

OncoProTools Summer School 2024

National Centre for Biotechnology
Spanish National Research Council



SEPTEMBER 12-18, 2024

National Centre for Biotechnology (CNB-CSIC)
Cantoblanco Campus, CNB Building, Room B

Address: C. Darwin, 3, Fuencarral-El Pardo, 28049 Madrid, Spain

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CNB
CENTRO NACIONAL DE BIOTECNOLOGIA



Funded by
the European Union



CSIC
CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS

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SCHEDULE



LOCATION: ROOM B - CNB

THU 12	FRI 13	MON 16	TUE 17	WED 18
<p>09:00 - 09:10</p> <p>WELCOME</p> <p>09:10 - 12:30</p> <p>GENDER IN SCIENCE</p> <p>Silvia Rueda Spanish Ministry of Science & Innovation</p> <p>Lydia González FECYT</p> <p>Capitolina Díaz University of Valencia and AMIT</p>	<p>09:00 - 12:00</p> <p>OPEN SCIENCE</p> <p>Pilar Rico Castro FECYT</p>	<p>09:00 - 12:30</p> <p>ENTREPRENEURSHIP FOR EARLY-STAGE RESEARCHERS</p> <p>Jordi Vinaixa ESADE Business School</p>	<p>09:00 - 12:00</p> <p>SIGNALING PATHWAYS IN CANCER</p> <p>Ana Cuenda and Juan José Sanz-Ezquerro CNB-CSIC</p>	<p>09:00 - 10:30</p> <p>PROTEASES: PROPERTIES, STRUCTURE & FUNCTION</p> <p>Ingrid De Meester UAntwerp</p> <p>11:00 - 12:30</p> <p>COVALENT PROTEASE TARGETING: CHALLENGES AND OPPORTUNITIES</p> <p>Tanja Schirmeister JGU Mainz</p>
<p>Group lunch time at the canteen of Faculty of Psychology of UAM</p>				
<p>14:00 - 17:00</p> <p>AI IN BIOMEDICINE</p> <p>IBiDat - Big Data Institute</p>	<p>14:00 - 17:00</p> <p>GROUP WORK "ENTREPRENEURSHIP CHALLENGE"</p>	<p>13:30 - 17:00</p> <p>ENTREPRENEURSHIP FOR EARLY-STAGE RESEARCHERS</p> <p>Jordi Vinaixa ESADE Business School</p>	<p>13:30 - 15:00</p> <p>CELLULAR IMMUNOTHERAPY</p> <p>Michael Bachmann HZDR</p> <p>15:00 - 17:00</p> <p>GROUP WORK "ENTREPRENEURSHIP CHALLENGE"</p>	<p>13:30 - 15:00</p> <p>INTERNAL "OUTREACH DISCUSSION"</p> <p>15:00 - 17:00</p> <p>GROUP WORK "ENTREPRENEURSHIP CHALLENGE"</p>
<p>Group Dinner 20:00</p>			<p>Group Activity 18:30</p>	



(09:00 - 09:20) WELCOME WORDS

*Dr. Ana Cuenda and Dr. Juan José Sanz-Ezquerro
National Centre for Biotechnology, CNB-CSIC*



(09:20 - 12:00) GENDER IN SCIENCE

Driving Effective Gender Equality in R&D: key strategies and policies Dr. Silvia Rueda Pascual

Advisory Member in the Cabinet of the Minister of Science, Innovation, and Universities and Director of the Women and Science Unit. PhD in Computer Science and former professor at the University of Valencia

Policies to promote an inclusive gender analysis into R&I content in the ERA: remarks for the health field

Dr. Lydia González Orta

Gender & Science European Projects at the International Department of the Spanish Foundation for Science and Technology (FECYT). PhD in Social Sciences and Spanish National Contact Point of Horizon Europe for cross-cutting gender issues

COFFEE BREAK

Gender Biases in Research, Selection and Evaluation

Prof. Dr. Capitolina Díaz Martínez

Full professor, Department of Sociology and Social Anthropology at the University of Valencia. Former President of the Association of Women Researchers and Technologists (AMIT)





