether having the 'wrong' genes provides an acceptable defence in a court of law.
- Screening the whole population for genetic diseases would stigmatise carriers. Insurance companies may insist on a battery of genetic tests before providing cover.

Regulation of cell adhesion

*A report on the European Tissue Culture Society (UK)
Workshop held at University College, London on 19 April 1996*

Josephine Adams, MRC Laboratory for Molecular Biology, University College London,
Gower Street, London WC1E 6BT.

A workshop on the topic of "Regulation of Cell Adhesion" was held at UCL on 19th April, 1996, under the auspices of the European Tissue Culture Society, UK branch. The BSCB provided sponsorship for the keynote speaker, Professor Friedrich Bonhoeffer. The programme was designed to explore recent developments in our understanding of molecular and mechanical factors which regulate cell adhesion.

The morning was devoted to integrin-mediated interactions and included talks by Martin Humphries, Charles French-Constant, Angus McGrouther, Jill Bishop, Neil Hotchin and David Simmons, covering aspects of integrin-ligand interactions, integrin signalling and the role of mechanical force in cell behaviour. The afternoon examined guidance and "anti-adhesion" molecules, with talks by Arthur Lander, Roger Keynes, Matthias Chiquet and Jo Adams. In his talk, Professor Bonhoeffer reviewed his elegant growth cone collapse and stripe axon guidance assays and described how 2D gel analysis was used to isolate and purify an axon guidance molecule with repulsive activity, RAGS. This molecule is related to ligands of the Eph receptor tyrosine kinases and it now appears that other receptors and ligands within this large family are involved in various axon guidance events.

Some themes which emerged during the day were over-lapping interests in perturbation of integrin-mediated interactions by "anti-adhesion" molecules and in the influence of mechanical force on extracellular matrix gene expression and cell behaviour. Whilst it appears that guidance and "anti-adhesion" molecules exert their effects through distinct mechanisms, there was commonality of

interest in the design of *in vitro* assays, identification of cellular receptors and the mechanisms by which these molecules initiate signals which impinge on cytoskeletal organisation and function.

The meeting was over-subscribed and drew a capacity audience of over 170 to the Gustave Tuck lecture theatre at UCL. The formal programme was complemented by posters, trade exhibition and refreshments, which took place throughout the day in South Cloisters. The registrants were drawn from both academia and biotechnology companies. 27 % of the registrants were students. My thanks go to the speakers, to the BSCB and other sponsors, to all those who helped with various aspects of organising the meeting and to ETCS (UK) for a carte blanche opportunity.

BSCB One-Day Meetings

The BSCB can help in organizing small one-day colloquia on specific cell-biological topics, by providing travel funds for one keynote speaker, usually from abroad, who will form a focus of the meeting. A number of successful small groups of 20–50 people have been supported in this way, with space, facilities and incidental expenses provided by the host institute.

To apply: BSCB members who wish to hold such a meeting should write to the Meetings Secretary (see page 2). Include a tentative program, the name of the speaker to be invited and the approximate cost of travel (maximum £1,000). Note that the BSCB will not, under this scheme, sponsor meetings that have already received funds from other sources. **Applications from young investigators are especially welcome.** Applications are discussed biannually, usually in spring and autumn, and funds can be made available very soon afterwards.

Molecular mechanisms of cell locomotion

A report on the 11th Harden Discussion Meeting held in conjunction with the BSCB, 21-23 September 1996 at Wye College, Kent.

Murray Stewart, MRC Laboratory of Molecular Biology, Hills Road, Cambridge CB2 2QH.

This meeting aimed to bring together a small group of workers for an intensive three-day meeting focused on the molecular mechanism of cell motility. The conference was designed to maximise the chance of people in the field mixing and exchanging ideas and information, as well as enabling younger workers to get to know some of the more established workers in the field. There were 43 participants drawn from Britain, Germany, France, Switzerland, Austria and the US. In addition to the series of invited presentations, all participants were encouraged to present posters and there was also the opportunity for all poster presenters to make a brief (10–15 minute) platform presentation of their work. The generous funding received from both the Harden Committee and the British Society for Cell Biology was crucial to the success of the meeting and allowed a set of excellent speakers chosen from both Europe and the US. Moreover, the format of holding the meeting over a weekend enabled a large number of senior Continental workers to attend. Judging from the informal comments received from many of the participants, the meeting was able to effectively stimulate discussion and introducing postgraduate and postdoctoral workers to more senior workers in the field.

All invited major speakers were from overseas and gave talks of 30 minutes plus 10 minutes for discussion. In addition, a number of mainly British speakers (mainly postdocs) were approached to give 15-minute talks to supplement each session. This seemed to produce a good balance and, moreover,

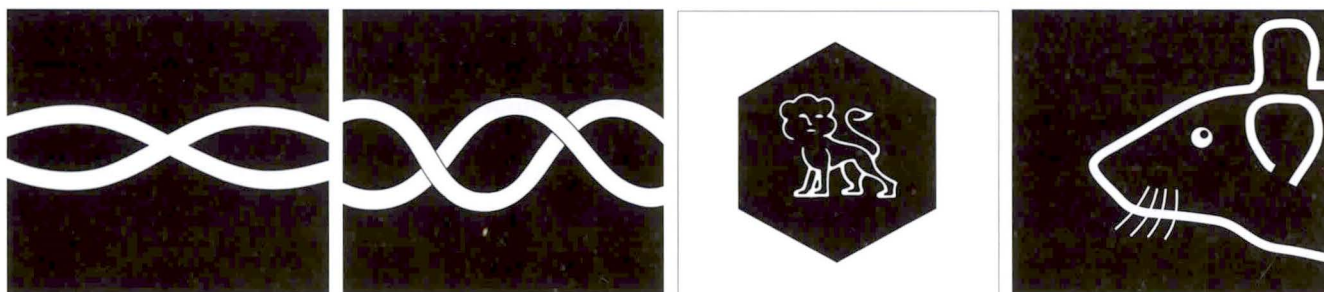
enabled a lot of the presentations to be focused on the most recent developments. Talks were focused on four related areas: the overall structure of the cytoskeleton; the use of unusual systems to study motility; the control of motility; and the physical basis for force generation. A quite unanticipated unifying role of Rho-related small GTPases emerged through the meeting and served to link many of the talks from different sections.

The conference began with a series of presentations related to the structure of the components of the cytoskeleton that are related to locomotion. John Hartwig (Brigham & Women's Hospital, Boston) discussed the platelet cytoskeleton and its modulation, especially by Rho-like GTPases and PI kinases, during activation. Ueli Aebi (Maurice E Mueller Institute, Basel) complemented these whole cell studies with high resolution structural information on the actin filament and its interaction with phalloidin. Steve Almo (Albert Einstein College of Medicine, New York) then discussed new high resolution X-ray diffraction data obtained on a range of actin-binding proteins, including profilin and vinculin, and the relationship between their structure and binding specificity.

