

Concepts and Model Organisms in Regenerative Biology

Satellite Short Course of the Fifth International Meeting of the

Latin American Society for Developmental Biology

Co-organized by the Society for Developmental Biology

November 2 –11, 2010.

Facultad de Ciencias Biologicas, Pontificia Universidad Católica de Chile, Santiago, Chile

Universidad de Chile, Santiago, Chile

Organizers: Miguel Allende (LASDB), Ida Chow (SDB), Richard Harland (SDB), Juan Larraín (LASDB)

LOCATIONS

- **LECTURES:** Sala Abate Molina (Facultad de Ciencias Biológicas, Univ. Católica)
- **PRACTICALS:** *Drosophila and Zebrafish:* Allende & Glavic Labs. (Facultad de Ciencias, Univ. de Chile)
Hydra, holothuria: Larraín Lab. (Facultad de Ciencias Biológicas, Univ. Católica)
Axolotl: Larraín Lab, microinjection room (Facultad de Ciencias Biológicas, Univ. Católica)
Mouse, salamanders, planaria: 1st floor, new building (Facultad de Ciencias Biológicas, Univ. Católica)
Bioinformatics: underground, new building (Facultad de Ciencias Biológicas, Univ. Católica)

PROGRAM

Tuesday – 11/2/10

- 13:00 – 17:00 Registration: Universidad Católica de Chile
- 16:30 – 17:00 Animal Use Training for Short Course Students
- 17:00 – 17:30 Introductory Remarks by Organizers
- 17:30 – 18:30 Allan Spradling, Carnegie Institution for Science, USA
Stem cell biology in Drosophila
- 18:30 – 19:30 Brigitte Galliot, University of Geneva, Switzerland
Head regeneration in Hydra
- 19:30 – 21:00 Opening Reception, at Patio Zócalo

Wednesday – 11/3/10

- 8:30 – 9:30 Juan Larraín, Universidad Católica de Chile, Chile
Spinal cord regeneration in Xenopus
- 9:30– 10:30 Felix Loosli, Karlsruhe Inst. of Technology, Germany
The killifish Medaka as a model system to study vertebrate development.

10:30 – 11:00 Coffee break

11:00 – 12:00 Miguel Allende, Universidad de Chile, Chile
Regeneration of mechanosensory cells in zebrafish

12:00 – 13:00 Richard Behringer, MD Anderson Cancer Center, USA
Stem cells, organogenesis and regeneration

13:00 – 14:30 Lunch at Centro de Extensión U. Católica

14:30 – 17:00 Concurrent Practical Sessions
Holothuria Group A – Garcia-Arrarás
Salamander Group B1 – Del Río-Tsonis, Tsonis
Axolotl Group B2 – Kragl

17:00 – 17:30 Coffee break

17:30 – 20:00 Concurrent Practical Sessions
Mouse Group A – Behringer
Hydra Group B – Galliot

20:00 Group dinner

Thursday – 11/4/10

7:45 Bus from Apart Hotel Principado de Asturias to Univ. de Chile

8:30 – 11:30 Concurrent Practical Sessions
Drosophila Group A – Spradling, Glavic
Zebrafish Group B – Allende, Yin, Schneider, Loosli

11:30 Bus from Univ. de Chile to Univ. Católica

12:00 – 13:00 Siobhan Brady, University of California-Davis, USA
A systems approach to plant development

13:00 – 14:30 Lunch at Centro de Extensión Univ. Católica

14:30 – 17:00 Concurrent Practical Sessions
Bioinformatics Group A– Brady
Salamander Group B1 – Del Río-Tsonis, Tsonis
Axolotl Group B2 – Kragl

17:00 – 17:30 Coffee break

17:30 – 20:00 Concurrent Practical Sessions
Mouse Group A – Behringer
Hydra Group B – Galliot

20:00 Dinner on your own

Friday – 11/5/10

- 7:45 Bus from Apart Hotel Principado de Asturias to Univ. de Chile
- 8:30 – 11:30 Concurrent Practical Sessions
Drosophila Group A – Spradling, Glavic
Zebrafish Group B – Allende, Yin, Schneider, Loosli
- 11:30 Bus from Univ. de Chile to Univ. Católica
- 12:00 – 13:00 Panagiotis Tsonis, University of Dayton, USA
Lens regeneration in salamander
- 13:00 – 14:30 Lunch at Centro de Extensión Univ. Católica
- 14:30 – 17:00 Concurrent Practical Sessions
Bioinformatics Group A– Brady
Salamander Group B1 – Del Río-Tsonis, Tsonis
Axolotl Group B2 – Kragl
- 17:00 – 17:30 Coffee break
- 17:30 – 20:00 Concurrent Practical Sessions
Mouse Group A – Behringer
Hydra Group B – Galliot
- 20:00 Group dinner

