### SCIENTIFIC EVENTS

#### MEETINGS & CONFERENCES, TRAINING COURSES AND WORKSHOPS

The CNIO is committed to disseminating the results of state-of-the-art cancer research to the wider community, including medical professional and junior scientists, thereby enabling them to stay abreast of recent developments in specialised techniques. This is achieved through training courses and hands-on workshops organised by CNIO scientists and technologists.

**FLOW CYTOMETRY INDUCTION COURSE: FUNDAMENTALS, APPLICATIONS, DATA ANALYSIS AND DATA PRESENTATION**

- **18-19 JANUARY 2021**
- **12-13 APRIL 2021**
- **1-2 MAY 2021**
- **24-25 MAY 2021**
- **5-6 JULY 2021**
- **6-7 SEPTEMBER 2021**
- **18-19 OCTOBER 2021**
- **29-30 NOVEMBER 2021**

**SPEAKERS:**
- Lola Martínez, Head of the Flow Cytometry Unit, CNIO
- Sara García García, Flow Cytometry Unit Technician, CNIO
- Julia García-Lestón, Flow Cytometry Unit Technician, CNIO
- Andrea Valle, European Applications Specialist DeNovo Software

**MULTICOLOR FLOW CYTOMETRY COURSE**

- **15-16 MARCH 2021**
- **20-21 SEPTEMBER 2021**

**SPEAKERS:**
- Andrea Valle, European Application Specialist. DeNovo Software
- Jose Manuel Lígos, Technical Application Specialist. Cytek Biosciences
- Lola Martínez, Head of the Flow Cytometry Unit, CNIO
- Julia García Lestón & Sara García, Flow Cytometry Unit Staff, CNIO

**ADVANCED CELL CYCLE DATA ANALYSIS WITH FCS EXPRESS 7**

- **13 MAY 2021**

**ORGANISERS:**
- Lola Martínez, Head of the Flow Cytometry Unit. CNIO
- Andrea Valle, European Applications Specialist DeNovo Software

**III CNIO-BANCO SABADELL FOUNDATION WORKSHOP ON PHILOSOPHY, SCIENCE AND MEDICINE: THE USE OF ANIMALS IN SCIENCE, ETHICAL AND EPISTEMIC PROBLEMS AND ALTERNATIVES.**

- **23 NOVEMBER 2021**

**WITH THE SUPPORT OF:**
- Sabadell Foundation

**SPEAKERS:**
- Fabiola Leyton, University of Barcelona
- Manuel Valiente, Spanish National Cancer Research Center
- Lucía Arana, El caballo de Nietzsche, elDiario.es
- Marta Tafalla, Autonomous University of Barcelona
- Lluís Montoliu, National Centre for Biotechnology (CNB-CSIC)
- Guillermo Repetto, Pablo de Olavide University
- Raúl Rabadán, Columbia University
CNIO Distinguished Seminars

The purpose of the Distinguished Seminars Series is to invite outstanding and internationally renowned scientists to give a seminar and to meet with researchers at the CNIO. Distinguished Seminars are recurrent events that are open to the public and are held throughout the year, usually on Fridays at noon in the CNIO Auditorium. Each Distinguished Seminar series includes world-leading scientists who address topics that are of general interest to the CNIO faculty. All the seminars proceeded in a virtual format due to the current pandemic.

In total, the CNIO hosted 13 online distinguished speakers in 2021.