Michael Schleicher (University of Munich) discussed actin binding proteins and their regulators and was followed by Paola Fucini (Max-Planck-Institute of Biochemistry, Martinsried) who presented the newly-determined NMR structure of the repeating domain of the *Dictyostelium* gelation

factor rod domain, which has a distinctive immunoglobulin fold. Amy McGough (Baylor College of Medicine, Houston) complemented this work with a powerful combination of electron microscopy and diffraction to establish the different binding geometries of a range of different actin-binding proteins. Marie-France Carlier (Gif-sur-Yvette) then discussed the role of cofilin/ADF and how it was able to enhance actin dynamics. This work had important implications for actin-based motility, especially in *Listeria*-based systems. Guy Tran Van Nhieu (Pasteur Institute, Paris) then discussed the modulation of the actin cytoskeleton during *Shigella* entry into cells and was followed by Brigitte Jockusch (University of Braunschweig) who discussed protein interactions relevant to the organisation of actin at membranes, especially the role of proteins such as VASP and profilin in *Listeria* motility. Nick Brindle (University of Leicester) then described how VASP bound to proline-rich regions of vinculin at focal adhesions and Michael Way (EMBL, Heidelberg) discussed how host and vaccinia virus proteins can induce actin tails that resemble those seen with *Listeria*.

Tom Roberts (Florida State University, Tallahassee) introduced a novel motility system based on amoeboid sperm cells from *Ascaris* that are able to crawl like other amoeboid cells and which have no actin, tubulin or myosin. Instead their locomotion appears to be based on the polymerization and bundling of their major sperm protein. Angelika Noegel (Max-Planck-Institute of Biochemistry, Martinsried) then returned to the actin world in a masterful demonstration of the power of molecular genetics to dissect the roles of different components in *Dictyostelium* motility. Robert Insall (MRC Laboratory of Molecular Cell Biology, London) then expanded on this theme to show how chemotaxis and cytokinesis in *Dictyostelium* were controlled by Ras-family GTPases. John Collard (Netherlands Cancer Institute, Amsterdam) continued on this theme and explored the role of Rho-like GTPases and their activators in tumor formation and the invasive motile behaviour of cells. Laura Machesky (MRC Laboratory of Molecular Cell Biology, London) examined the role of Rho-like GTPases in actin dynamics and William Allen (Kings College London) described how Cdc42, Rac and Rho induced changes in the actin cytoskeleton of



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macrophages. The GTPase section was then completed by Jim Norman (University of Leicester) who used streptolysin-O permeabilized fibroblasts to study focal adhesion and stress fibre assembly.

George Oster (University of California, Berkeley) introduced the audience to the biophysics of cell locomotion and examined the role of thermal ratchets and actin flexing in membrane protrusion. Vic Small (Austrian Academy of Sciences, Salzburg) gave an overview of the functional basis of cell motility and the different roles of filament assembly, bundling and treadmilling. Finally, Julie Theriot (MIT, Boston) showed how powerful cellular

pathogens such as *Listeria* could be in defining the roles of different components in cell motility and the insights such a system could give into the fundamental physical processes underlying movement.

Finally I would very much like to express my appreciation to Robert Day and the staff of Wye for all their assistance in organising the meeting and to the Harden Committee and the British Society for Cell Biology for the financial support that was vital for underpinning the meeting. Many of the US participants were astonished by the high standard of the meeting and viewed small focused meeting of this type extremely positively.

Life, the universe, and San Francisco

The 36th Annual ASCB Meeting in San Francisco was attended by the winner of last year's BSCB Young Cell Biologist of the Year Poster Competition

Christiana Ruhrberg, Keratinocyte Laboratory, Imperial Cancer Research Fund, Lincoln's Inn Fields, London WC2A 3PX.

In December last year, the BCSB provided me with the opportunity to present my work on a new keratinocyte protein, envoplakin, at the annual meeting of the American Society for Cell Biology in San Francisco. I had never been to a meeting so big and diverse before and was impressed by the quality of the presentations and how well everything was organised.

The meeting not only provided me with an excellent opportunity to investigate possibilities for post-doctoral positions, I also had a chance to see my supervisor, Fiona Watt, give a presentation in the plenary symposium on adhesion and signalling, where she spoke about the role of cell adhesion in regulating keratinocyte growth and differentiation. I enjoyed both the talks and the poster presentations, and realised just how much progress has been made in areas related to my own research. Even more exciting, however, was that I

could learn a lot about subjects I do not normally take enough time to read up on. Some of my personal favourites were Don Ingber's talk on the control of cell shape, Susan McConnell's talk on asymmetric divisions and cell fate in the developing mammalian brain, and, particularly, Richard Dawkins's keynote address, a philosophical treatise on "life, the universe and everything".

My visit to San Francisco was not only a great scientific experience. The get-together reception was held in the Exploratorium, an interactive museum where I had lots of fun eating, drinking and subjecting myself to optical illusions and memory tests. I loved Chinatown with its excellent restaurants, and during my entire stay the weather was beautiful: warm and sunny, with amazing views over the Pacific Ocean. It was hard to believe that San Francisco is rainier than London! Many thanks to the BSCB for this exciting week in San Francisco!

Forthcoming meetings

Further details of BSCB meetings are on the centre pages of this newsletter.

6–8 July 1997

CYTO / CRYO / FLOW 97 Joint Exhibition
The Royal Microscopical Society in
association with *Microscopy and Analysis*
International microscope conference and
exhibition

Exhibition Centre (Department of Physics),
University of York

CYTO 97 – The Application of the Microscope in
Life Sciences, with a theme of Cells and
Signalling, and incorporating mechanisms of
infection, inflammation and immunity.

CRYO 97 — Low Temperature Microscopy and
Analysis

FLOW 97 — A one-day meeting on Tuesday 8 July
catering for both clinical and research aspects of
flow cytometry.

Further details from:

Royal Microscopical Society,
37/38 St. Clements,
Oxford OX4 1AJ
Tel: 01865 248768. Fax: 01865 791237
E-mail: meetings@rms.org.uk
Web site: <http://www.rms.org.uk/>

11 July 1997

European Tissue Culture Society Workshop
Cellular Senescence
Dundee

Further details and registration forms from:
Dr Ian Kill
Department of Biological Sciences
University of Dundee
Dundee DD1 4HN.

E-mail: dmcbjca@ucl.ac.uk

Web site: <http://www.dundee.ac.uk/~irkill/etcs>

12–17 July 1997

Fifth International Congress of Vertebrate
Morphology
University of Bristol

Further details from:

Professor JMV Rayner
School of Biological Sciences
University of Bristol
Woodland Road
Bristol BS8 1UG.