(14:00 - 17:00) AI IN BIOMEDICINE

Artificial Intelligence Today: Addressing Challenges, Exploring Research Opportunities, and Identifying Weaknesses



What is understood as AI today and the impact of data
Introduction to IBiDat

Prof. Dr. Rosa Elvira Lillo Rodríguez

Director of UC3M-Santander Big Data Institute (IBiDat) and Professor of Statistics and Operations Research at Universidad Carlos III de Madrid (UC3M)



Interpretability in AI

Dr. Pablo Morala

Postdoctoral researcher at UC3M-Santander Big Data Institute (IBiDat)

COFFEE BREAK



Machine Learning Fairness in AI

Dr. Sandra Benítez-Peña

Juan de la Cierva post-doctoral researcher at the Department of Statistics at Universidad Carlos III de Madrid (UC3M) and Affiliated collaborator researcher at UC3M-Santander Big Data Institute (IBiDat)



Networks in AI

Dr. Blas Kolic

PhD in Mathematics from the University of Oxford. Postdoctoral researcher at the at UC3M-Santander Big Data Institute (IBiDat)



The carbon footprint of AI and social media

Dr. José González-Cabañas

Postdoctoral Researcher at UC3M-Santander Big Data Institute (IBiDat)



(09:00 - 12:00) WORKSHOP: OPEN SCIENCE

Open Science for Early-stage Researchers

Prof. Dr. Pilar Rico Castro

Head of the Unit for Open Science at the Spanish Foundation for Science and Technology (FECYT)

Learning outcome: This course aims to provide doctoral students with an advanced understanding of concepts and practices related to open science and open access, focusing particularly on policies and resources available in Europe. This course also aims to encourage critical reflection and debate among students, as well as provide them with the tools and knowledge necessary to actively engage in the open research community.

Content:

1. Introduction to Open Science and Open Access
2. Academic Publishing Markets
3. Public Policies for Open Access in Europe
- 4: FAIR Research Data
- 5: Know Your Resources: OpenAIRE, ORE, EOSC

PROF. DR. PILAR RICO CASTRO

Head of the Unit for Open Science at the Spanish Foundation for Science and Technology (FECYT). She holds a PhD in Government and Public Administration and is a professor at the Political Science and Administration Department at the National University of Distance Education.



(09:00 - 17:00) WORKSHOP IN ENTREPRENEURSHIP

Entrepreneurship for early-stage researchers

Prof. Dr. Jordi Vinaixa

Professor of Entrepreneurship, Project Management and Strategic Management at ESADE Business School, an international private graduate-level business school located in Barcelona, Spain.

Learning outcome: This session on Entrepreneurship will focus on two main issues, firstly, the context, in which a scientific venture is established and operates and, secondly, the process of developing and managing a new venture.

Content:

1. Understanding the process of building a new venture.
2. From 'the idea' to 'the opportunity': assessing business opportunities.
3. Designing a suitable business model for the opportunity. Description and use of the "Business Model Canvas" (BMC).
4. Business Model Validation: The Lean Start-up approach.
5. The business plan: Content, description, and use.

PROF. DR. JORDI VINAIXA SERRA

Senior Lecture of the Dept. of Strategy and General Management at ESADE Business School. Associate Professor of Inorganic Chemistry (on leave). He holds a PhD in Chemistry from Universidad de Barcelona, an MBA from ESADE Business School, and followed the postgraduate program in Entrepreneurship EECPCCL, at Harvard Business School. He is currently teaching Entrepreneurship and Project management courses on Undergraduate, MSc, MBA and Executive Education programs in the Barcelona, Madrid and Buenos Aires ESADE's campuses, and in the ESADE Executive Programmes in Brazil. He has been a visiting professor of Entrepreneurship in the Beijing International MBA (BiMBA) program of the Peking University (China) during the years 2009 and 2010.

DAY 4

Tuesday, 17 September



(09:00 - 12:00) SIGNALING PATHWAYS IN CANCER

Dr. Ana Cuenda

Deputy director CNB-CSIC and head of the Research Group 'Stress-activated protein kinases in inflammation and cancer', Department of Immunology and Oncology (DIO) of CNB-CSIC.