<table>
<thead>
<tr>
<th>DATE</th>
<th>SPEAKER</th>
<th>ORGANISATION</th>
<th>TITLE</th>
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<tbody>
<tr>
<td>JANUARY</td>
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<tr>
<td>29/01/2021</td>
<td>Christopher Vakoc</td>
<td>Cold Spring Harbor Laboratory, New York, US</td>
<td>Aberrant transcription in pancreatic cancer</td>
</tr>
<tr>
<td>FEBRUARY</td>
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<tr>
<td>05/02/2021</td>
<td>Elena Conti</td>
<td>Max Planck Institute of Biochemistry, Martinsried, Germany</td>
<td>The RNA exosome complex: the Dr Jekyll and Mr Hyde of RNA degradation</td>
</tr>
<tr>
<td>26/02/2021</td>
<td>Raúl Rabadán</td>
<td>Columbia University, New York, US</td>
<td>A Topological Data Analysis perspective on coronavirus evolution</td>
</tr>
<tr>
<td>MARCH</td>
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<tr>
<td>05/03/2021</td>
<td>Lluis Fajas</td>
<td>Center for Integrative Genomics, CSIC, Lausanne, Switzerland</td>
<td>THE CDK4 REVOLUTION: The fight against hunger</td>
</tr>
<tr>
<td>12/03/2021</td>
<td>Titia Sixma</td>
<td>The Netherlands Cancer Institute, Amsterdam, The Netherlands</td>
<td>DUB gymnastics: allosteric regulation of DUBs in DNA regulation</td>
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<tr>
<td>APRIL</td>
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<tr>
<td>07/05/2021</td>
<td>Agata Smogorzewska</td>
<td>The Rockefeller University, New York, US</td>
<td>Tumorigenesis in the setting of DNA interstrand crosslink repair deficiency</td>
</tr>
<tr>
<td>21/05/2021</td>
<td>Sara Buhrlage</td>
<td>Dana-Farber Cancer Institute, Boston, US</td>
<td>Integrated platform for DUB inhibitor discovery</td>
</tr>
<tr>
<td>MAY</td>
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<tr>
<td>04/06/2021</td>
<td>Pascale Cossart</td>
<td>Pasteur Institute, Paris, France</td>
<td>Infection biology in the era of microbiomes: the Listeria paradigm</td>
</tr>
<tr>
<td>11/06/2021</td>
<td>Asifa Akhtar</td>
<td>Max Planck Institute of Immunology and Epigenetics, Freiburg, Germany</td>
<td>X chromosome: A paradigm to study epigenetic regulation</td>
</tr>
<tr>
<td>18/06/2021</td>
<td>Nuria Sebastián</td>
<td>Pompeu Fabra University, Barcelona, Spain</td>
<td>Languages before language: Infants’ early steps to learn language(s)</td>
</tr>
<tr>
<td>OCTOBER</td>
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<tr>
<td>08/10/2021</td>
<td>Markus Grompe</td>
<td>Oregon Health &amp; Science University, Portland, US</td>
<td>The role of polyploid hepatocytes in injury, aging and oncogenesis</td>
</tr>
<tr>
<td>05/11/2021</td>
<td>Clara Montagut</td>
<td>Hospital del Mar, Barcelona, Spain</td>
<td>Clinical utility of Liquid biopsy in colorectal cancer</td>
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<tr>
<td>DECEMBER</td>
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<tr>
<td>17/12/2021</td>
<td>Serena Nik-Zainal</td>
<td>Hutch/NHS/MRC Research Centre - University of Cambridge, UK</td>
<td>Recent insights into somatic mutagenesis in human cancers and stem cell systems</td>
</tr>
</tbody>
</table>
AD-HOC SEMINARS

In addition to the CNIO Distinguished Seminar Series, the CNIO also hosts numerous ad-hoc seminars throughout the year. Ad hoc seminars are organised having the following purpose: academic interactions, academic elevation and enrichment, and academic vis-a-vis social networking. In addition, they facilitate socialising with colleagues from other institutions. A total of 16 ad-hoc seminars were organised by CNIO researchers in 2021.