Fax: 0117 925 7374

E-mail: ICVM97@bristol.ac.uk

Web site: <http://www.bio.bris.ac.uk/icvm.html>

14–16 September 1997

Molecular basis of Cell and Tissue Organisation
theoretical and experimental approaches
University of Manchester

Cytoskeleton

Adhesion, signalling, cell organisation

Extracellular Matrix

Wound healing, tumour growth

Further details:

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Web site:

<http://mbisg2.sbc.man.ac.uk/bbs97.html>

28 September–1 October 1997
4th Abercrombie Meeting
Cell Behaviour
St Catherine's, Oxford University

Further details and registration forms are on pages 18–19 of this newsletter

8–10 December 1997
UK Molecular Biology and Cancer Network
meeting XIV
University of Warwick

Gene Expression

Genome Integrity

Cancer and Development

Genes and Therapeutics

Further details and application forms from:

Dr Helen Hurst

Fax 0181-383-3258

E-mail: h.hurst@icrf.icnet.uk

Web site:

<http://www.icr.ac.uk/ukmbcn/info.htm>

March 31–April 3 1998
BSCB/BSDB joint meeting
University of Lancaster

Cellular localization (BSCB Symposium)

Developmental pathways (BSDB Symposium)

Optical tools in living cells (BSCB Workshop)

Development of skin (BSDB Workshop)

Further details are on pages 15–16 of this newsletter

Items for the 'Forthcoming meetings' section of the Winter 1997 BSCB Newsletter should be sent by 15 October 1997 to:

Louise Cramer, The Randall Institute,
 King's College London, 26–29 Drury Lane,
 London WC2R 2LS. Fax: 0171497 9078.
 E-mail: louise.cramer@kcl.ac.uk

13–16 September 1998
Epithelial Cell Biology '98
St Catherine's College, Oxford University

Epithelial Cell Biology '98, organised by Paul Edwards (Cambridge) and Charles Streuli (Manchester), will bring together some of the world's most distinguished biologists to discuss such topics as:

epithelial cell fate and morphogenesis
 cell-matrix and cell-cell signalling
 oncogenes and tumour suppressors in
 epithelial carcinogenesis

in a 2½ day meeting.

For further information see the meeting Web page <http://www.path.cam.ac.uk/~pawel/BSCB98.html> where the programme and registration details will be posted later this year.

British Biophysical Society

**MOLECULAR BASIS OF
 CELL AND TISSUE ORGANISATION**
 THEORETICAL AND EXPERIMENTAL APPROACHES

14–16 September 1997, University of Manchester, UK

CYTOSKELETON

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 Allan (Manchester)
 Tabony (Grenoble)

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 Ridley (London)
 Ingber (Boston)

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For more information, contact:

Andy Brass,
 School of Biological Sciences,
 University of Manchester, Oxford Rd,
 Manchester M13 9PL, UK
 Tel: (0161) 275 3006
 FAX: (0161) 275 3082
 e-mail: ab@scg.man.ac.uk

David Hulmes,
 IBCP, 7 passage du Vercors,
 69367 Lyon cedex 7, France
 Tel: (33) (0)4 72 72 26 67
 FAX: (33) (0)4 72 72 26 02
 e-mail: hulmes@ibcp.fr

Or visit the web site at : <http://mbisg2.sbc.man.ac.uk/bbs97.html>

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Transcriptional Regulation in Cell Differentiation and Development

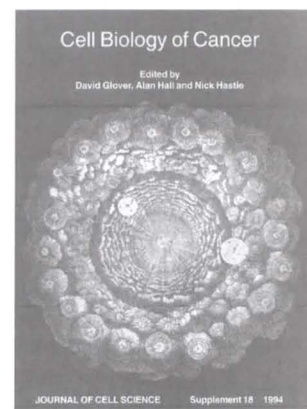
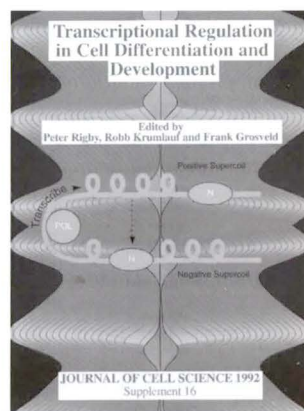
While much remains to be learned about how transcription is regulated during development and in response to extracellular signals, many general principles are now clear and in favourable cases proper regulation can be reconstituted in vitro using pure proteins. This supplement focuses on the regulation of transcription during cell differentiation and development.

Cell Biology of Cancer

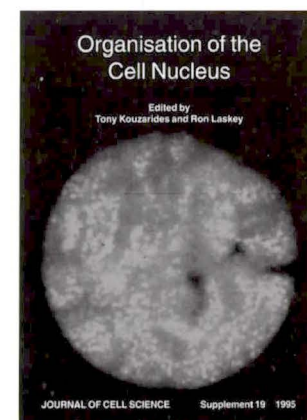
A collection of papers reflecting key areas of cancer cell biology. The book focuses on cancer and the cell cycle and provides a useful snapshot of the field at a particular point in time.

Organisation of the Cell Nucleus

The cell nucleus is a marvel of information management and retrieval. This supplement considers how the cell nucleus functions. In particular it focuses on how the functions of the cell nucleus are precisely regulated.



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BSCB

BSCB/BSDB Spring Meeting

University of Lancaster, 1–3 April 1998

Provisional Outline Programme

BSCB Symposium

Cellular localization: Functional microdomains within cells

Organisers: Michael Whitaker (Newcastle) and Peter Shaw (Norwich)

Overview: The symposium will address the question "What sorts of mechanisms set up regional differences inside plant and animal cells?" Although membrane traffic certainly play a part, this meeting will take a broader view of the mechanisms of cellular localization.

Scientific Sessions

Regional specialization within the nucleus

The nucleus and cell signals

mRNA translocation and localization

Cell polarity

Nuclear pores and their regulation

Protein targetting and recruitment

Lipid dynamics and membrane microdomains

Functional colocalization

Workshop

The related one-day workshop 'Optical tools in living cells' will range in its topics from two photon confocal microscopy to using optical tweezers to microdissect cell components.

BSDB Symposium

Developmental Pathways

Organiser: Paul Sharpe (London)

Wednesday 1 April

09.00 Plenary lecture

10.00 Matthew Scott

10.30 Henry Kronenberg

11.00-11.30 - Coffee

BSCB/BSDB Spring Meeting

University of Lancaster, 1–3 April 1998

Provisional Outline Programme

BSDB Symposium

Developmental Pathways

Organiser: Paul Sharpe (London)

11.30	TBA	12.30	Vicky Rosen
12.00	Hans Clevers	12.30-2.30	- Lunch
12.30	Patrick Lemaire	2.30	Konrad Basler
1.00-2.30	- Lunch	3.00	Ali Hemati Brinvalou
2.30	Clive Dickson	3.30	Norbert Perrimon
3.00	Lee Niswander	4.00	David Ish Horowicz
3.30	Irma Thesleff	4.30-5.00	- Tea
4.00	Tony Pawson	5.00-6.00	Young Scientist Research Talks
4.30-5.00	- Tea		
5.00	Pat Doherty		
5.30	M Teckeichi		

Thursday 2 April

9.00	Plenary
10.00	Cathie Martin
10.30	George Coupland
10.30-11.30	- Coffee
11.30	Caren Chang
12.00	Jeff Wrana

Friday 3 April

9.30	Tony Hunter
10.00	Vasillis Pachnis
10.30	David Wilkinson
11.00-11.30	- Coffee
11.30	Alan Hall
12.00	Jeff Williams

Workshop

There will be a BSCDB Workshop on 'Development of Skin'.

