AUTUMN 1993, venue to be announced: Retinoic Acid in Development

This two day meeting is being organised by Malcolm Maden and will include sessions on: "Generation and Reception of Retinoic Acid Signals", "Retinoic Acid and the Primary Body Axis", "Retinoic Acid and the Specification of the Central Nervous System"," "Limb Development and Regeneration" and Retinoic Acid and Axonal Outgrowth in the Developing Nervous System". Prospective speakers include: P. Chambon, E. Boncinelli, T. Jessell, E. de Robertis, G. Eichele, N. Holder, D. Duboule, & J. Brockes.

Further details of this meeting will be given in the next edition of the Newsletter.

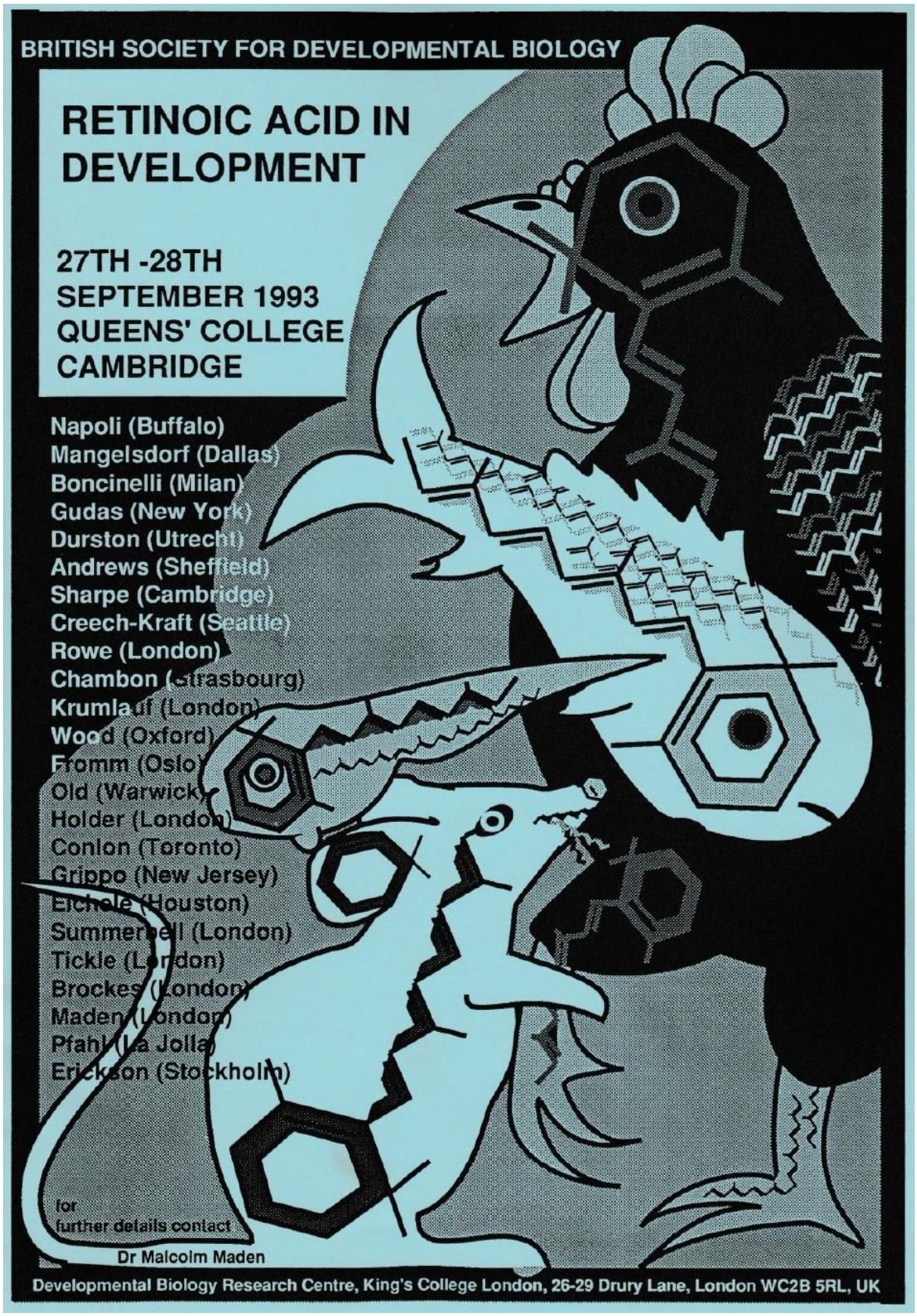
AUTUMN 1993, Queens' College, Cambridge: "Retinoic acid in Development"

