# PROGRAM

## LAZEN International Zebrafish and Medaka Conference, 29 March – 02 April 2020- Cusco, Perú

### Day 1 - SUNDAY 29 March – Paraninfo UNSAAC and Cusco Municipal Theater

09:00 – 15:00 OPTIONAL: Tour of Cusco's nearby archaeological sites

12:00 – 17:00 Registration (Paraninfo UNSAAC)

17:00 – 17:30 Welcome to LAZEN Perú 2020 (at the Municipal Theater)

**17:30 – 18:10** **** PUBLIC OPENING LECTURE:** *Using Human Patients as a Platform for Discovery of Novel Developmental Genes* ******
**Monte Westerfield, University of Oregon, USA**

18:30 – 21:00 Welcome reception - musical show by PromPerú

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### Day 2 - MONDAY 30 March – Paraninfo UNSAAC

08:00 – 09:00 Registration (ongoing all day)
09:00 – 09:50 Career Development Workshop / Technical Talks (concurrent)
09:50 – 10:10 LAZEN Practical Course Presentations

10:10 – 10:30 Coffee break
**10:30 – 11:10** **** THE MOD KEYNOTE LECTURE:** *Establishment of Oocyte Polarity in Vertebrates* ******
**Mary Mullins, University of Pennsylvania, USA**

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## ORAL SESSION 1: GAMETOGENESIS AND FERTILIZATION

*TBA, Chair, Inst*

11:10 – 11:30 Han Wang, Soochow University, China
***Circadian orchestration of spermatogonial differentiation and fertilization through retinoic acid signaling***

11:30 – 11:45 Minoru Tanaka, Nagoya University, Japan
***How do germline stem cells initiate oogenesis in Medaka? - the mechanism of sexual fate decision in germ cells***

11:45 – 12:00 Juan Fernandino, Instituto Tecnológico de Chascomús, Argentina
***Embryonic germ stem cell type II proliferation is crucial to reproductive success in both sexes and mating behavior of male***

12:00 – 12:15 Ricardo Fuentes, Universidad de Concepción, Chile
***A zebrafish large-scale forward genetic screen identifies Spotty as a regulator of vertebrate centrosome elimination***

12:15 – 12:30 Noriyoshi Sakai, National Institute of Genetics, Japan
***Regulation of the ribosome by a germ granule component, Meioc, for differentiation of spermatogonial stem cells in zebrafish***

12:30 – 14:00 Lunch break

## ORAL SESSION 2: GASTRULATION AND NEURULATION

*TBA, Chair, Inst*

14:00 – 14:15 Miguel Concha, Universidad de Chile, Chile
***Apical tethers stemmed from epithelial delamination guide the movement of organ progenitors in zebrafish***

14:15 – 14:30 Thomas Dickmeis, Karlsruhe Institute of Technology, Germany
***Regulation of cholesterol biosynthesis by the glucose-sensing transcription factor MondoA is required for zebrafish epiboly***

14:30 – 14:45 Javier Méndez, Universidad Nacional Autónoma de México, Mexico
***Reactive oxygen species participate in the regulation of E-cadherin dynamics and cell motility in zebrafish epiboly***

14:45 – 15:00 Lucía Veloz, Universidad de la República, Uruguay
***Role of MARCKS-Like 1a protein during zebrafish neurulation***

**15:00 – 15:40** **** KEYNOTE LECTURE:** *Epigenetic Changes in the Genome during Early Development of Medaka* ******
**Hiroyuki Takeda, University of Tokyo, Japan**

15:40 – 16:00 Coffee break

**16:00 – 16:40** **** KEYNOTE LECTURE:** *Mechanisms of Gastrulation in Zebrafish* ******
**Lilianna Solnica-Krezel, Washington University in St. Louis, USA**

**ORAL SESSION 3: MORPHOGENESIS, PATTERNING AND ORGANOGENESIS**
*TBA, Chair, Inst*

16:40 – 16:55 Kiyoshi Naruse, National Institute for Basic Biology, Japan
***What are the leucophores in Medaka?***

16:55 – 17:10 Paola Lepanto, Institut Pasteur Montevideo, Uruguay
***Studying cilia-associated factors that affect adipose tissue development in zebrafish larvae***

17:10 – 17:25 Lázaro Centanin, Heidelberg University, Germany
***Interplay of lineages during pattern formation and stem-cell driven growth***