Please let us know of any changes of address

Please complete this form and send it to:

M.V. Clements, British Society for Cell Biology,
Department of Zoology, Cambridge University
Downing Street, Cambridge CB2 3EJ.
E-mail: zoo-jeb01@lists.cam.ac.uk

Name: Sex:

Position:

Academic qualifications:

Tel: Fax: E-mail:

Work address:

..... Postcode:

Research interests (five keywords):

Membership of other scientific societies:

GENES AND CANCER

UK Molecular Biology and Cancer Network meeting XIV

8th-10th December 1997, University of Warwick, UK.

KEYNOTE LECTURE

BALMAIN (San Francisco)

GENE EXPRESSION

GHYSDAEL (Paris) * RABBITS (Cambridge) * KOUZARIDES (Cambridge)
JONES (London) * PARKER (London) * WESTON (London)

GENOME INTEGRITY

DE LANGE (New York) * JACKSON (Cambridge) * WOOD (London)
SVEJSTRUP (London) * HICKSON (Oxford) * CARR (Sussex)

CANCER AND DEVELOPMENT

HILL (London) * BIENZ (Cambridge) * WRANA (Toronto)
BIRCHMEIER (Berlin) * LEWIS (London)

GENES AND THERAPEUTICS

SPRINGER (London) * LANE (Dundee) * GILMAN (Boston)
VILE (London) * O'HARE (Oxford)

POSTERS and TRADE EXHIBITION

Registration £50 (students £25). Accommodation and all meals £140 / £165

APPLICATION FORMS AND FULL DETAILS FROM:

Dr Helen Hurst, FAX 0181-383-3258, E-MAIL h.hurst@icrf.icnet.uk
www.icr.ac.uk/ukmbcn/info.htm

Deadline for poster abstracts: October 17th 1997

Registration deadline: November 10th 1997

4th Abercrombie Symposium

Cell Behaviour: control and mechanism of motility

St Catherine's College, Oxford, UK, 28 September–1 October 1997

Organisers: J.M. Lackle, G.A. Dunn and G.E. Jones

Molecular biology is providing information about genes and their products at an accelerating rate and it is clearly necessary to ascribe functions to the many novel proteins now being reported. For this reason there has been a resurgence in whole-cell biology as these functions are sought. This meeting will bring together leading international workers whose research spans the molecular and whole-cell analyses of motility. In addition to discussing the components of the motile apparatus and the molecular mechanisms that generate locomotion, the contributors will present a wide spectrum of systems that model the behaviour of cells when they are stimulated by diverse environmental cues. We anticipate that this meeting will generate new ideas on how the molecular processes which underpin motility are harnessed and integrated at a whole-cell level.

Scientific Programme

Part A: Control of Motility

29 September 1997

Morning: Introduction. G. Gerisch (Martinsreid)

Motile Responses—the phenomena

A.S.G. Curtis (Glasgow)
R. Tranquillo (Minnesota)
P. Doherty (London)
M. Mareel (Belgium)

Afternoon: Intracellular control. Systems—transduction

D. Critchley (Leicester)
E. Rozengurt (London)
M. Humphries (Manchester)
J. Westwick (Bath)

Evening Reception and Poster Session

30 September 1997

Morning: Cytoplasmic control of the motor machinery

A. Ridley (London)
J. Collard (Amsterdam)
K. Howard (London)
A. Bershadsky (Israel)

Part B: Mechanism of Motility

30th September 1997

Afternoon: Cytoskeletal dynamics

G. Borisy (Madison)
M. Schliwa (Munich)
L. Cramer (London)
M. Sheetz (N. Carolina)

Evening: Conference Dinner

1 October 1997

Morning Dynamics of motility

I. Weber (Martinsreid)
T. Stossel (Boston)
M. Peckham (London)
E. Elson (St Louis)
A.K. Harris (N. Carolina)

4th Abercrombie Symposium

Cell Behaviour: control and mechanism of motility

St Catherine's College, Oxford, UK, 28 September–1 October 1997

Registration form

Name.....(M/F)

Address.....

.....

.....Phone.....Fax.....Email.....

Registration fees:

The registration fee includes the cost of light refreshments and the wine reception, provision of a meetings book and pre-purchase of the Symposium Volume at a substantial discount price negotiated with the publishers. We regret that student registration does not include the symposium volume.

BSCB/SEB Member	£85
Non-Member	£100
Student Member	£30
Student Non-member	£40

Accommodation:

Accommodation has been booked at St Catherine's College and comes as a 3 night booking inclusive of the conference dinner and all other meals.

Room only £185

Room en suite (limited availability) £215

If you wish to have a parking space, please cross the box ☐

Payment for both registration and accommodation is by cheque (preferably £ sterling or Eurocheque, but will accept major currencies). All cheques should be made payable to "Abercrombie Conference Fund".

Posters:

A single poster session will be held to run concurrently with the wine reception. If you wish to submit a poster please provide an abstract of no more than 300 words (including title and authors) in plain (ASCII) text on a 3.5" disk formatted for either MS-DOS/Windows or Macintosh. Attach two printed copies of your abstract. All abstracts must be submitted and posters presented by first author. On the same disk, but in a separate file, include the first authors and full address separated by commas (e.g. First name, Last name, Department, Institute, Address, City, Postcode, Country).

Please send the completed form, any abstract and a signed cheque to:

Dr John Lackie, Yamanouchi Research Institute, Littlemore Hospital, Oxford, OX4 4XN by 1 July, 1997.

Later registrants will incur a penalty fee.

Minutes of the BSCB Annual General Meeting

The AGM was held on 24th March 1997 at the ECBO 97 conference in Brighton

1. President's welcome

Ron Laskey (President) welcomed members of the BSCB to this Annual General Meeting and introduced the committee members present; Stuart Kelie (Treasurer), Birgit Lane (Secretary), Murray Stewart (Meetings Secretary), Theo Bloom (Newsletter Editor), Viki Allan, Steve Winder and Claire Isacke.

2. Minutes of the last AGM

There were no matters arising from the minutes of the last AGM (published in last Summers' Newsletter).

3.1 New members

The 98 new members joining since April 1996 were welcomed to the Society.

3.2 Committee membership

There have been 2 resignations from the Committee this year: Professor Peter Goodfellow and Professor David Critchley, both through pressure of work. Theo Bloom's term as Newsletter Editor is also coming to an end. Louise Cramer will succeed Theo Bloom and Steve Winder will take over from David Critchley.