This two day Symposium organised by Malcolm Maden will be held between the 26th and 28th of September next year. The meeting integrates studies of the effects of retinoic acid on cell differentiaition, limb development and axial regionalisation, with the molecular analysis of the mechanisms of retinoic acid activity and its target genes.

Speakers include:

Eriksson (Stockholm), Napoli (Buffalo), Chambon (Strasbourg), Pfahl (LaJolla), Mangelsdorf (La Jolla), Boncinelli (Milan), Conlon (Toronto), Grippo (New Jersey), Gudas (Columbia), Andrews (Sheffield) Creech-Kraft (Seattle), Durston (Utrecht), Krumlauff (London), Sharpe (Cambridge), Holder (London), Eichele (Houston), Summerbell (London), Brockes (London).

Full details of the programme along with Registration information, will appear in the next (Spring 1993) issue of the Newsletter.


BRITISH SOCIETY FOR DEVELOPMENTAL BIOLOGY
RETINOIC ACID IN DEVELOPMENT
27TH -28TH SEPTEMBER 1993
QUEENS' COLLEGE CAMBRIDGE
Napoli (Buffalo)
Mangelsdorf (Dallas)
Boncinelli (Milan)
Gudas (New York)
Durston (Utrecht)
Andrews (Sheffield)
Sharpe (Cambridge)
Creech-Kraft (Seattle)
Rowe (London)
Chambon (Strasbourg)
Krumlauf (London)
Wood (Oxford)
Fromm (Oslo)
Old (Warwick)
Holder (London)
Conlon (Toronto)
Grippo (New Jersey)
Eichele (Houston)
Summerbell (London)
Tickle (London)
Brockes (London)
Maden (London)
Pfahl (La Jolla)
Erickson (Stockholm)
for further details contact
Dr Malcolm Maden
Developmental Biology Research Centre, King's College London, 26-29 Drury Lane, London WC2B 5RL, UK

AUTUMN MEETING

"RETINOIC ACID IN DEVELOPMENT"

27TH - 29TH SEPTEMBER 1993
Queens' College, Cambridge U.K.
Scientific Organiser: M. Maden

Registration and abstract forms for this meeting can be found in the Centre Section of the Newsletter. The deadline for registration is July 1st.

PROGRAMME

Sunday 27th September

17.00 Arrival and Registration
18.00 Dinner
19.00 Reception and setting up of posters.

Monday 28th September

9.00 - 9.30 Ulf Eriksson (Stockholm):	*Cell surface retinol receptors*
9.30 -10.00 Joe Napoli (Buffalo)	*Metabolism of RA and CRABP*
10.00 -10.30 Magnus Pfahl (La Jolla)	*Retinoid receptor interactions*
Coffee	
11.00-11.30 David Mangelsdorf (Dallas)	*RXRs in development*
11.30-12.00 Lorraine Gudas (Cornell)	*RA and CRABP in EC cell differentiation*
12.30-13.00 Peter Andrews (Sheffield)	*RA in EC cell differentiation*
Lunch	
14.00-14.30 Joan Creech-Kraft (Seattle)	*Asymmetric distribution of retinoids in the* Xenopus *embryo*
14.30-15.00 Colin Sharpe (Cambridge)	*RARa genes in the* Xenopus *embryo*
15.00-15.30 Sigurd Fromm & Rune Blomhoff (Oslo)	*RAR knockouts in zebrafish and mice*
Tea	

