

# **British Society for Developmental Biology**

**37th MEETING**

**11th - 14th APRIL, 1978**

Department of Zoology, University of Oxford

*Local Secretary: Professor RICHARD GARDNER*

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## **PROGRAMME**

**TUESDAY, 11th APRIL**

19.30 - 20.30      **BUFFET SUPPER**  
20.30                **WORKSHOP ON "CELL MARKERS"**

*Chairman: Dr. ANNE McLAREN*

**WEDNESDAY, 12th APRIL**

**Session 1**

*Chairman: J. B. GURDON (Cambridge)*

- 09.00 - 09.20      J. S. KNOWLAND and B. R. WESTLEY (Oxford)  
"The control of vitellogenin synthesis by estrogen in the frog *Xenopus laevis*".  
09.20 - 09.40      C. DARNBROUGH (Edinburgh)  
"Poly (A) processing initiated at the time of germinal vesicle breakdown during amphibian oocyte maturation".  
09.40 - 10.00      P. C. TURNER and P. J. FORD (Edinburgh)  
"Messenger RNA synthesis in enucleated oocytes of *Xenopus laevis*".  
10.00 - 10.20      E. M. De ROBERTIS (Cambridge)  
"Nucleocytoplasmic interactions in *Xenopus oocytes*".  
10.20 - 10.40      J. M. CRAMPTON (Warwick)  
"The dissection of nucleocytoplasmic interactions *in vitro*".  
10.40 - 11.10      **COFFEE**

**Session 2**

*Chairman: J. S. KNOWLAND (Oxford)*

- 11.10 - 11.30      C. C. FORD (Sussex)  
"Cytoplasmic induction of DNA synthesis".  
11.30 - 11.50      N. MACLEAN, N. CHAGINI, S. GREGORY and V. HILDER (Southampton)  
"Transcriptional reactivation of isolated nuclei by cytoplasm".  
11.50 - 12.10      J. C. OSBORN and M. STANISSTREET (Brussels and Liverpool)  
"Nucleocytoplasmic interactions in the development of Lithium-treated embryos of *Xenopus laevis*".  
12.10 - 12.30      R. WALL and M. STANISSTREET (Liverpool)  
"Studies on RNA translation in normal and abnormal *Xenopus embryos*".  
12.30 - 12.50      I. W. CRAIG and E. MUNRO (Oxford)  
"Nucleocytoplasmic interactions in somatic cell hybrids".  
12.50 - 14.15      **LUNCH**

**Session 3***Chairman: D. B. ROBERTS (Oxford)*

- 14.15 - 14.35 G. RICHARDS (Cambridge)  
"Ecdysone and gene activity".  
14.35 - 14.55 J. D. SATO, D. J. POWELL and D. B. ROBERTS (Oxford)  
"The purification of mRNA for two larval serum proteins of *D. melanogaster*".  
14.55 - 15.15 M. E. AKAM, S. EVANS-ROBERTS and D. B. ROBERTS (Oxford)  
"Genetics of the larval serum proteins in *Drosophila*".  
15.15 - 15.35 C. SZPIRER and J. SZPIRER (Brussels)  
"Secretion of serum proteins and growth properties of diploid fibroblast-hepatoma cell hybrids".  
15.35 - 16.10 **TEA**

**Session 4***Chairman: A. E. WILD (Southampton)*

- 16.10 - 16.30 J. W. McAVOY ((Oxford)  
"Co-ordination of crystallin synthesis during rat lens morphogenesis and growth".  
16.30 - 16.50 J. G. REEVE and A. E. WILD (Southampton)  
"Controlling factors in lens regeneration from cornea in *Xenopus laevis*".  
16.50 - 17.10 P. THOROGOOD (Oxford)  
"*In vitro* studies of skeletogenic potential of membrane bone periosteal cells".  
17.10 - 17.30 A. G. CLARKE (Nottingham)  
"Does the thymus have an immunological role in pregnancy?".  
17.30 - 17.50 H. L. LIPSCOMB, S. BOHBRINK, W. K. METCALF, N. F. METCALF and  
J. G. SHARP (Omaha)  
"Alteration of growth and development of rat endocrine organs by thymectomy".  
19.30 **DINNER**

**THURSDAY, 13th APRIL****Session 5***Chairman: D. R. GARROD (Southampton)*

- 09.00 - 09.20 D. R. GARROD (Southampton)  
"Differentiation and pattern formation in slime mould development — an outline of the system".  
09.20 - 09.40 A. J. LAX (I.C.R.F., Mill Hill)  
"Cellular events associated with transition from aggregative to post-aggregative development".  
09.40 - 10.00 D. J. WATTS (Sheffield)  
"Control of the specific activity of N-acetylglucosaminidase and *a*-mannosidase in myxamoebae of *Dictyostelium discoideum*".  
10.00 - 10.20 J. A. SCHMIDT, G. E. JONES and J. L. STIRLING (London)  
"A chymotrypsin sensitive step in the development of *Dictyostelium discoideum*".  
10.20 - 10.40 M. J. NORTH and R. TURNER (Stirling)  
"Uptake studies on the cellular slime mould *Dictyostelium discoideum*, using E-aminocaproic acid (EACA) and putrescine".  
10.40 - 11.10 **COFFEE**

**Session 6***Chairman: J. GROSS (Mill Hill)*

- 11.10 - 11.30 R. R. KAY (I.C.R.F., Mill Hill)  
"Control of post-aggregative cell differentiation".  
11.30 - 11.50 J. SAMPSON (I.C.R.F., Mill Hill)  
"cAMP and the control of developmental gene expression".