3.3 East European Bursars

Six East European Bursaries had been awarded to enable young scientists from East Europe to attend the ECBO meeting. The recipients are:-

Jan Brabek, Czech Republic
Agnes Grallert, Hungary
Petr Hlozaneck, Czech Republic
Natasha Pocuca, Yugoslavia
Iva Slaninova, Czech Republic
Jan Snasel, Czech Republic

3.4 BSCB logo

The Secretary thanked members for the number of designs for the logo which had been submitted, many of which involved a lot of thought and a lot of work in drafting them. The Committee had discussed the submissions extensively, and had voted to adopt a simpler version of an image based on a mitotic cell. This was a motif with which it was felt the largest number of members would identify; many of the others were rather specialised. Sketches are being sent to a graphic artist for polishing up. The new logo will be incorporated in the BSCB's web page, and will appear in the Winter Newsletter.

4. Treasurer's report

The Treasurer presented the Statement of Accounts for the Society for this year, and thanked the Company of Biologists for their continued support. The collection of membership fees by direct debiting is well in progress and about half of the membership fees are now collected this way. The Treasurer asked Society members to please check that their banks are cancelling old standing orders when they convert to direct debiting as it is almost impossible for the Treasurer to do this on your behalf. The continuation of old standing orders means that the Treasurer needs to check each individual subscription collected by direct debit to make sure the members are not paying twice.

5. Meetings Secretary's report

The Meetings Secretary presented the list of upcoming BSCB meetings for the next 12 months. He also formally requested that the members of the Society would make suggestions as to topics they wish to see represented in the BSCB meetings. Suggestions should be sub-

mitted to the BSCB Committee as soon as you think of them.

6. Publications report

In view of the Company of Biologists' reluctance to continue publishing the BSCB Newsletter due to changes in other commitments, the Society has had to find an alternative publisher. Cambridge University Press have submitted competitive quotations for this which will be accepted.

Theo Bloom reported on the continuing ASE links with science teachers, and the success of Kay Davies' lecture at the ASE conference last January.

7. Any other business

There being no other business, the meeting closed at 6.45 pm. The British Society for Cell Biology thanks Theo Bloom for the immense amount of hard work that she has put into the production of the Newsletter during her term as Newsletter Editor.

E-mail addresses

The BSCB would like to add e-mail addresses to its existing database of members' addresses. If you have an e-mail address, please complete this form and send it to:

M.V. Clements, British Society for Cell Biology, Department of Zoology, Cambridge University, Downing Street, Cambridge CB2 3EJ. E-mail: zoo-jeb01@lists.cam.ac.uk

Name:

Tel:

Fax:

Institutional affiliation:

E-mail address:

Progress in Cell Cycle Research

Vols 1 & 2

Volume 1, edited by Laurent Meijer, Silvana Guidet, and H.Y. Lim Tung

Volume 2, edited by Laurent Meijer, Silvana Guidet and Lee Vogel

Progress in Cell Cycle Research is a new annual series designed to be the source for up-to-date research on this rapidly expanding field. Review articles by international experts examine various aspects of cell division regulation from fundamental perspectives to potential medical applications. Researchers as well as advanced undergraduate and graduate students in cell biology, biochemistry, and molecular biology will benefit from this series.

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Internet address via the worldwide web: <http://www.plenum.com>
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Volume 1

Topics range from DNA replication, RNA transcription and protein translation to signal transduction, cell biology and immunology and include many organisms: yeasts, frogs, flies, mice, men and more.

0-306-45280-4/1995/375pp/ill/\$75 US & Canada/
\$90 (£54.54) Elsewhere

Volume 2

Focuses on intracellular communication-the key to cell division and hence to the inhibition of division of malignant cells-in terms of such highly evolved mechanisms as cyclin dependent kinases (cdk's).

0-306-45507-2/1996/282pp/ill/\$75 US & Canada/
\$90 (£54.54) Elsewhere

The Language of Science
Plenum
Publishing Corporation

Constitution of the British Society for Cell Biology

(Amended 1995)

General

1. The Society shall be called the British Society for Cell Biology.

2. The objects of the Society shall be to promote the advance of research in relation to all branches of cell biology and to encourage the interchange of information.

Office-Bearers and Committee

3. The Officers of the Society shall be a President, a Secretary, a Treasurer, a Meetings Convenor, a Membership Secretary, a Newsletter Editor and a Publications Convenor.

4. There shall be an Executive Committee of the Society consisting of the Officers and of twelve other elected members.

5. The Executive Committee shall prepare the Agenda for meetings of the Society, and between meetings shall act as necessary on behalf of the Society; it shall report on any such actions as indicated, to the next meeting of the Society.

6. The Executive Committee shall be elected at the Annual General Meeting. The Officers of the Society shall be elected by the Executive Committee. The President shall be nominated by the Executive Committee.

Nominations for the Executive Committee may be made by the committee or by any two ordinary members and shall be sent together with the written consent of the nominee, to the Secretary so as to reach him/her at least two months before the Annual General Meeting. Any member unable to

attend the AGM may obtain a list of the nominees from the Secretary and may cast a postal vote which must reach the Secretary before the AGM. If other nominations are not received for the filling of vacancies, the committee's nominees shall be deemed elected.

7. The Executive Committee shall be elected for 3 years. President, Secretary, Treasurer, Publications Convenor and the Meetings Convenor may be re-elected by the Executive Committee, subject to approval at the next AGM, for a second term of office of another three years. They shall then not be eligible for re-election to the same office for one year, but they shall be eligible for any other office in the Society.

8. Each year the two ordinary members of the committee senior in order of election shall retire from office and shall not be eligible for re-election for one year.

9. Any vacancy occurring in the Committee other than by annual retirement, shall be filled by another member of the Society, to be elected by the Committee. The date of termination of this office shall then be that of the replaced Committee Member.

Membership

10. The Society shall consist of Members engaged in or directing work of the nature indicated in Article 2 (or undertaking shortly to become so active) and of Honorary members.

11. A candidate for ordinary membership of the Society may be proposed by two or more

members, to whom he or she is known personally; alternatively, direct applications accompanied by a *Curriculum Vitae* may be considered by the committee. The names and qualifications of these candidates must be sent to the Secretary on the form provided for the purpose, and the applications approved by the Executive Committee. A list of the approved candidates will be circulated or read out to the membership at the Annual General Meeting (or at an ordinary meeting of the Society).

12. The Executive Committee shall have the power to terminate a membership if such termination appears to them to be in the interest of the Society.

Honorary Membership

13. Honorary Members of the Society shall not number more than ten.

14. Nominations for Honorary Membership shall be put forward by the Executive Committee and shall be circulated to Members with the Agenda for the Annual General Meeting. Members who cannot attend the meeting shall be entitled to vote by post if they wish, by writing to the Secretary before the AGM. To qualify for election, a nominee must be supported by nine-tenths of the Members who take part in the voting.

Membership Subscriptions

15. Members shall pay to the Society's account, an annual subscription, payable in advance, due on the 1st March, the amount of such subscription being determined at the Annual General Meeting of the Society and continuing in force until changed at a subsequent one. The Committee shall have the power to terminate membership if a member fails to pay his subscription after due notice has been given. Student members shall be made welcome at a reduced subscription.