17:25 – 17:40 Toru Kawanishi, University of Tokyo, Japan
***Coordinated growth of multiple tissues during zebrafish body axis elongation***

17:40 – 18:10 Flash Talks

18:30 – 21:00 Evening mixer at the Casa de la Cultura Museum- musical show by the Cusco Municipality

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## Day 3 -TUESDAY 31 March – Paraninfo UNSAAC

09:00 – 10:30 Poster session 1 (coffee/snacks served at 10:00)

**10:30 – 11:10** **** THE EMBO KEYNOTE LECTURE:** Biological Robustness: genetic compensation and transcriptional adaptation ******
**Didier Stainier, Max Planck Institute for Heart and Lung Research, Germany**

**ORAL SESSION 4: GENE EXPRESSION AND REGULATION**
*TBA, Chair, Inst*

11:10 – 11:30 Robert Geisler, Karlsruhe Institute of Technology, Germany
***Archiving and phenotyping of zebrafish lines at the European Zebrafish Resource Center (EZRC)***

11:30 – 11:45 Juan Ramón Martínez-Morales, Centro Andaluz de Biología del Desarrollo, Spain
***Analysis of the genetic programs activated by Yap during early morphogenesis in teleosts***

11:45 – 12:00 Miguel Moreno-Mateos, Centro Andaluz de Biología del Desarrollo, Spain
***CRISPR-Cas13d induces efficient mRNA knock-down in animal embryos***

12:00 – 12:15 Ariel Bazzini, Stowers Institute for Medical Research, USA
***Translation of small open reading frames in 3' UTRs enhances translation of their canonical open reading frames***

12:15 – 12:30 Diana Castañeda Cortés, Instituto Tecnológico de Chascomús, Argentina
***Crossover between stress and thyroid hormone axes in stress-induced sex reversal***

12:30 – 14:00 Lunch break

**ORAL SESSION 5: GENETICS, GENOMICS AND EVOLUTION**
*TBA, Chair, Inst*

14:00 – 14:15 Miguel Allende, Universidad de Chile, Chile
***Telling a tale of tails: The Hox13 genes and the specification of the posterior vertebrae and tail in the zebrafish***

14:15 – 14:30 Lucía Franchini, Instituto de Investigaciones en Ingeniería Genética y Biología Molecular, Argentina
***Regulatory regions and human evolution: linking mutations and phenotypic effects***

14:30 – 14:45 Joaquín Letelier, Universidad Mayor, Chile
***Shaping fins and limbs: deeply conserved developmental programs***

14:45 – 15:00 Nicolas Rohner, Stowers Institute for Medical Research, USA
***Metabolic adaptation and resilience in cavefish***

**15:00 – 15:40** **** KEYNOTE LECTURE:** Wild sex, hot sex: Mechanisms of sex determination in natural zebrafish ******
**John Postlethwait, University of Oregon, USA**

15:40 – 16:00 Coffee break

**16:00 – 16:40** **** KEYNOTE LECTURE:** Neural identity, connectivity and activity of a left-right asymmetric pathway in the zebrafish brain ******
**Marnie Halpern, Dartmouth College, USA**

## ORAL SESSION 6: HEART, BLOOD AND IMMUNITY

*TBA, Chair, Inst*

16:40 – 16:55 Nadia Mercader, University of Bern, Switzerland
***Interplay between cardiac regeneration and fibrosis regression in the zebrafish***

16:55 – 17:10 Ching-Ling Lien, Children's Hospital Los Angeles, USA
***Heterogeneous pdgfrbeta+ cells regulate coronary vessel development and revascularization during heart regeneration in zebrafish***

17:10 – 17:25 Daniel Cifuentes, Boston University, USA
***Uncovering the role of microRNAs in canalizing cell fate determination during hematopoiesis***

17:25 – 17:40 Ronald B. Walter, Texas State University, USA
***The Medaka (Oryzias latipes) inflammation and immune stress response induced by fluorescent light does not occur upon sunlight exposure and is amplified, but not dependent, on prompts from the eye***

17:40 – 18:00 Herman Spaink, Leiden University, The Netherlands
***How the microbiome controls the host innate immune system***

19:00 – 20:30 Concert at the Cathedral by the Cusco Symphony Orchestra

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## Day 4 - WEDNESDAY 1 April