Dr. Juan José Sanz-Ezquerro

Head of the Research Group 'Embryonic development and differentiation in vertebrates', Department of Molecular and Cellular Biology of CNB-CSIC



(13:30 - 15:00) CELLULAR IMMUNOTHERAPY

Prof. Dr. Michael Bachmann

Director, Institute of Radiopharmaceutical Cancer Research and Head of Department Radioimmunology at the Institute of Radiopharmaceutical Cancer Research, Helmholtz-Zentrum Dresden-Rossendorf (HZDR)

DAY 5

Wednesday, 18 September



(09:00 - 10:30) PROTEASES: PROPERTIES, STRUCTURE & FUNCTION

Prof. Dr. Ingrid De Meester

Full Professor and Head of the Laboratory of Medical Biochemistry, Department of Pharmaceutical Sciences, University of Antwerp



(10:45 - 12:15) COVALENT PROTEASE TARGETING: CHALLENGES AND OPPORTUNITIES

Prof. Dr. Tanja Schirmeister

Full Professor in Pharmaceutical Chemistry and Head of the Institute for Pharmaceutical and Biomedical Science, Johannes Gutenberg - University of Mainz

ASSIGNMENTS



1) PERSONAL CAREER DEVELOPMENT PLAN

Delivery date: 30 June 2024

Please complete your Personal Career Development Plan (PCDP) in the OncoProTools template available [on MS Teams](#). Note that the content must be discussed with your supervisor(s) during a face-to-face meeting and not only via email. A signed copy must be sent to info.oncoprotools@uantwerpen.be before the deadline.

2) PROJECT PROGRESS PRESENTATION

Delivery date: 16 September 2024

Please prepare a presentation for your project progress. You will have 20 minutes (strict timing) to present your slides, which will be followed by a 5-minute Q&A. Please submit your slides to info.oncoprotools@uantwerpen.be no later than 16 September.

3) EVALUATION QUESTIONNAIRE OF THE SUMMER SCHOOL 2024

Delivery date: 30 September 2024

Please respond to the following anonymous evaluation questionnaire before the deadline. It is highly recommended that you fill out this questionnaire as early as possible after the end of the Summer School to ensure more precise answers.

Questionnaire: TBD

4) STUDY CASE “AEINNOVA: FROM SCIENCE TO BUSINESS”

Completion date: 15 September 2024

Read the case shared by email on 23 August carefully and try to respond to the two proposed questions to prepare for the planned discussions during the workshop “Entrepreneurship for Early-Stage Researchers”.

5) ENTREPRENEURSHIP CHALLENGE 2024

Delivery date: 18 September 2024 (23:00 CET)

Introduction: the goal of the challenge 2024 is to draft a research proposal addressing an unmet need within the scientific topic of your work package. The research proposal should have a high translational and even marketing potential. Start by brainstorming with your teammates to identify the unmet need (i.e. research idea, new technology, innovative tool,...), and make sure to respond to the nine items in the “content structure” section.

ASSIGNMENTS



Groups: They consists of the **Doctoral Candidates** involved in your work package:

- WP1: Simona, Hugo, and Muslimbek
- WP2: Nikita, Magda, Thales, and Oliviero
- WP3: Alberto, Héctor, and Adrianna

Material: The following material is also accessible in the module “Entrepreneurship Challenge” of the OncoProTools e-learning platform (<https://vice.uantwerpen.be>):

- OncoProTools “Project Proposal”: [access Teams link](#)
- Slides “Science for Policy” (Lisbon): [access Teams link](#)
- Slides “Technology Readiness Levels” (UAntwerp): [to be added on 9 September](#)
- Article “[How to write a convincing Impact Section for EU project proposal](#)” by EMDESK
- Article “[Building a Consortium in Horizon Europe – Don’t Bring Your Friends!](#)” by ENSPIRE

Structure of the assignment: Only assignments up to **8 pages** will be accepted.

