



Epigenetics, aging and cancer



Conferencias
**Severo
Ochoa**
SEBBM · FCySO

Gijón
JUNE 26th – 27th 2025

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Convention
Bureau



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<https://sebbm.es/noticias/iii-conferencia-severo-ochoa-epigenetica-envejecimiento-y-cancer//>

INTRODUCTION

The conference will explore the complex interplay between epigenetic modifications, the aging process, and cancer development. Aging is associated with widespread epigenetic changes, including alterations in DNA methylation patterns, histone modifications, and chromatin structure, which can influence gene expression and contribute to cellular dysfunction. These changes not only impact normal aging but also play a crucial role in cancer initiation and progression.

Leading experts in the field will discuss recent discoveries on how epigenetic drift, loss of regulatory control, and environmental factors contribute to both aging and tumorigenesis. The conference will also highlight emerging strategies for targeting epigenetic alterations in age-related diseases and cancer, including novel therapeutics and biomarkers for early detection. By bridging the fields of aging research and cancer biology, this event aims to provide new insights into potential interventions that could improve healthspan and cancer treatment outcomes.

We are confident that this meeting will be an excellent occasion to foster fruitful scientific interactions and discussions. We look forward to seeing you all in Gijón for the 3rd Severo Ochoa Conference!

COMMITTEES

ORGANIZING

- Mario F. Fraga (CINN-CSIC, IUOPA, ISPA)
- Ana Gutiérrez (Universidad de Oviedo, IUOPA, ISPA)
- Agustín F. Fernández (CINN-CSIC, IUOPA, ISPA)

SCIENTIFIC

- Xose Puente (Universidad de Oviedo, IUOPA, ISPA)
- Juan Ramón Tejedor (CINN-CSIC, IUOPA, ISPA)
- Jose María Pérez Freije (Universidad de Oviedo, IUOPA, ISPA)



PRELIMINARY AGENDA

This provisional programme displays invited speakers and lecturers.

In addition to invited speakers, short talks will be selected from submitted abstracts. All attendees, particularly researchers in the early stages of their career, are invited to submit a are invited to submit an abstract for consideration as poster or oral communication.

Epigenomics, Aging and Cancer

Thursday, June 26, 2025

09:00 Registration and poster setting. Posters will be on during the whole meeting.

11:30 Welcome from the organizers, FCySO, SEBBM and academic partners

12:00 **Opening lecture. Steve Horvath, Altos Lab, San Diego, EEUU**

13:00 **Lunch break**

14:00 **Session I | Aging Epigenetics**

Sara Hägg, Karolinska Institutet, Sweden

María Blasco, CNIO, Madrid, Spain

Wolfgang Wagner, RWTH Aachen University Medical School, Germany

José Vicente Sánchez Mut, Instituto Neurociencias Alicante (CSIC), Spain

15:30 **Coffee break | Group Picture**

16:30 **Session II: Cancer Epigenetics**

Stephan Beck, University College London, UK

José Ignacio Martín Subero, IDIBAPS, Spain

Sandra Blanco, CIC Salamanca, Spain

Pablo Menéndez, Josep Carreras Leukemia Research Institute, Spain

18:00 **Flash talk presentations and poster session**

20:30 **Conference dinner (TBD)**



PRELIMINARY AGENDA

Epigenomics, Aging and Cancer

Friday, June 27, 2025

09:00 **Session III. Epigenetics: from bench to clinic**

Christoph Bock, Institute of Artificial Intelligence, Austria

Manel Esteller, Josep Carreras Leukemia Research Institute, Spain

Pedro Moral Quirós, Universidad de Oviedo, Spain

Biola Javierre, Josep Carreras Leukemia Research Institute, Spain

10:30 **Coffee break**

11:00 **Session IV. Computational analysis in the multiomic era**

Andrew E. Teschendorff, Shanghai Institute of Nutrition and Health, China

Marta Melé, Barcelona Supercomputing Center, Spain

Raúl Fernández Pérez, Universidad Complutense de Madrid, Spain

Free slot for conference attendees (TBD)

12:30 **Concluding remarks, prizes and Farewell**

13:30 **Lunch**

15:00 **Departure**



INVITED SPEAKERS



Steve Horvath

Professor of Human Genetics and Biostatistics at University of California (USA). His research focuses on the intersection of epigenetic biomarkers of aging, genomics, epidemiology and comparative biology.