<table>
<thead>
<tr>
<th>DATE</th>
<th>SPEAKER</th>
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<tbody>
<tr>
<td>JANUARY</td>
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<tr>
<td>12/01/2021</td>
<td>Fernando Calvo</td>
<td>Institute of Biomedicine and Biotechnology of Castabria (IBBTEC), Spain</td>
<td>Harnessing cancer-associated fibroblasts to deter tumour progression</td>
</tr>
<tr>
<td>15/01/2021</td>
<td>Lluís Corbí Barris</td>
<td>Keck School of Medicine, USC, Los Angeles, USA</td>
<td>Drawing a microcephalic brain picture from different perspectives</td>
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<td>FEBRUARY</td>
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<tr>
<td>04/02/2021</td>
<td>Elva Martín Balista</td>
<td>University of La Laguna, San Cristóbal de La Laguna, S/C de Tenerife, Spain</td>
<td>The autocrine and neuroprotective roles of S6K1</td>
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<tr>
<td>22/02/2021</td>
<td>Miguel F. Samanam</td>
<td>Clínica Universidad de Navarra, Pamplona, Spain</td>
<td>New tools for cancer Immunotherapy development</td>
</tr>
<tr>
<td>25/02/2021</td>
<td>Juan Pablo Unfried</td>
<td>Center for Applied Medical Research (CIMA), University of Navarra, Spain</td>
<td>Long non-coding RNA NHCOLE promotes DNA damage-repair in liver cancer cells</td>
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<tr>
<td>MARCH</td>
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<tr>
<td>11/03/2021</td>
<td>Javier Tamayo</td>
<td>Institute of Micro and Nanotechnology (IMN-CN1), CSIC, Madrid, Spain</td>
<td>Osteoanemomechanical technologies for early cancer detection and new avenues in cancer research</td>
</tr>
<tr>
<td>25/03/2021</td>
<td>Carla Ubeda</td>
<td>FISABIO, Valencia, Spain</td>
<td>Role of the microbiome in infectious and autoimmune diseases</td>
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<td>13/04/2021</td>
<td>Branavan Manoranjan</td>
<td>University of Calgary, Calgary, Canada</td>
<td>Bi-directional vulnerability of malignant brain tumors to Wnt signaling</td>
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<td>MAY</td>
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<tr>
<td>12/05/2021</td>
<td>Antonin Morillon</td>
<td>Institut Curie, Paris, France</td>
<td>Long non-coding RNA, fate and function</td>
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<tr>
<td>JUNE</td>
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<tr>
<td>14/06/2021</td>
<td>Javier Redondo Muñoz</td>
<td>Center for Biological Research (CIB), Madrid, Spain</td>
<td>The interplay between epigenetics and cytoskeleton in mechanics and migration of leukemia cells</td>
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<td>SEPTEMBER</td>
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<tr>
<td>16/09/2021</td>
<td>Anders Nordell</td>
<td>Collective Minds Radiology</td>
<td>Collaborative Research and a central, cloud based, multi-modal data repository with analytics and data curation</td>
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WOMEN IN SCIENCE SEMINARS

In 2021, the WISE Office invited and welcomed several top female and male leaders from different areas to tell us about their career path experiences.

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<tbody>
<tr>
<td>OCTOBER</td>
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<tr>
<td>04/10/2021</td>
<td>Roser Vento-Tormo</td>
<td>Wellcome Sanger Institute, U.K.</td>
<td>Mapping tissues in vivo and in vitro</td>
</tr>
<tr>
<td>27/10/2021</td>
<td>Israel S. Fernández</td>
<td>St. Jude Children’s Research Hospital, Memphis, TN, USA</td>
<td>Structural basis of DNA Targeting by a transposon encoded CRISPR-Cas SYSTEM</td>
</tr>
<tr>
<td>NOVEMBER</td>
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<tr>
<td>16/11/2021</td>
<td>Hugo Muñoz Hernández</td>
<td>Biozentrum, University of Basel, Switzerland</td>
<td>Transient states of substrate transfer in polypeptide synthases visualised by Cryo-EM</td>
</tr>
<tr>
<td>22/11/2021</td>
<td>Gregorio Rubio Navarro and Antonio Falcó Montalba</td>
<td>Politécnica de Valencia University and CEU, Catalunya, Spain</td>
<td>Systems Biology based Digital Twins: A constructive approach for recommendation systems in precision medicine</td>
</tr>
<tr>
<td>24/11/2021</td>
<td>María-Miether Brunet Hernero</td>
<td>Center for Molecular Biology “Severo Ochoa”, Madrid, Spain</td>
<td>How can aged-related changes in T cell metabolism drive systemic multi-tissue ageing?</td>
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SCIENTIFIC MANAGEMENT | SCIENTIFIC EVENTS

