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A Systems Biology Approach to Understanding Mechanisms of Organismal Evolution

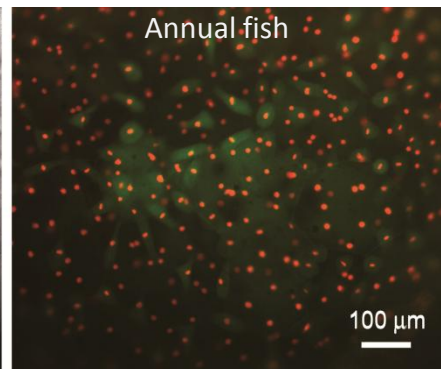
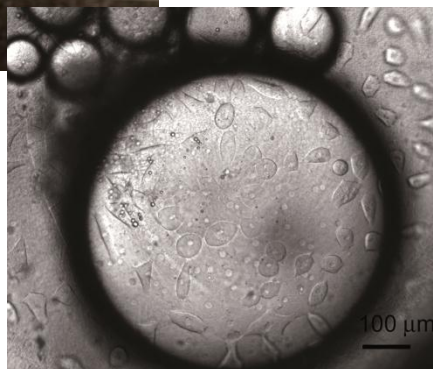
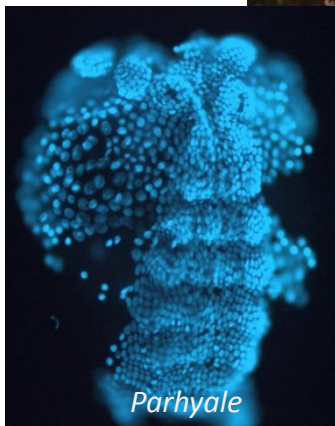
Satellite Short Course of the Sixth International Meeting of the Latin American Society for Developmental Biology

Universidad de la República & Institut Pasteur de Montevideo

Montevideo, Uruguay
April 16—25, 2012



PALMER
Visión tecnológica



A Systems Biology Approach to Understanding Mechanisms of Organismal Evolution

*Satellite Short Course of the VI International Meeting of the
Latin American Society for Developmental Biology*

Facultad de Ciencias - Universidad de la República

Institut Pasteur de Montevideo

Montevideo, Uruguay

April 16-25, 2012

Organized by:

Society for Developmental Biology

<http://www.sdbonline.org>

Latin American Society for Developmental Biology

<http://lasdbbiology.ning.com>

Organizers:

Mike Levine, University of California, Berkeley

Ida Chow, Society for Developmental Biology

Nibia Berois, Universidad de la República

Flavio Zolessi, Universidad de la República

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DAILY PROGRAM

Places: FC= Facultad de Ciencias; IP= Institut Pasteur de Montevideo; CE= Instituto de Investigaciones Biológicas Clemente Estable; Inf.= informatics room; 305, 307 and T04= teaching labs at FC.
All talks at Facultad de Ciencias will be in Salón de Seminarios 1, and at Pasteur, in Salón de Actos.

Day 1 (Monday 16/4)

| | | |
|-------------|----------|---|
| 13-16 | FC | Registration |
| 16-17 | FC | TALK: Animal care and use (Ida Chow) |
| 17-17:30 | FC | Welcome remarks |
| 17:30-18:30 | FC | TALK: Developmental biology in annual fish: special features and egg envelope proteins genes (Nibia Berois) |
| 18:30-19:30 | FC | TALK: Gene regulatory networks in plant roots (Siobhan Brady) |
| 19:30-21:30 | FC, Hall | Students poster session, 1-15 Opening reception |

Day 2 (Tuesday 17/4)

| | | |
|-------------|---------|--|
| 9-10 | IP | TALK: Evolution of Arthropod Appendages (Nipam Patel) |
| 10-11 | IP | TALK: The current state of evolutionary theory (Enrique Lessa) |
| 11-11:30 | IP | Coffee break |
| 11:30-13:30 | IP | PRACT: Arthropods I (N. Patel) Group B |
| | FC, Inf | PRACT: Regulatory networks I (S. Brady) Group A |
| 13:30-14:30 | IP | Lunch |
| 14:30-17:30 | IP | PRACT: Arthropods I (N. Patel) Group A |
| | FC, Inf | PRACT: Regulatory networks I (S. Brady) Group B |
| 17:30-18:00 | IP | Coffee break |
| 18:00-21:00 | IP | PRACT: Arthropods II (N. Patel) Group B |
| | FC, Inf | PRACT: Regulatory networks II (S. Brady) Group A |