09:00 – 10:30 Poster session 2 (coffee/snacks served at 10:00)

**10:30 – 11:10** **** KEYNOTE LECTURE:** Vision to Action: How zebrafish detect and catch prey ******
**Herwig Baier, Max Planck Institute of Neurobiology**

**ORAL SESSION 7: NEURAL DEVELOPMENT AND PHYSIOLOGY**
*TBA, Chair, Inst*

11:10 – 11:30 Koichi Kawakami, National Institute of Genetics, Japan
***The Tol2 transposon technology and its applications to study functional neuronal circuits in zebrafish***

11:30 – 11:50 Kristen Kwan, University of Utah, USA
***Migratory neural crest regulates optic cup invagination by providing crucial extracellular matrix factors***

11:50 – 12:10 Flavio Zolessi, Universidad de la República, Uruguay
***Brothers but different: cell polarity and the morphogenesis of retinal ganglion cells and photoreceptors***

12:10 – 12:30 David R. Hyde, University of Notre Dame, USA
***Comparative transcriptomic and epigenomic approaches reveal mechanisms that regulate zebrafish Müller glia reprogramming and neuronal regeneration***

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12:30 – 14:00 Lunch break

**ORAL SESSION 8: BRAIN DISEASE AND BEHAVIOR**

*TBA, Chair, Inst*

14:00 – 14:20 Edward A. Burton, University of Pittsburgh, USA
***Unbiased chemical modifier screens in a zebrafish model in vivo reveal novel small molecule modifiers of tauopathy***

14:20 – 14:40 Allan Kalueff, South West University, China
***Biological psychiatry of zebrafish***

14:40 – 14:55 Jaquelinne Pinheiro-Da-Silva, Universidade Federal do Rio Grande do Norte, Brazil
***Zebrafish as an animal model for behavioral studies of fetal alcohol spectrum disorders***

14:55 – 15:10 Laura Mazzitelli-Fuentes, Centro Atómico Bariloche, Argentina
***Training in a clue-guided maze increases adult neurogenesis in specific pallial circuits***

**15:10 – 15:50** **** KEYNOTE LECTURE:** Seeing is Believing: Using Zebrafish to Decipher the Cellular and Molecular Mechanisms of Peripheral Nerve Regeneration ******

**Michael Granato, University of Pennsylvania, USA**

15:50 – 16:10 Coffee break

**16:10 – 16:50** **** THE IUBMB KEYNOTE LECTURE:** Imaging Subcellular Dynamics from Molecules to Multicellular Organisms ******

**Tom Kirchhausen, Harvard University, USA**

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**ORAL SESSION 9: CANCER & IMMUNITY**
*TBA, Chair, Inst*

16:50 – 17:20 Manfred Schartl, University of Würzburg, Germany
***Identifying tumor modifier genes and drugs with the transgenic medaka melanoma system***

17:20 – 17:35 Alicia McConnell, Harvard University, USA
***An encompassing precursor lesion attractor state precedes neural crest reactivation in melanoma***

17:35 – 17:50 Carmen G. Feijoo, Universidad Andrés Bello, Chile
***T cell-antigen presenting cell interaction in the gut of medaka fish take place at specific areas of the mucosa and is regulated by Ccl25-Ccr9 signaling pathway***

17:50 – 18:05 Violeta Kallens, Universidad de Chile, Chile
***Zebrafish as a model to study interaction between tumor-associated neutrophils and cancer cells***

**18:05 – 18:35** **** THE ICGEB KEYNOTE LECTURE:** Zebrafish as model for studying gene expression control during embryonic development ******
**Nora Calcaterra, Universidad Nacional de Rosario, Argentina**

18:35 – 18:40 Poster presentation prizes

20:00 – 24:00 Farewell party (venue pending confirmation)

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## Day 5 - THURSDAY 2 April

09:00 – 10:30 Zebrafish & Medaka - community sessions / Technical talks (concurrent)

10:30 – 10:50 Coffee break

**10:50 – 11:30** **** CLOSING LECTURE:** TBA ******
**Jochen Wittbrodt, Heidelberg University, Germany**

11:30 – 12:00 Concluding remarks and farewell

14:00 – 18:00 OPTIONAL: Walking tours of Cusco (museums, markets, churches)