16. For Membership of the Society to become effective a Banker's Order for the payment of subscription shall be received by the Treasurer within three months of the date of election, but the Committee shall have the power to relax this

requirement in the case of members resident abroad, or in other exceptional cases.

17. The funds and estates of the Society shall be derived from the annual subscriptions of members, donations, grants and other endowments accepted by the Executive Committee on behalf of the Society. They shall be administered by the Treasurer, acting on instructions given to the Executive Committee by the Society at its Annual General Meeting, for the furtherance of the objects of the Society.

18. The Accounts of the Society shall be audited annually, and a report made by the Treasurer to the Annual General Meeting.

Meetings

19. The Annual General Meeting of the Society shall be held at a place and time decided by the Committee. The Secretary shall circulate the Agenda to all members at least two weeks before the meeting.

20. Scientific meetings and special symposia relating to the objectives of the Society shall be arranged by the Executive Committee. Under normal circumstances these would include one main annual congress during which the Annual General Meeting of the membership would occur. At each Annual General Meeting the Executive Committee shall submit proposals, so far as is reasonably practicable, for the dates of other scientific meetings to be held during the ensuing twelve months. Unauthorized reports of proceedings shall not be disclosed to the press.

Alteration of Rules

21. Alterations of any Rule of the Society shall be made only at a General Meeting of the Society provided that notice of such alteration has been given on the Agenda of the meetings and two thirds or more of those voting on the alteration signify their assent. Members unable to attend the meeting shall be able to vote by post by writing to the Secretary before the AGM. Notice in writing of any proposed alteration duly seconded, shall be given to the Secretary at least two months before the meeting.

Treasurer's report

The British Society for Cell Biology

Statement of financial activities for the year ended 31 December 1996

	<u>1996</u>	<u>1995</u>
Income	£	£
Subscriptions	19934	15351
Mailing list	624	2584
Interest	1906	1939
Advertisements and fliers (Newsletter)	3026	1902
Sponsored lectures	2000	2000
Capitation grant from Company of Biologists	14188	13229
Meetings grant from Company of Biologists	12810	12425
Meetings returns	3473	526
Other	—	—
	<u>57961</u>	<u>49956</u>
 Less: expenses		
<u>Direct Charitable</u>		
Meetings	19310	22039
Newsletter	5664	8412
Membership handbook	—	—
Honor Fell Travel Awards	14107	13730
	<u>39081</u>	<u>44181</u>
 <u>Administration and other expenses</u>		
Secretarial	1176	2293
Committee travel and expenses	886	679
Subscriptions	3353	3217
Post and stationary	1361	261
Fax and phone	71	90
Bank charges	367	251
Accountancy and audit	282	276
Miscellaneous	2140	2203
	<u>9636</u>	<u>9270</u>
 Total expenses	<u>48717</u>	<u>53451</u>
 Surplus/(Deficit) for year	<u>9244</u>	<u>(3495)</u>

British Society for Cell Biology
Balance sheet as at 31 December 1996

	<u>1996</u> £	<u>1995</u> £
Current assets		
Amounts receivable	—	—
National Savings Bank Investment A/C	32163	30436
Abbey National Five Star A/C	5434	5254
Midland Bank current A/C	17453	10110
	<u>55050</u>	<u>45800</u>
Less: Current Liabilities		
Creditors and accruals	282	276
Net Assets	54768	45524
Financed by:		
Accumulated fund brought forward	45524	49019
Surplus for year	9244	(3495)
	<u><u>54768</u></u>	<u><u>45524</u></u>

Approved: S. Kellie, Trustee
 B. Lane, Trustee

2 April 1997

Independent examiner's report to the trustees of the British Society for Cell Biology on the financial statements for the year ended 31 December 1996

We have carried out an independent examination of the financial statements set out on the following pages under Section 43 Charities Act 1993. We confirm that the financial statements are in accordance with the books and records supplied to us, and that no matters have come to our attention giving us reasonable cause to believe that in any material respect proper accounting records have not been kept, or that they do not comply with accounting regulations.

We further confirm that no matter has come to our attention to which, in our opinion, attention needs to be drawn in order to obtain a proper understanding of the accounts.

David Cooke MA (Oxon) FCA
 David Cooke and Co.
 Chartered Accountants
 6 Seacourt Road
 Botley
 OXFORD OX2 9LD

2 April 1997

Treasurer's report

On the previous pages are the summaries of the financial activities of the BSCB for the year 1996.

As with previous years the main income was derived from two sources: subscriptions and the Company of Biologists. Subscription revenue was up from the previous year, due to an increased membership paying by Direct Debit. The COB generously gave us a Capitation Grant of £14,188, based on our membership, and a Meetings Grant of £12,810. As always, we are indebted to the COB for their continued support of the Society. We also received more than £3,000 for adverts and fliers associated with the Newsletter.

Our main expenses were meetings expenses, the Honor Fell Travel Award scheme, and our newsletter. Our meetings expenses of £19,310 were substantially down from 1995, a not inconsiderable achievement given the general year on year price increases. The meetings organisers and secretary should be congratulated. The Honor Fell Travel Award distributed 82 grants (up from 65 in 1995) which will total more than £14,000, because some of the monies were processed in 1997, however this increase is in line with the committee's desire to gradually increase the HFTA scheme. Thanks go to Davis Edgar for administering the scheme. The Newsletter was the other costly item, where we paid out £5,664, again a slight decrease on 1995. Much of this expenses can be offset by increased revenues from Newsletter advertising as described above.

Our total profit for 1996 was £9,244, which compares favourably with our loss of £3,495 in 1995. This was higher than expected, mainly due to the savings described above and the decreased losses associated with our meetings. As stated, the main unpredictable element in the BSCB year is the success of the spring meeting, where any potential profits can be eliminated by poor attendance. Our assets are in good order, and can provide a cushion for any unexpected losses which might occur, as happened in 1995. We hope the extra income accrued this year will be mainly redistributed to our members in the form of increased HFTA awards and support for quality meetings.

A plea from the Treasurer to those members who originally paid by standing order and have switched to direct debit

Could all members who are paying by Direct Debit as a replacement for Standing Orders please contact their banks individually to ensure that the previous Standing Orders have been cancelled. It appears that a substantial proportion of the banks have failed to cancel Standing Orders in favour of Direct Debits (even though the Direct Debit form explicitly instructs them to do so), thus some members are paying twice: once by Standing Order and gain by Direct Debit. Whilst I try to keep track of this and I adjust the Direct Debit payments accordingly, this is very time consuming and I miss some double payments because the Standing Order information comes to me as part of a normal bank statement and the payees are not listed in any alphabetical or numerical order. Unlike Direct Debits, I have no control over Standing Orders, so it is incumbent upon the individual members who now pay by Direct Debit to check that their banks have indeed stopped any previous Standing Order.