Day 3 (Wednesday 18/4)

| | | |
|-------------|---------|---|
| 9-11 | IP | PRACT: Arthropods II (N. Patel) Group A |
| | FC, Inf | PRACT: Regulatory networks II (S. Brady) Group B |
| 11-11:30 | IP | Coffee break |
| 11:30-13:30 | IP | PRACT: Arthropods III (N. Patel) Group B |
| | FC, Inf | PRACT: Regulatory networks III (S. Brady) Group A |
| 13:30-14:30 | IP | Lunch |
| 14:30-17:30 | IP | PRACT: Arthropods III (N. Patel) Group A |
| | FC, Inf | PRACT: Regulatory networks III (S. Brady) Group B |
| 17:30-18:00 | IP | Coffee break |
| 18:00-19:00 | FC | TALK: Theoretical approaches for the analysis of metabolic and signaling networks (Luis Acerenza) |
| 19:00-21:00 | FC | Students poster session, 16-30 Refreshments |

Day 4 (Thursday 19/4)

| | | |
|-------------|---------|---|
| 9-10 | FC | TALK: Urodeles as models of Tissue Regeneration (Panagiotis Tsonis) |
| 10-11 | FC | TALK: Retina repair strategies are evolutionary conserved in vertebrates (Katia Del Río-Tsonis) |
| 11-11:30 | IP | Coffee break |
| 11:30-12:30 | IP | TALK: Postnatal development of the brain of <i>Gymnotus omarorum</i> : unveiling the cellular components of brain proliferating zones and their fate by temporal halogenated thymidine analog discrimination (María Castelló) |
| 12:30-13:30 | IP | ROUNDTABLE: Scientific Publishing |
| 13:30-14:30 | IP | Lunch |
| 14:30-17:30 | IP | PRACT: Urodeles I (K. Del Río-Tsonis/P. Tsonis) Group B |
| | FC, Inf | PRACT: Systems biology I (L. Acerenza) Group A |
| 17:30-18:00 | IP | Coffee break |
| 18:00-21:00 | IP | PRACT: Urodeles I (K. Del Río-Tsonis/P. Tsonis) Group A |
| | FC, Inf | PRACT: Systems biology I (L. Acerenza) Group B |

Day 5 (Friday 20/4)

| | | |
|-------------|----|--|
| 9-9:45 | IP | TALK: The chick as an experimental system (Claudio Stern) |
| 9:45-10:30 | IP | TALK: Evolution of sensory systems (Andrea Streit) |
| 10:30-11:15 | IP | TALK: Evolution of extraembryonic tissues and the amniote/anamniote divide (Claudio Stern) |
| 11:15-11:30 | IP | Coffee break |
| 11:30-13:30 | IP | PRACT: Chick embryo, demonstration (C. Stern/A. Streit) Group A and B |
| 13:30-14:30 | IP | Lunch |
| 14:30-17:30 | IP | PRACT: Urodeles II (K. Del Río-Tsonis/P. Tsonis) Group B |
| | IP | PRACT: Chick embryo (C. Stern/A. Streit) Group A |
| 17:30-18:00 | IP | Coffee break |
| 18:00-21:00 | IP | PRACT: Urodeles II (K. Del Río-Tsonis/P. Tsonis) Group A |
| | IP | PRACT: Chick embryo (C. Stern/A. Streit) Group B |

Day 6 (Saturday 21/4)

| | | |
|-------------|---------|---|
| 9-10 | IP | PRACT: Chick embryo (C. Stern/A. Streit) Group A and B |
| 10-13:30 | IP | PRACT: Chick embryo (C. Stern) Group B |
| | FC, Inf | PRACT: Biotapestry (A. Streit) Group A |
| 13:30-14:30 | FC | Lunch |
| 14:30-17:30 | IP | PRACT: Chick embryo (C. Stern/A. Streit) Group A and B |
| 17:30-18:00 | IP | Coffee break |
| 18:00-21:00 | IP | PRACT: Chick embryo (C. Stern) Group A |
| | FC, Inf | PRACT: Biotapestry (A. Streit) Group B |