1. **Title:** try to be inventive and look for an attractive title, including an acronym.
2. **Abstract:** describe the main goal, the novelty, and uniqueness of the research proposal. ([Max. half page](#))
3. **Background:** existing know-how (research data) and technology to address the unmet need. ([1 page](#))
4. **Brief Technology Readiness Level** analysis of the proposed outcome. ([Max. half page](#))
5. **Work packages:** title & description of the sub-goals to address. ([Max. half page per WP](#))
6. **Partners:** identify key partners and stakeholders (whose opinions will be crucial during the project) and describe the strategy to engage them. Using a table for this section is highly recommended. ([1 page](#))
7. **Gantt Chart** (timetable): intermediate milestones and realistic achievement cut-off dates. ([1 page](#))
8. **Simplified budget:** identify cost categories (e.g. personnel, consumables, equipment, etc.) and propose a budget breakdown, including the total amount. ([1 page](#))
9. **Short market analysis** and client identification. ([1 page](#))
10. Economic, societal, and scientific impact of the expected project results. ([Half page](#))

Please email your research proposal in PDF to info.oncoprotools@uantwerpen.be before the delivery date (Wednesday, 18 September at 23:00 CET).

Presentation: Each group will present their research proposal during the Annual Meeting. Please prepare a [15-minute presentation](#), which will be followed by a 10-minute Q&A. Using slides is voluntary, but the following guidelines shall be respected:

1. **Intro by a spokesperson:** one team member is designated as the spokesperson and briefly introduces the project, the project partners, and the work packages (not in detail).
2. **Work packages:** each work package is presented in detail by a different team member.
3. **Gantt, Budget, and Impact:** A non-spokesperson team member is responsible for describing the Gantt, the budget, and the impact.


SOCIAL PROGRAMME



DINNER AT FATIGAS DEL QUERER

 September 12, 2024

 20:00 CET

 C. de la Cruz, 17, 28012 Madrid

As part of the opening of the Summer School, all the DCs are invited to join a Group dinner to enjoy the Madrilenian gastronomy in an authentic Spanish restaurant.



GO-KARTS EVENING

 September 17, 2024

 18:00 CET

 C. de Sepúlveda, 3, 28011 Madrid

To make the Summer School an unforgettable experience, all the DCs are invited to discover all the excitement of a Grand Prix at Carlos Sainz Karting Madrid. The session will include 3 races.



NATIONAL CENTRE FOR BIOTECHNOLOGY (CNB) - SPANISH NATIONAL RESEARCH COUNCIL (CSIC)

ADDRESS: C. DARWIN, 3, FUENCARRAL-EL PARDO, 28049 MADRID, SPAIN

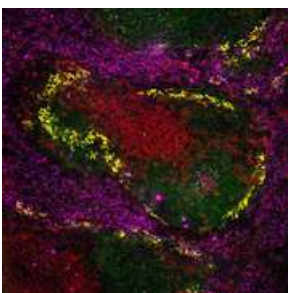
The National Centre for Biotechnology (CNB) is a research centre that forms part of the Spanish National Research Council (*Consejo Superior de Investigaciones Científicas*, CSIC), Spain's most important public scientific institution. The CNB opened in 1992 to lead the development of modern biotechnology in Spain.



The CNB's goal is framed in the World Health Organization (WHO) One Health initiative, which we view as crucial at a time when global challenges transcend local and compartmentalized research, demanding intensive collaborative efforts that exploit cutting-edge technologies. CNB's focus embraces four major scientific and societal challenges: infectious diseases, inflammation and cancer, sustainability of safe food production and bioremediation of environmentally relevant emissions.

The CNB is distinguished by its versatile interdisciplinary research that combines molecular biology methods with the latest technology in the fields of functional and structural biology. With a team of more than 600 professionals, CNB is committed to research excellence.

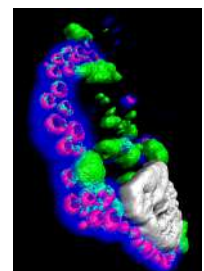
RESEARCH



The CNB research groups hosting the OncoProTools Summer School and Annual Meeting 2024 are:

1) The group working on **Stress-activated protein kinases in inflammation and cancer**, led by **Dr. Ana Cuenda** and part of the Department of Immunology and Oncology (DIO), whose aim is to understand the role of p38MAPK proteins in physiology and disease. Learn more [HERE](#).

2) The group working on **Embryonic development and differentiation in vertebrates**, led by **Dr. Juan José Sanz-Ezquerro** and part of the Department of Molecular and Cellular Biology, whose aim is to understand the molecular and cellular basis of organ formation during embryonic development. Learn more [HERE](#).