Saturday – 11/6/10

- 7:45 Bus from Apart Hotel Principado de Asturias to Univ. de Chile
- 8:30 – 11:30 Concurrent Practical Sessions
Drosophila Group A – Spradling, Glavic
Zebrafish Group B – Allende, Yin, Schneider, Loosli
- 11:30 Bus from Univ. de Chile to Univ. Católica
- 12:00 – 13:00 José García-Arrarás, University of Puerto Rico, Puerto Rico
*Intestinal regeneration in the echinoderm *Holothuria glaberrima**
- 13:00 – 14:30 Lunch at Centro de Extensión Univ. Católica
- 14:30 – 17:00 Concurrent Practical Sessions
Salamander Group A1 – Del Río-Tsonis, Tsonis
Axolotl Group A2 – Kragl
Bioinformatics Group B– Brady
- 17:00 – 17:30 Coffee break
- 17:30 – 20:00 Concurrent Practical Sessions
Hydra Group A – Galliot

Mouse Group B – Behringer

20:00 Dinner on your own

Sunday – 11/7/10

9:00 – 14:30 Free Time

14:30 – 17:00 Concurrent Practical Sessions

Salamander Group A1 – Del Río-Tsonis, Tsonis

Axolotl Group A2 – Kragl

Bioinformatics Group B– Brady

17:00 – 17:30 Coffee break

17:30 – 20:00 Concurrent Practical Sessions

Hydra Group A – Galliot

Mouse Group B – Behringer

20:00 – 22:00 Dinner Roundtable

Ida Chow, Society for Developmental Biology, USA

Teaching Developmental Biology

Monday – 11/8/10

7:45 Bus from Apart Hotel Principado de Asturias to Univ. de Chile

8:30 – 11:30 Concurrent Practical Sessions

Drosophila Group B – Spradling, Glavic

Zebrafish Group A – Allende, Yin, Schneider, Loosli

11:30 Bus from Univ. de Chile to Univ. Católica

12:00 – 13:00 Katia del Rio-Tsonis, Miami University of Ohio, USA

Mechanism of chick retina regeneration

13:00 – 14:30 Lunch at Centro de Extensión Univ. Católica

14:30 – 17:00 Concurrent Practical Sessions

Salamander Group A1 – del Río-Tsonis, Tsonis

Axolotl Group A2 – Kragl

Holothuria Group B – García-Arrarás

17:00 – 17:30 Coffee break

17:30 – 20:00 Concurrent Practical Sessions

Hydra Group A – Galliot

Mouse Group B – Behringer

20:00 Dinner on your own

Tuesday – 11/9/10

- 7:45 Bus from Apart Hotel Principado de Asturias to Univ. de Chile
- 8:30 – 11:30 Concurrent Practical Sessions
Drosophila Group B – Spradling, Glavic
Zebrafish Group A – Allende, Yin, Schneider, Loosli
- 11:30 Bus from Univ. de Chile to Univ. Católica
- 12:00 – 13:00 Alejandro Sánchez-Alvarado, University of Utah, USA
Regeneration in Planaria
- 13:00 – 14:30 Lunch at Centro de Extensión Univ. Católica
- 14:30 – 17:00 Concurrent Practical Sessions
Planarian Group B – Sánchez-Alvarado
Planarian Group A – Sánchez-Alvarado
- 17:00 – 17:30 Coffee break
- 17:30 – 18:30 Alvaro Glavic, Universidad de Chile, Chile
Proliferation and apoptosis in the Drosophila wing
- 18:30 – 19:30 Ken Poss, Duke University, USA
Heart and fin regeneration in zebrafish
- 19:30 – 21:00 Poster Session I

Wednesday – 11/10/10

- 7:45 Bus from Apart Hotel Principado de Asturias to Univ. de Chile
- 8:30 – 11:30 Concurrent Practical Sessions
Drosophila Group B – Spradling, Glavic
Zebrafish Group A – Allende, Yin, Schneider, Loosli
- 11:30 Bus from Univ. de Chile to Univ. Católica
- 12:00 – 13:00 Kristen Kroll, Washington University, USA
Mouse and Xenopus cmbryonic stem cells – a comparative study
- 13:00 – 14:30 Lunch at Centro de Extensión Univ. Católica
- 14:30 – 17:00 Concurrent Practical Sessions
Planarian Group B – Sánchez-Alvarado
Planarian Group A – Sánchez-Alvarado
- 17:00 – 17:30 Coffee break
- 17:30 – 18:30 Joachim Wittbrodt, EMBL, Heidelberg, Germany
TBA

- 18:30 – 19:30 Elly Tanaka, Max Planck Inst, Germany
Toward understanding tissue and positional identity of regenerating limbblastema
- 19:30 – 21:00 Poster Session II

Thursday – 11/11/10

- 8:30 – 9:30 Jonathan Slack, University of Minnesota, USA
Tail regeneration in Xenopus tadpoles
- 9:30 – 10:30 Janet Rossant, Hospital for Sick Children, Canada
Stem Cells and early lineage development
- 10:30 – 11:00 Coffee break
- 11:00 – 12:00 Philip Benfey, Duke University, USA
Development rooted in interwoven networks
- 12:00 – 12:30 Awards and Concluding Remarks
- 12:30 Lunch and Departure to LASDB 5th International Meeting

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Contributions

Company of Biologists, UK – *Development; Disease Models & Mechanisms*