Day 7 (Sunday 22/4)

| | | |
|-------------|---------|---|
| 10:30-13:30 | CE | PRACT: Electric fish (M. Castelló) Group A |
| | FC, 307 | PRACT: Annual fish (N. Berois) Group B |
| 13:30-14:30 | FC | Lunch |
| 14:30-17:30 | CE | PRACT: Electric fish (M. Castelló) Group B |
| | FC, 307 | PRACT: Annual fish (N. Berois) Group A |
| 17:30-18:00 | IP | Coffee break |
| 18:00-19:00 | FC | TALK: Planarians as a model system for the study of regeneration (Alejandro Sánchez-Alvarado) |
| 19:00-20:00 | FC | TALK: Using the Brazilian opossum to study mammalian evolution (Yolanda Cruz) |

Day 8 (Monday 23/4)

| | | |
|-------------|---------|---|
| 9-10:15 | IP | PRACT: Regeneration in planaria I (A. Sánchez-Alvarado) Group B |
| | FC, 307 | PRACT: Marsupials (Y. Cruz) Group A |
| 10:15-10:30 | IP | Coffee break |
| 10:30-12:30 | IP | PRACT: Regeneration in planaria I (A. Sánchez-Alvarado) Group B |
| | FC, 307 | PRACT: Marsupials (Y. Cruz) Group A |
| 12:30-13:30 | IP | ROUNDTABLE: Ethics and education |
| 13:30-14:30 | IP | Lunch |
| 14:30-17:30 | IP | PRACT: Regeneration in planaria I (A. Sánchez-Alvarado) Group A |
| | FC, 307 | PRACT: Marsupials (Y. Cruz) Group B |
| 17:30-18:00 | IP | Coffee break |
| 18:00-19:00 | FC | TALK: Origin, evolution and development of the chordates (Billie Swalla) |
| 19:00-20:00 | FC | TALK: The marine annelid Platynereis: a new powerful model for organismal systems biology (Detlev Arendt) |

Day 9 (Tuesday 24/4)

| | | |
|-------------|---------|--|
| 9-10:15 | IP | PRACT: Annelids I (D. Arendt) Group A |
| | FC, 307 | PRACT: Regeneration in planaria II (A. Sánchez-Alvarado) Group B |
| 10:15-10:30 | IP | Coffee break |
| 10:30-12:30 | IP | PRACT: Annelids I (D. Arendt) Group A |
| | FC, 307 | PRACT: Regeneration in planaria II (A. Sánchez-Alvarado) Group B |
| 12:30-13:30 | IP | TALK: <i>Hydra</i> a model system for stem cell, regeneration and aging studies (Brigitte Galliot) |
| 13:30-14:30 | IP | Lunch |
| 14:30-17:30 | IP | PRACT: Regeneration in planaria II (A. Sánchez-Alvarado) Group A |
| | FC, T04 | PRACT: Insects (R. Rivera-Pomar) Group B |
| 17:30-18:00 | IP | Coffee break |
| 18-21 | IP | PRACT: Annelids I (D. Arendt) Group B |
| | FC, T04 | PRACT: Insects (R. Rivera-Pomar) Group A |

Day 10 (Wednesday 25/4)

| | | |
|-------------|---------|---|
| 9-10:15 | IP | PRACT: Annelids II (D. Arendt) Group A |
| | FC, 305 | PRACT: Primitive chordates (B. Swalla) Group B |
| 10:15-10:30 | IP | Coffee break |
| 10:30-12:30 | IP | PRACT: Annelids II (D. Arendt) Group A |
| | FC, 305 | PRACT: Primitive chordates (B. Swalla) Group B |
| 12:30-13:30 | IP | TALK: How do transcription factors find their target genes in living cells (Walter Gehring) |
| 13:30-14:30 | IP | Lunch |
| 14:30-17:30 | IP | PRACT: Annelids II (D. Arendt) Group B |
| | FC, 305 | PRACT: Primitive chordates (B. Swalla) Group A |
| 17:30-18:30 | IP | Closing remarks |

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