16.00 -16.30 Pierre Chambon (Strasbourg)	*Gene knockouts reveal the role of retinoic acid receptors and binding proteins in the mouse*
16.30 -17.00 Annie Rowe (London)	*RARs in chick craniofacial development*
17.00 -17.30 Bob Old (Warwick)	*RAR knockouts in the* Xenopus *embryo*

Dinner

20.00 POSTERS AND DRINKS

Tuesday 29th September

9.00 - 9.30 Eduardo Boncinelli (Milan)	*RA and homeobox genes*
9.30 -10.00 Tony Durston (Utrecht)	*RA and homeobox genes in the* Xenopus *embryo*
10.00 -10.30 Nigel Holder (London)	*RA and respecification of the zebrafish CNS*

Coffee

11.00 -11.30 Robb Krumlauf (London)	*RA and respecification of the mouse CNS*
11.30 -12.00 Ron Conlon (Toronto)	*RA and homeobox genes in the mouse embryo*
12.00 -12.30 Joe Grippo (New Jersey)	*RA and homeobox genes in the mouse CNS*

Lunch

14.00 -14.30 Helen Wood (Oxford)	*RA and the developing mouse embryo*
14.30 -15.00 Gregor Eichele (Houston)	*RA and the developing chick embryo*
15.00 -15.30 Dennis Summerbell (London)	*Autoregulation of RA in the chick limb bud*

Tea

16.00 -16.30 Cheryll Tickle (London)	*RA and the developing chick limb*
16.30 -17.00 Jeremy Brockes (London)	*RA and the regenerating amphibian limb*
17.00 -17.30 Malcolm Maden (London)	*The transformation of tails into limbs by RA*

END OF MEETING

actual program

+ Archives

BSDB AUTUMN MEETING

"RETINOIC ACID IN DEVELOPMENT"
27TH - 29TH SEPTEMBER 1993
Queen's College, Cambridge U.K.

Sunday 27th September

5 pm Arrival and Registration
6 pm Dinner
7 pm Reception and setting up of posters.

Monday 28th September

9.00 - 9.30 *Ulf Eriksson (Stockholm)* "Cell surface retinol receptors"
9.30 - 10.00 *Joe Napoli (Buffalo)* "Metabolism of RA and CRABP"
10.00 - 10.30 *Magnus Pfahl (La Jolla)* "Retinoid receptor interactions"

Coffee

11.00- 11.30 *David Mangelsdorf (Dallas)* " RXRs in development"
11.30- 12.00 *Lorraine Gudas (Cornell)* "RA and CRABP in EC cell differentiation"
12.30-1.00 *Peter Andrews (Sheffield)* " RA in EC cell differentiation"

Lunch

2.00-2.30 *Joan Creech-Kraft (Seattle)* "Asymmetric distribution of retinoids in the Xenopus embryo"
2.30-3.00 *Colin Sharpe (Cambridge)* "RARα genes in the Xenopus embryo"
3.00-3.30 *Sigurd Fromm (Oslo)* " RAR knockouts in zebrafish and mice"

Tea

4.00 - 4.30 *Pierre Chambon (Strasbourg)* "Gene knockouts reveal the role of retinoic acid receptors and binding proteins in the mouse"
4.30 - 5.00 *Annie Rowe (London)* "RARs in chick craniofacial development"
5.00 - 5.30 *Bob Old (Warwick)* " RAR knockouts in the Xenopus embryo"

Dinner

8.00 POSTERS

Tuesday 29th September

9.00 - 9.30 *Eduardo Boncinelli (Milan)* "RA and homeobox genes"
9.30 - 10.00 *Tony Durston (Utrecht)* "RA and homeobox genes in the Xenopus embryo"
10.00 - 10.30 *Nigel Holder (London)* "RA and respecification of the zebrafish CNS"

