

Autumn 1986

University of Sussex
4th & 5th September, 1986

Local organizers: J. Bacon & Chris Ford.

This will be a workshop style meeting, emphasizing current research rather than review style presentations, on the following subjects:-

"DEVELOPMENTAL NEUROBIOLOGY IN INSECTS AND VERTEBRATES"
Organizers - J. Bacon, Vernon French & Nigel Holder.

"PHYSICAL APPROACHES TO SPATIAL ORGANIZATION IN DEVELOPMENT" Organizers - Brian Goodwin and R. Ransom.

There will also be an additional subject yet to be arranged.

BSDB Autumn Meeting, University of Sussex 4th and 5th September, 1986.

There will be two parallel topics at this meeting -

- 1) DEVELOPMENTAL NEUROBIOLOGY - Organised by Nigel Holder and Jonathan Bacon

Thursday 4th September, 1986

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| 1000 | Welcome to Sussex |
| 1010 | Alun Davies (St. George's London) - Neurotrophic requirements of sensory neurons in the chick embryo |
| 1100 | Short talks |
| 1140 | Gerd Technau (Köln) - HRP studies of early events in <u>Drosophila</u> neurogenesis. |
| 1230 | General Discussion |
| 1240 | LUNCH |
| 1400 | The Virgin Lecture (Sponsored by Virgin Atlantic). Rod Murphy (Albany, N.Y.) Development of sensory projections in insects |
| 1500 | Short talks |
| 1530 | TEA |
| 1600 | Bill Harris (San Diego) - Development of the retino-tectal projection in amphibians. |
| 1650 | General Discussion |
| 1715 | DINNER |
| 1930 | Short talks |
| 2010 | Stan Kater (Fort Collins, Colorado) - <u>In vitro</u> studies of synapse formation between identified snail neurons |
| 2100 | Discussion |
| 2100 | LATE BAR |

Friday 5th September

- 0900 Jeremy Taylor (Edinburgh) - Pathway cues in the retino-ectal system
- 0950 Dennis Bray (London) - Movements of growth cones in culture.
- 1040 COFFEE
- 1110 Short Talks
- 1150 Professor P. Bonhoeffer (Tubingen) - Studies of neuronal specificity in culture
- 1240 General Discussion

THERE WILL BE SPACE IN THE PROGRAMME FOR 10 SHORT TALKS, GIVEN BY YOUNGER MEMBERS OF THE SOCIETY (PRIMARILY GRADUATE STUDENTS AND POST-DOCS.). WOULD THOSE INTERESTED PLEASE SUBMIT ABSTRACTS TO NIGEL HOLDER (SEE END OF NEWSLETTER FOR ADDRESS). THERE WILL ALSO BE A POSTER SESSION. ABSTRACTS TO NIGEL HOLDER BY THE END OF JULY PLEASE.

2) PHYSICAL CORRELATES OF MORPHOGENETIC PHENOMENA

Organisers B.C. Goodwin and R. Ransom, Open University

The object of this meeting is to explore a range of physical processes that may be involved in spatial organisation and morphogenesis, and the techniques that are available for studying them. The forces characteristically result in long range order in developing systems over distances of μm to mm within cells and cell sheets, and coordinate movements over similar dimensions.

Thursday 4th September, 1986

Morning Session: Chairman, B.C. Goodwin

- 0900 J. Clegg (Davis, California) Coherent excitations, long range order and cell architecture.
- 0950 C.W. Smith (Salford) Possible roles of electromagnetic fields in biological structure and function.

- 1040 Coffee
- 1100 M.S. Cooper (Berkeley) The control of cell motility and cell growth by external electric fields.
- 1150 C.D. Stern (Oxford) Mechanoelectrical events in early vertebrate development.
- 1240 LUNCH
- Afternoon Session: Chairman, R. Ransom
- 1400 J. Lohman (Oxford Research Systems) In vivo imaging and localized NMR spectroscopy of the locust embryo Schistocerca gregaria.
- 1450 R.G. Ratcliffe (Oxford) NMR techniques for investigating the compartmentation of plant tissues.
- 1540 TEA
- 1600 B.C. Goodwin (Open University) The mechanochemistry of cyto-plasmalemma-cell wall interactions in plant morphogenesis.
- 1650 J.D. Murray (Oxford) Complex spatial patterns from tissue interactions: an illustrative example.