Advertising in the BSCB Newsletter

Current charges for display advertisements:

<i>Back cover:</i>	Black and white	£275
	Colour	£400
<i>Inside front cover:</i>	Black and white	£275
<i>Full page inside:</i>	Black and white	£220
<i>Half page inside:</i>	Black and white	£110
<i>Quarter page inside:</i>	Black and white	£55

Discounts are available for BSCB members and scientific organisations, and for anyone booking a series of advertisements in consecutive Newsletters.

The BSCB can also enclose flyers with the Newsletter, or supply mailing list labels.

For all advertising enquiries, contact

Margaret Clements, Department of Zoology, Cambridge University, Downing Street, Cambridge CB2 3EJ.

Honor Fell travel awards

Awards are made, up to a limit of £200, to provide financial support for young BSCB members to attend meetings. The following rules usually apply (at the discretion of the Committee):

- Awards are not normally made to applicants aged over 35
- Applicants must have been BSCB members for at least a year.
- No applicant will receive more than one award per year or 3 *in toto*.
- Applications are considered for any meetings relevant to cell biology

Applications (including a copy of the meeting registration form) should be sent to David Edgar (address on page 3) using a copy of the form below.

Application for an Honor Fell travel award

Name: Age:

Work address:

.....

..... Postcode:

Degrees (with dates):

Present position (graduate students give start year of PhD):

.....

Date of joining BSCB:

Record the years of previous Honor Fell awards (if any):

Key publications (2) or research interests:

.....

.....

Meeting for which application is made (Title, place, date):

.....

Are you giving an invited/contributed poster/talk?: YES ☐ NO ☐ (please tick box)

If yes, give title:

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Have you submitted any other applications for financial support?: YES ☐ NO ☐

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Supporting statement by Head of Department:

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Applicant's signature: Date:

New members since April 1996

Alam, Y.	Floyd, H.	Ola Ayodele
Archer, Mr. D.F.	Glenn, D.	Parsons, M.
Armitage, S.	Haig, Dr. T.	Penney, Mary
Ayscough, Dr. K.	Harrison-Lavoie, K.	Pleass, Dr. R.
Beausang, Dr. E.	Hayes, A.J.	Ponting, Dr. J.
Bishop, Anne	Heck, M.M.S.	Poziemba, A.
Blanc-Brude, O.P.	Heitz, M.	Price, C.
Bloor, B.K.	Holland, Dr. K.A.	Ramage, A.C.
Bowen, S.L.	Holmes, T.M.	Raza, F.S.
Brandon, N.	Hutchins, J.R.A.	Reynolds, L.
Burrows, J.F.	Jennings, Dr. B.H.	Rice, L.
Burrows, L.	Jouet, Dr. M.	Richardson, A.
Choudhry, Dr R.	Kazmi, S.H.	Robson, Dr. L.
Chubb, J.	Keilty, G.	Rouiller, I.
Clelland, Dr J.D.	Kemp, S.	Rumsby, Dr. M.G.
Coates, J.	Kramer, Dr. I.M.	Sacre, S.
Coralli, C.	Krause, S.A.	Sarkar, Mitali
Cospedal, R.	Kuhlman, Dr P.	Schofield, Neil
Coutinho, A.P.	Lamb, J.	Schorl, C.
Cuthert, A.P.	MacCallum, D.E.	Scott, C.
Deakin, A.	March, P.	Shanmugalingham, S.G.
Dean, C.	Martin, R.J.L.	Shittu, K.
Donnelly, S.R.	McCann, Dr. T.	Sowa, M.P.K.
Doufexis, M.	McCann, Fiona	Sullivan, R.
Earnshaw, Prof. W.	McDonald, Dr. F.	Sunters, A.
East, Dr. J.M.	Milgate, C.J.	Tasker, Maria
Ehler, Dr E.	Nieduszynski, C.	Thomson, Laura
English, M.	Niesler, C.U.	van Heyningen, P.
Escott, G.	Niranjan, Birunthi	Wattanaroonwong, N.
Faragher, A.J.	O'Dedra, Dr. R.M.	Webster, K.
Farmaki, Theodora	O'Donovan, E.	Wilkins, A.
Field, Dr. H.	O'Kane, Dr S.	Williams, M.J.
Field, Dr. M.C.	O'Mahony, O.A.	Wolstenholme, P.A.

Where are they now ?

If you have a present address for any of the following BSCB members, please notify Margaret Clements, E-mail: zoo-jeb01@lists.cam.ac.uk or Fax: 01223 353980

Adams, M.J.	Brunet, C.L.
Albano, R.M.	Bullock, Dr G.
Alexander, Dr C.M.	Burditt, Dr L.J.
Anderson, R.C.	Burns, Dr R.B.
Ashton, Dr B.A.	Burns, R.
Attaran, A.	Buss, Dr F.
Barrett, K.E.	Cain, Dr. K.
Bayley, C.C.R.	Calderwood, D.A.
Bennett, A.	Carpenter, D.
Bentley, Dr D.L.	Carroll, Dr A.
Bertwistle, D.	Carson, F.L.
Birch, Dr M.	Cassella, J.P.
Blackbourn, Dr H.D.	Catt, Dr J.W.
Bradley, L.	Chambers, C.
Britton, Dr C.	Chan, A.
Brooks, Dr G.	Chang, Dr S.E.
Brophy, Dr P.J.	Chapman, R.E.
Brown, A.	Charlton, J.A.

Charlton, M.A.
 Cheng, Y-F D
 Chisholm, A.A.K.
 Clarke, Dr G.D.
 Collick, A.
 Collinson, A.
 Comerford, Dr J.G.
 Cook, Dr A.G.
 Cooper, Dr A.
 Cooper, Dr J.M.
 Corps, Dr A.N.
 Cowley, E.
 Craddock, Dr V.M.
 Crangle, K.D.
 Cranston, A-N
 Cutts, T.J.R.
 Davies, D.
 Dawson, S.
 Delcommenne, Dr M.
 Dey, Dr B.R.
 Ding, J.
 Dingwall, Dr C.
 Donaldson, A.
 Dornan, A.J.
 Doyle, Melanie
 Elliott, Dr G.C.
 Ellison, Dr. D.
 Epstein, H.
 Essex, L.J.
 Farrell, Dr S.M.
 Ferry, B.L.
 Fishel, Dr S.B.
 Fisher, Dr D.
 Flear, A.K.
 Foreman, Dr D.M.
 Freeman, Dr T.C.
 Gilmour, Dr. R.S.
 Gomm, J.J.
 Gomperts, Dr M.
 Gooday, D.J.
 Goodwin, S.F.
 Goold, R.
 Gosti, M.
 Gourdie, Dr R.G.
 Grey, Dr A.M.
 Griffin, Dr S.
 Guilly, M.
 Hardy, Dr D.
 Harfst, E.
 Hargreaves, Dr A.J.
 Hattersley, G.
 Hawes, S.
 Heaysman, Dr J.
 Hoffman, Dr. R.
 Horsley, D.