Coffee

11.00 - 11.30 *Robb Krumlauf (London)* "RA and respecification of the mouse CNS"
11.30 - 12.00 *Ron Conlon (Toronto)* "RA and homeobox genes in the mouse embryo"
12.00 - 12.30 *Joe Grippo (New Jersey)* "RA and homeobox genes in the mouse CNS"

Lunch

2.00 - 2.30 *Helen Wood (Oxford)* "RA and the developing mouse embryo"
2.30 - 3.00 *Gregor Eichele (Houston)* "RA and the developing chick embryo"
3.00 - 3.30 *Dennis Summerbell (London)* "Autoregulation of RA in the chick limb bud"

Tea

4.00 - 4.30 *Cheryll Tickle (London)* "RA and the developing chick limb"
4.30 - 5.00 *Jeremy Brockes (London)* "RA and the regenerating amphibian limb"
5.00 - 5.30 *Malcolm Maden (London)* "The transformation of tails into limbs by RA"

CLOSE

MEETING REPORT

Retinoic Acid in Development: Cambridge September 27-28th

BSDB meeting or Institute Retreat? This was the dilemma that faced us. We chose the BSDB meeting,"Retinoic Acid in Development", and were not disappointed. The prospect of 26 speakers in two days seemed daunting, but organisation was such that the most uninformed of us were not swamped. A wide range of systems were presented ranging from EC cell culture to *Dictyostelium.*

The first speaker (Ulf Eriksson) gave a clear account of the molecular aspects of retinol metabolism and RA compartmentalisation, providing an excellent foundation for the following talks to build on.

The nuclear receptors for RA, introduced by Magnus Pfahl, were discussed at length by numerous speakers. It was interesting to see the number of RAR and RXR genes that are known to be expressed in vertebrates, and to note that many of these genes are alternatively promoted/spliced to produce several protein isoforms. However, the complexity of this system could only be appreciated when it was realised that these receptors interact as heterodimers which bind with slightly different stereospecificities to different RA Response Elements (RAREs). The first day ended with a seminal presentation of RAR gene knock-outs by Pierre Chambon. This work provides another example of gene redundancy in the mouse: ablation of individual isoforms have no developmental effect, but when the entire isoform complement of either RARa or RARg is removed mutant phenotypes ensue. Most impressively,Chambon showed how combinations of these knock-out mutations result in phenotypes associated with retinoid starved mothers. It was a shame he had just 30min. in which to summarise a huge amount of work!

On the second day, the emphasis shifted to RA responsive genes. A host of elegant *in situ* data were presented, examining the effect of RA on the expression patterns of Hoxb genes (Ron Conlon) while the responsive elements (RAREs) for this cluster were described by Heather Marshall. The effects of RA or the presence of retinoid responsive elements were covered for the HoxA, B and D gene families.

The final session of the meeting discussed the formation and regeneration of limbs. Cheryll Tickle illustrated that two molecules, RA and FGF4, could together substitute for the inductive signals provided by the apical ectodermal ridge during limb genesis. However, to us, the most striking observation was discussed by Malcolm Maden - the generation of pelvic girdles and several pairs of hind limbs on treatment of an amputated tadpole tail with RA. This is only known to occur in two species, an exotic Indian frog and the common English frog. These limbs can be examined easily as, following tail regression, the limbs drop off to be found in the bottom of the tank!

To conclude, this was another successful BSDB Autumn Symposium with good scientific content. Presentations were suitable for those with the most minimal knowledge of RA, with little material duplicated. Also, it is refreshing to attend a meeting which links multiple themes to better our understanding of the interactive processes involved in development. Much of the credit for this goes to Malcolm Maden, although he could have ordered some better weather!?

Susan Brown & Mark Carlton
Wellcome/CRC Institute
Cambridge