WORKSHOPS **CURRENT TRENDS** $\mathbf{2019}$ **IN BIOMEDICINE**



FROM GENES TO ORGANISMS: TRANSCRIPTIONAL **CONTROL IN DÉVELOPMEN AND DISEASE**



SCOPE

Complex organisms originate through intricate gene expression patterns that control developmental processes in space and time. Such patterns are the result of multiple regulatory layers that merge with an exquisite precision. On the one hand, the nuclear environment of the cell imposes a specific transcriptional response. On the other hand, external signals, such as morphogen gradients or cell-to-cell interactions, are sensed and propagated. Such processes converge to create unique cellular identities that are the basis of developmental growth and differentiation.

The aim of this workshop is to bring together internationally recognized scientists with different and multidisciplinary expertise in the field of transcriptional regulation. The proposed program aims to cover an ample variety of aspects, such as 3D chromatin organization and the regulatory non-coding genome. The combination of in vivo research models as well as non-model organisms will provide a deep perspective on how regulatory variation lies at the basis of human pathogenesis and molecular evolution. A special emphasis will be put on emerging single-cell technologies, which are expected to sustain the transition from population-based to individual cell studies. The combination of such aspects allows a comprehensive overview that goes from fundamental principles of transcription in individual cells to their ultimate biological significance on the formation of living organisms.

FORMAT OF THE WORKSHOP

The workshop will bring together a maximum of 15 speakers and 35 participants, to form a group of around 50 people. The scientific programme will start in the morning of Monday, October 28th, and will end around noon on Wednesday, October 30th. Ample time for informal discussion will be reserved. Participants will be invited to present a poster.

VENUE OF THE WORKSHOP

SPEAKERS

Laurie A. Boyer. Departments of Biology and Biological Engineering; Massachusetts Institute of Technology (MIT). Cambridge, MA, USA.

Denis Duboule. Department of Genetics and Evolution, University of Geneva, Sciences III, Geneva / School of Life Sciences, Ecole Polytechnique Fédérale de Lausanne (EPFL), Lausanne; Switzerland.

Eileen E. M. Furlong. Genome Biology Unit, European Molecular Biology Laboratory (EMBL). Heidelberg, Germany.

José Luis Gómez-Skarmeta. Centro Andaluz de Biología del Desarrollo (CABD), Consejo Superior de Investigaciones Científicas/Universidad Pablo de Olavide. Sevilla, Spain.

Douglas R. Higgs. MRC Molecular Haematology Unit, MRC Weatherall Institute of Molecular Medicine, Radcliffe Department of Medicine, University of Oxford. Oxford, UK.

Darío G. Lupiáñez. Epigenetics and Sex Development Group, Berlin Institute for Medical Systems Biology, Max-Delbrück Center for Molecular Medicine. Berlin-Buch, Germany.

Susan E. Mango. Biozentrum, University of Basel. Basel, Switzerland.

Leonid A. Mirny. Institute for Medical Engineering and Science and Department of Physics, Massachusetts Institute of Technology (MIT). Cambridge, MA, USA.

Stefan Mundlos. Max Planck Institute for Molecular Genetics, RG Development & Disease / Institute for Medical and Human Genetics, Charité Universitätsmedizin Berlin. Berlin, Germany.

David L. Stern. Janelia Research Campus, Howard Hughes Medical Institute. Ashburn, VA, USA.

Barbara Treutlein. ETH Zürich, Department of Biosystems Science and Engineering. Basel, Switzerland.

Axel Visel. Environmental Genomics and Systems Biology Division, Lawrence Berkeley National Laboratory, Berkeley / U.S. Department of Energy Joint Genome Institute, Walnut Creek / School of Natural Sciences, University of California Merced, Merced; CA, USA.

Patricia J. Wittkopp. Department of Ecology and Evolutionary Biology / Department of Molecular, Cellular and Developmental Biology; University of Michigan. Ann Arbor, MI, USA.

THE EMBO KEYNOTE LECTURE

Christiane Nüsslein-Volhard. Max-Planck-Institut für Entwicklungsbiologie. Tübingen, Germany.

SUPPORTED BY:





ORGANIZED BY:

Eileen E. M. Furlong Heidelberg, Germany.

Darío G. Lupiáñez Berlin, Germany.

Axel Visel Berkeley, CA, USA.

Baeza, Spain 28th-30th October 2019

Deadline: 6th September 2019

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More information and application: https://www.unia.es/biomedicine workshops.biomed@unia.es

The workshop will be held in Baeza, at the "Sede Antonio Machado", a XVII century building turned into a Conference Centre of the Universidad Internacional de Andalucía (UNIA). This Seat includes a residence, where participants will be accommodated. Baeza is a World Historic Heritage town, renowned for its Renaissance and Gothic buildings.

Joanna Wysocka. Department of Chemical and Sys tems Biology / Department of Developmental Biology / Howard Hughes Medical Institute; Stanford University School of Medicine. Stanford, CA, USA.

Robert P. Zinzen. Berlin Institute for Molecular and Systems Biology, Max Delbrück Center for Molecular Medicine. Berlin, Germany.