Biola María Javierre Martínez

Head of the Normal and Malignant Hematopoiesis research group at the Josep Carreras Leukaemia Research Institute (Spain). Her research is focused on the study of 3D chromatin interactions in cancer.



Sara Hägg

Professor at the Department of Medical Epidemiology and Biostatistics, Karolinska Institute (Sweden). PhD in Computational Biology. Her main research interest is human biological aging.



José Vicente Sánchez Mut

Head of the Functional Epigenomics of Aging and Alzheimer's Disease research group at the Neuroscience Institute of Alicante (Spain). His research group studies epigenomic processes in the brain during aging and in age-related diseases.



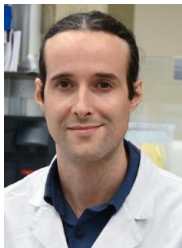
Raúl Fernández Pérez

Professor at the Complutense University of Madrid (Spain). His research focuses on the epigenomic changes that occur during aging and in response to external stimuli.



Wolfgang Wagner

Director of the Institute for Stem Cell Biology at RWTH Aachen University Medical School (Germany). He is mainly interested in the molecular and epigenetic effects of aging, replicative senescence and malignant transformation.



José Ignacio Martín Subero

Biomedical epigenomic group leader at the Barcelona Clinical Hospital (Spain). He currently focuses his research on the genetics and epigenetics of lymphoid neoplasms.



Sandra Blanco Benavente

Senior scientist at the CSIC Cancer Research Centre in Salamanca (Spain). She is currently studying the role of RNA post transcriptional modifications in cancer.



INVITED SPEAKERS



Marta Melé Messeguer

Group leader at the Life Sciences Department of the Barcelona Supercomputing Center (Spain). Her research focuses on the application of computational tools to understand how the human transcriptome is regulated in health and disease.



Christoph Bock

Principal Investigator at the CeMM Research Center for Molecular Medicine of the Austrian Academy of Sciences and Professor of Biomedical Informatics at the Medical University of Vienna (Austria). His research group focuses on studying epigenomic alterations in cancer.



Manel Esteller Badosa

Director of the Cancer Epigenetics Group at the Josep Carreras Leukaemia Research Institute (Spain). He is internationally recognized for his work in cancer and aging epigenetics.



María Blasco Marhuenda

Senior scientist at the Spanish National Cancer Research Centre (Spain). Expert in the study of telomeres, telomerase and their relationship with the aging process and cancer.



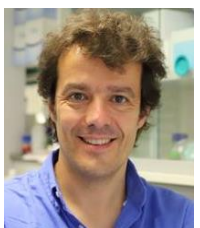
Pedro Moral Quirós

Ramón y Cajal researcher at the Department of Biochemistry and Molecular Biology, University of Oviedo (Spain). His research group studies genomic alterations in different types of cancer.



Andrew E. Teschendorff

Group leader in Computational Systems Epigenomics at the Chinese Academy of Sciences Shanghai Institute for Nutrition and Health (China). Expert in novel advanced statistical methods useful for tackling the outstanding challenges in cancer genomics and epigenomics.



Pablo Menéndez Buján

Head of the Stem Cell Biology, Developmental Leukemia, and Immunotherapy Group at the Josep Carreras Leukaemia Research Institute (Spain). His research focuses on the study of molecular alterations in pediatric leukemias.



Stephan Beck

Group leader of the Medical Genomics team at the University College London Cancer Institute. He is director of the Personal Genome Project UK, and serves on the advisory board of the Human Epigenome Project.



CONFERENCE VENUE



Laboral Ciudad de la Cultura is a monumental building in Gijón that offers unbeatable conditions for hosting all kinds of cultural activities in a magical setting, allowing visitors and congress attendees to enjoy an unparalleled experience in the Principality of Asturias.

Laboral Ciudad de la Cultura
C/ Luis Moya Blanco 261
33203 Gijón (Spain)



Congress sessions will be held in the **Painting Hall** of Laboral Ciudad de la Cultura. Housed on the first floor of the Theatre, it is known for the frescoes by Enrique Segura which decorate its walls and are an allegorical interpretation of the history of the foundation of the Universidad Laboral, making this space a truly unique and solemn place.