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<tbody>
<tr>
<td>18/01/2021</td>
<td>Sara Giménez</td>
<td>Member of the Congress and of the European Commission against Racism and Intolerance</td>
<td>Advancing equal treatment and opportunity, approaching the Roma people</td>
</tr>
<tr>
<td>09/02/2021</td>
<td>Gemma Robles</td>
<td>Deputy Director of El Periódico</td>
<td>Press, science and the debit with Matilda</td>
</tr>
<tr>
<td>09/03/2021</td>
<td>Mary Beard, María Blasco, and Susana Torres</td>
<td>University of Cambridge; CNIO; IE University</td>
<td>Women and Power: Round table</td>
</tr>
<tr>
<td>11/03/2021</td>
<td>Online film</td>
<td>Women in Science Office</td>
<td>“Picture a Scientist”</td>
</tr>
<tr>
<td>16/03/2021</td>
<td>Sonja Sánchez de Santamaría</td>
<td>Former Vicepresident of the Government of Spain</td>
<td>Female talent and crisis management</td>
</tr>
<tr>
<td>12/04/2021</td>
<td>Carlos Fernández</td>
<td>President of the National Commission of Markets and Competition (CNMC)</td>
<td>The Presence of Women in the Legal Profession</td>
</tr>
<tr>
<td>18/05/2021</td>
<td>Zulema Altamirano Aragón</td>
<td>Spanish Ministry of Science and Innovation</td>
<td>Working in equality; empower, believe, transform</td>
</tr>
<tr>
<td>24/06/2021</td>
<td>Maria Sanz</td>
<td>Writer and Prikologist</td>
<td>Writing: a journey through the human body</td>
</tr>
<tr>
<td>08/03/2021</td>
<td>Rigoberta Bandini</td>
<td>Artist</td>
<td>Dialogue with Rigoberta Bandini</td>
</tr>
<tr>
<td>14/04/2021</td>
<td>Maria Purificación Neira</td>
<td>Environment, Climate Change and Health, (ECH) LMCHEP World Health Org., Geneva, Switzerland</td>
<td>Public Health in feminine</td>
</tr>
<tr>
<td>03/11/2021</td>
<td>Maria Pagés</td>
<td>choreographer of flamenco and Spanish dance</td>
<td>Dancing needs some talent and a lot of work</td>
</tr>
<tr>
<td>10/11/2021</td>
<td>Blanca Li</td>
<td>Director of the ‘niños del Canal’ and Maria Blasco, CNIO Director</td>
<td>Colloquium between Blanca Li, Director of the Niños del Canal and Maria Blasco, CNIO Director</td>
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</tbody>
</table>
The Centre opened its doors to the public on September 24 to show its commitment to society and to promote scientific culture.

Between 5 p.m. and 11 p.m., 4 groups of people participated in a live science experiment with young volunteer researchers from the Centre, who guided each group step by step through the process of carrying out a science experiment at home using everyday household products. The scientists also explained what a researcher’s work consists of and answered questions or doubts. Altogether, more than 300 people signed up for the day, a new success in terms of participation.

To be able to carry out the experiment, in which they learned how to extract DNA from a tomato, the registered participants received a “scientist’s kit” with all the necessary materials at home.

The activity aims to inspire a scientific vocation in very young people, to break down stereotypes associated with people involved in research, and to show what CNIO cancer research is all about.

The European Researchers’ Night is an initiative of the European Union, held simultaneously in 350 European cities to disseminate the importance of scientific knowledge. In Madrid, it is promoted by the Regional Ministry of Science, Universities and Innovation and coordinated by the Madri+d Knowledge Foundation. The Project is funded by the European Union’s Horizon 2020 Research and Innovation Programme under the Marie Skłodowska-Curie actions.