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15.35 - 15.55	A. J. COPP (Oxford)
11.50 - 12.10	I. ZADA-HAMES and J. M. ASHWORTH (Leeds) "The cell cycle and its relationship to development in <i>Dictyostelium discoideum</i> ".
12.10 - 12.30	N. E. GILLIES, M. R. BAILEY and M. H. RATNAJOTHI (London) "Factors affecting the survival of spores of <i>Dictyostelium discoideum</i> after u.v. irradiation".
12.30 - 12.50	G. MANGIAROTTI and B. D. HAMES (Turin and Leeds) "Ribosomal RNA metabolism during development of <i>Dictyostelium discoideum</i> ".
12.50 - 14.15	<b>LUNCH</b>

**Session 7**

*Chairman: M. H. JOHNSON (Cambridge)*

14.15 - 14.35	R. M. MOOR and M. W. SMITH (Cambridge) "Amino acid transport in sheep oocytes".
14.35 - 14.55	L. R. FRASER (London) "Sperm penetration <i>in vitro</i> in relation to age of the egg".
14.55 - 15.15	J. H. MARSTON (Birmingham) "The mid-body, a useful marker during oocyte maturation, fertilisation and early cleavage in rodents, has it a functional significance?".
15.15 - 15.35	C. F. GRAHAM (Oxford) "Moment to moment in mouse preimplantation lineage". "Interaction of inner cell mass and trophectoderm in the mammalian blastocyst".
15.55 - 16.30	<b>TEA</b>

**Session 8**

*Chairman: W. D. BILLINGTON (Bristol)*

16.30 - 16.50	E. J. JENKINSON and R. F. SEARLE (Bristol) "Ontogeny and tissue distribution of MHC antigens on the mouse embryo".
16.50 - 17.10	M. DZIADEK (Oxford) "Alphafetoprotein synthesis in the early postimplantation mouse embryo".
17.10 - 17.30	E. D. ADAMSON (Oxford) "Collagen synthesis by teratocarcinoma and embryonic cells".
17.30 - 17.50	K. J. DILLON (Bristol) "Fc receptors on mouse embryonic tissues".
17.50 - 18.10	J. K. HEATH (Oxford) "PG-1: A new cell surface marker of the germ line in the mouse".
19.00 for 19.30	<b>CONFERENCE DINNER</b>

**FRIDAY, 14th APRIL**

**Session 9**

*Chairman: D. A. T. NEW (Cambridge)*

09.00 - 09.20	S. K. L. BUCKLEY (Cambridge) "The growth of trophoblast cells and Reichert's membrane in culture".
09.20 - 09.40	M. H. KAUFMAN (Cambridge) "Development of the optic primordia and closure of the neural tube in the cephalic region of the mouse embryo".
09.40 - 10.00	K. S. O'SHEA and M. H. KAUFMAN (Cambridge) "Study of experimentally-induced neural tube defects in the mouse".
10.00 - 10.20	G. M. MORRISS, B. PUTZ, A. GROPP and B. CRUTCH (Oxford and Lubeck) "Common factors in the development of exencephaly of genetic and environmental origin".
10.20 - 10.50	<b>COFFEE</b>

<b>Session 10</b>	<i>Chairman: B. C. GOODWIN (Sussex)</i>
10.50 - 11.10	B. C. GOODWIN (Sussex) "Pattern formation in the absence of genes and cellular partitions: regeneration in <i>Acetabularia</i> ".
11.10 - 11.30	M. BOWNES, A. JAMES and S. GLENN (Essex) "The re-establishment of pattern elements in regenerating wing discs of <i>Drosophila melanogaster</i> ".
11.30 - 11.50	V. FRENCH (Edinburgh) "Intercalary regeneration around the circumference of the cockroach leg".
11.50 - 12.10	M. MADEN (Mill Hill) "A model for the regeneration of pattern in an epimorphic field".
12.10 - 12.30	N. TURNER (Sussex) "Limb regeneration in Axolotl following blastema rotation".
12.30 - 12.50	C. D. STERN (Sussex) "Pattern formation in the early chick embryo".
12.50 - 14.15	<b>LUNCH</b>

<b>Session 11</b>	<i>Chairman: D. A. EDE (Glasgow)</i>
14.15 - 14.35	J. R. HINCHLIFFE (Aberystwyth) "Interdigital cell death in chick wing morphogenesis".
14.35 - 14.55	D. SUMMERBELL (Mill Hill) "The effect of impermeable barriers on pattern formation across the anterior-posterior axis of the limb bud".
14.55 - 15.15	J. C. SMITH (London) "Attenuation of a positional signalling and a positional memory".
15.15 - 15.35	C. TICKLE, L. WOLPERT and M. SAMPFORD (London) "The effect of X-irradiation on pattern formation along the proximo-distal axis in the development of the chick limb".
15.35 - 16.10	<b>TEA</b>

<b>Session 12</b>	<i>Chairman: J. R. HINCHLIFFE (Aberystwyth)</i>
16.10 - 16.30	A. HORNBRUCH, S. RENDLE and D. SUMMERBELL (Dunedin, N.Z.) "Regulation of deficiencies along the proximal-distal axis of the chick wing bud: the effect of the 'progress zone'".
16.30 - 16.50	G. B. SHELLSWELL (Bristol) "The formation of the muscle pattern in the developing chick wing — the role of the muscle connective tissue".
16.50 - 17.10	J. B. L. BARD (Edinburgh) "How zebra stripes could be laid down".