Hourihan, Dr H.
 Hull, R.A.
 Hunt, Dr S.
 Hunter, Dr I.S.
 Imrie, Dr R.C.
 Irwin, C.
 Jacobs, Dr H.T.
 Jacobs, Dr M.
 Jacobson, Dr. M.
 Jacobson, Dr M.D.
 Jagannathan, Dr R.
 Jarrett, A.L.
 Jones, Dr B.M.
 Jones, Dr N.A.
 Jones, P.
 Kelsell, Dr R.
 Kenton, P.
 Kersey, P.J.
 Khoo, B.
 King, Dr. R.J.B.
 Knight, Dr V.A.
 Lachs, Dr M.
 Lamb, J.C.
 Leggett-Bailey, Prof J.
 Lewis, Dr J.H.
 Lorimer, J.
 Lowery, Dr R.S.
 MacFarlane, Dr. M.
 Madine, M.A.
 Makkerh, J.P.S.
 Malloch, G.D.A.
 Marsh, K.A.
 Mbai, F.
 McCormick, Dr D.
 McCormick, Dr J.
 McNamara, A.
 Meldrum, R.
 Mills, Dr C.
 Mohammed, Dr M.
 Monjardino, Dr J.P.
 Morgan, G.
 Moriarty, Dr. P.
 Morris, C.B.
 Morrison-Shetlar, Dr A.I.
 Mota, Dr M.A.
 Mowat, Dr G.N.
 Muir CBE FRS, Dr H.
 Murray, K.
 Neal, Dr G.E.
 Nelson, Dr W.J.
 Norbury, Dr C.
 O'Farrell, Dr M.K.
 Oakley, C.
 Ogg, D.
 Pabbathi, V.K.

Paterson, A.
 Pelengaris, S.
 Picardo, Dr M.
 Pillidge, L.
 Ploubidou, A.
 Pollock, R.A.
 Prigent, S.
 Pritchard, J.
 Qiu, J.
 Rees, Dr D.J.G.
 Reid, A.
 Reid, Dr. Laurence
 Reid, S.
 Riaz, A.
 Richardson, T.
 Rieid, G.G.
 Ring, C.
 Roberts, Dr G.A.
 Robinson, Dr I.M.
 Sarrias, S.
 Shafiee, A.
 Sheldrick, K.
 Shotton, Dr D.M.
 Sibbons, P.D.
 Simpson, F.
 Simpson, N.
 Smith, Dr J.M.
 Smith, Dr R.D.
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 Starling, Dr D.
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 Tata FRS, Dr J.R.
 Thick, J.A.
 Thompson, M.
 Volkers, Dr S.A.S.
 Waldmann, T.
 Wallace, A.
 Ward, Dr R.H.R.
 Waterhouse, R.
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 West, Dr. D.C.
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 Wilkinson, L.J.
 Wise, I.
 Wong, A.K.Y.
 Woodman, Dr P.G.
 Woodward, R.
 Wright, Dr E.
 Yendle, Dr J.E.
 Young, T.
 Yue, Dr K.K.M.
 Zhai, W.

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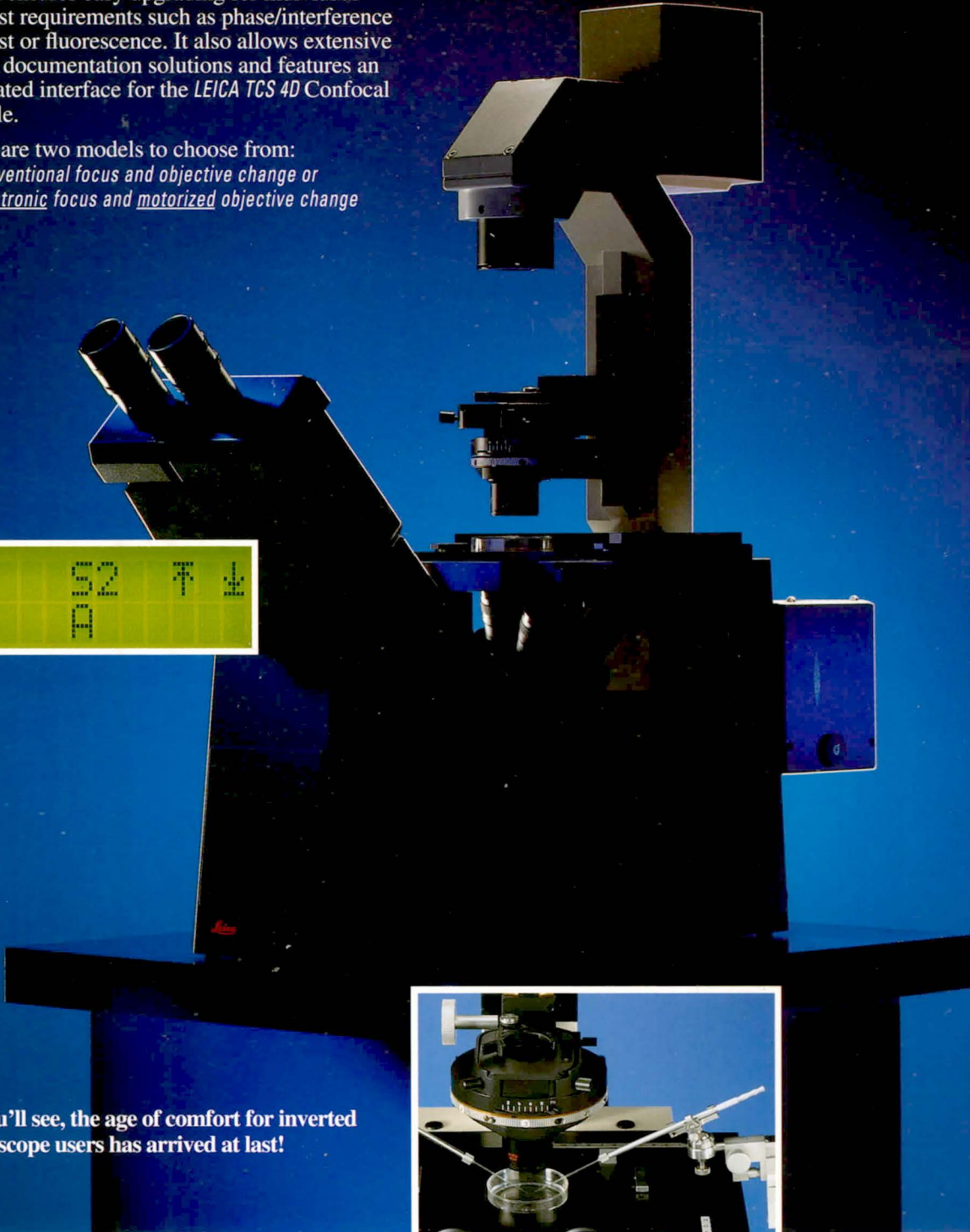
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