GET TO THE VENUE



CNB-CSIC is located at Universidad Autónoma de Madrid-Cantoblanco Campus.



BY PLANE

The most convenient way to arrive in Madrid City is by plane. Check out the **Adolfo Suárez Madrid-Barajas Airport [Transport Information](#)** for details. Once in the airport, please follow the sign "Metro" to the subway station. **Line 8** takes you directly to the **Metro stop Nuevos Ministerios** (~15-minute ride), where you can connect to the station **Cantoblanco-Universidad** (via Line C-4a direction to Alcobendas/San Sebastián de los Reyes; or Line C-4a direction to Colmenar Viejo). This is a 30-minute ride and **a 10-trip card to Cantoblanco-Universidad costs 10 Euros**. For more information, please check the [map of the metro](#) and the [map of the train](#).

BY TRAIN

From Train Station Chamartín, which is close to most of the recommended accommodation options, you can take train **Line C-4a or C-4b** (direction to Alcobendas/San Sebastián de los Reyes or Colmenar Viejo) and stop in **Cantoblanco-Universidad**. The CNB is situated within a 10-minute walking distance from the railway station.

BY BUS

The following bus lines stop at Universidad Autónoma. The CNB-CSIC is situated within a 2-minute walking distance from the bus terminal.

- [714](#) (Plaza Castilla - Univ. Autónoma - Univ. Comillas)
- [827](#) (Canillejas - Aeropuerto T4 - Alcobendas - Univ. Autónoma - Tres Cantos)
- [827A](#) (San Sebastián de los Reyes - Alcobendas - Univ. Autónoma)
- [828](#) (Canillejas - Aeropuerto T4 - Alcobendas - Univ. Autónoma)

BY TAXI

The price of a taxi drive from the city center of Madrid airport ranges from 25 to 30 Euros.
Tele Taxi: +34 913 712 131 / Pidetaxi: +34 915 478 200

GET TO THE VENUE



UNIVERSIDAD AUTÓNOMA DE MADRID-CANTOBLANCO CAMPUS [\[LINK\]](#)



METRO MAP MADRID [\[LINK\]](#)



COMMUTE BY METRO

The most convenient ticket to use the metro in Madrid several times is the **10 trips card**, which is not combined with the Train Service and can be used by multiple users. **It costs 8.30 Euros the first time and 6.10 Euros every time you charge it with 10 tickets.** [More details.](#)

ACCOMMODATION



We provide a non-exhaustive list of accommodations not far from the venue. You are strongly advised to prepare your travel arrangements as soon as possible to avoid overrated fees.

The DCs are supposed to discuss the accommodation budget limit with their supervisors since these expenses are to be covered by the EU budget of each beneficiary (not by the consortium budget).

ACCOMMODATION OPTIONS

1. Airbnb accommodations (<https://www.airbnb.com/>)

This seems a very suitable option for the DCs (long stay)

2. Hotel Chamartin The One **** ([LINK](#))

With access to the venue by train (35 min)

Price: ~€130/night, without breakfast ([+34 913 344 900](#))

3. Exe Plaza **** ([LINK](#))

With access to the venue by bus (35 min)

Price: ~€130/night, without breakfast ([+34 914 53 19 00](#))

4. Crisol Vía Castellana **** ([LINK](#))

With access to the venue by train (40 min)

Price: ~€130/night, without breakfast ([+34 915 67 43 00](#))

5. Apartamentos Las Torres *** ([LINK](#))

A good option for the DCs (long stay)

With access to the venue by train (45 min)

Price: ~€140/night, without breakfast ([+34 915 51 31 26](#))

6. Barceló Imagine ***** ([LINK](#))

With access to the venue by train (40 min)

Price: ~€170/night, without breakfast ([+34 917 32 70 19](#))

7. Eurostars Madrid Tower ***** ([LINK](#))

With access to the venue by train (30 min)

Price: ~€195/night, without breakfast ([+34 913 34 27 00](#))

WE WISH YOU A PLEASANT
AND ENRICHING SUMMER SCHOOL
IN MADRID!

