

Concepts and Model Organisms in Regenerative Biology

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

November 2 –11, 2010.

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and Universidad de Chile, Santiago, Chile

Organizers: Richard Harland, Ida Chow, Juan Larrain, Miguel Allende

History

In 2003, the Latin American Society of Developmental Biology (LASDB), led by Roberto Mayor, then at the University of Chile, organized its First International Meeting in Valle Nevado, Chile. Just before the meeting, the LASDB offered a short laboratory course to a number of student participants from Latin American institutions taught by some of the invited speakers. Both meeting and practical course were remarkably successful and provided additional opportunity for the students to learn new lab protocols and to interact with the speakers.

In 2005, at the request of local organizer José Xavier Neto the second satellite short course of the Second International Meeting of LASDB, *Model Organisms and Innovative Approaches in Developmental Biology* was organized jointly by the Society for Developmental Biology (SDB) and LASDB and held in Juquehy, Brazil. Ruth Lehmann (SDB President 2004-2005), José Xavier Neto (University of São Paulo), Ida Chow (SDB) and Roberto Mayor (LASDB President 2005) were the organizers of this course which received major funding from the National Science Foundation's (NSF and US Department of Energy) Pan American Advanced Studies Institute (PASI) program. Additional support came from the National Institute of Child and Human Health and Development (NICHD/NIH, USA), Fundação de Amparo à Pesquisa do Estado de São Paulo (FAPESP, Brazil), Conselho Nacional de Pesquisa (CNPq, Brazil), International Society of Developmental Biologists (ISDB) and SDB (including proceedings from *Developmental Biology*). Fifteen students from Latin American institutions and fifteen US-based students were selected for this course. The final program with links to lectures and protocols is available at: <http://www.sdbonline.org/archive/ShortCourse/course.htm>.

In 2008, the third course was held at Instituto Leloir in Buenos Aires, Argentina, organized by Eric Wieschaus (SDB President 2007-2008), Pablo Wappner (Instituto Leloir) and Ida Chow (SDB). *Frontiers in Developmental Biology: Concepts, Techniques and Model Organisms* was designated a PASI course as it was primarily supported by this NSF-Dept of Energy (USA) program. It was followed by LASDB's 4th International Meeting. Additional support was provided by NICHD/NIH (USA), UNO-Biolac and Instituto Leloir. The lectures and lab protocols are found on the short course website: <http://www.sdbonline.org/2008ShortCourse/course.htm>

This year SDB and LASDB will jointly organize the fourth short course, to take place just before the 5th International Meeting of LASDB and it will be on *Concepts and Model Organisms in Regenerative Biology*. The organizers of this short course to be held at Pontificia Universidad Católica de Chile, with zebrafish lab sessions held at Universidad de Chile, Santiago, Chile are: Richard Harland, SDB President 2009-2010, Juan Larrain, PUC, Ida Chow, SDB Executive Officer and Miguel Allende, UChile. Major funding is provided by a [PASI](#) grant (OISE-0921489) from [NSF](#). Additional support is from: [CARE](#) (Center for Aging and Regeneration-Chile), [CGC](#) (Center for Genomics of the Cell-Univ de Chile) and [ICM](#) (Iniciativa Científica Milenio).

Aims of the 2010 Short Course

The main objectives of this short course are:

- To train a cadre of young investigators in the Americas eager to use innovative approaches and a variety of traditional and emerging model organisms to expand the knowledge base and understanding of regenerative and developmental processes.
- To foster senior and junior investigators in the Western Hemisphere to a culture of borderless cooperation in mutually supportive alliances that will further advances in the field.
- To provide an open forum for discussion of current topics in regenerative and developmental biology relevant to science policy, education and health in the participating countries and this continent.

The course will provide a unique opportunity for American students to learn first-hand how research is conducted in Latin America and to appreciate the chances available for scientific investigation using the biodiversity in the region. The course will examine recent advancements in studies of regenerative processes and discuss their parallel with developmental processes. Top investigators (established and new experts in respective areas) will discuss the strength, weaknesses and state-of-the-art applications of model organisms, both the mainstream, e.g. *Drosophila*, zebrafish, *Xenopus*, mouse; and emerging, such as planaria, hydra and sea cucumber (*Holoturia*). Roundtables on ethics, teaching and research around regenerative and developmental biology will stimulate the students to take a broader perspective on the implications in the society and their own careers.