

BMM7 Module

Frontiers in Cardiovascular Research Course 2024-2025

January 8, 2025

CNIC Auditorium

09:00-09:30 Welcome by BMM7 coordinators:
Valentín Fuster, Héctor Bueno, M^a Ángeles Moro & Fátima Sánchez-Cabo

Form and function of the cardiovascular system

09:30-10:30 Cardiovascular disease: Needs and opportunities for translational research
Héctor Bueno, CNIC

January 9, 2025

Seminar Room 3rd Floor

09:00-10:30 Anatomy and physiology of the heart (I): Basic concepts of heart anatomy
(i.e. pig heart dissection)
José María Pérez-Pomares, Universidad de Málaga

January 10, 2025

CNIC Auditorium / Hospital

09:00-10:30 Anatomy and physiology of the heart (II): Basic concepts in cardiac echocardiography: in situ echocardiogram; interpretation of normal heart and basic anomalies
Inés García Lunar, CNIC

January 13, 2025

CNIC Auditorium

09:00-10:30 Developmental biology of the heart I
Bjarke Jensen, University of Amsterdam

January 14, 2025

CNIC Auditorium

09:00-9:45 Developmental biology of the heart II
José Luis de la Pompa, CNIC

9:45-10:30 To be confirmed
Henar Cuervo, CNIC

January 15, 2025

CNIC Auditorium

09:00-09:45 The normal heart rhythm and its functional and structural alterations that may lead to sudden cardiac death
David Filgueiras, CNIC

9:45-10:30 TBC
Almudena R. Ramiro, CNIC

January 16, 2025

CNIC Auditorium

09:00-10:30 Translational research in myocardial disease: calcer therapy cardiotoxicity as a role model
Borja Ibáñez, CNIC

Pathology of the cardiovascular system

January 17, 2025

CNIC Auditorium

09:00-09:45 Inflammation and immunity in cardiovascular disease
David Sancho, CNIC

09:45-10:30 Novel diagnosis and therapies for myocarditis
Pilar Martín, CNIC

January 20, 2025

CNIC Auditorium

- 09:00-09:45 Experimental models in cardiovascular research: Myocardial ischemia
Enrique Lara-Pezzi, CNIC
- 09:45-10:30 Heart Regeneration; animal models and translational strategies
Miguel Torres, CNIC

January 28, 2025

CNIC Auditorium

- 09:00-09:45 Vascular component in Alzheimer's disease: From mice to humans
Marta Cortés-Canteli, CINC-CSIC & CNIC
- 09:45-10:30 Translational research in cerebrovascular pathophysiology
M^a Ángeles Moro, CNIC

January 29, 2025

CNIC Auditorium

- 09:00-10:30 Cardiovascular health and disease: Present and Future
Valentin Fuster

January 30, 2025

CNIC Auditorium

- 09:00-09:45 Artificial intelligence for cardiovascular disease
Fátima Sánchez-Cabo, CNIC
- 09:45-10:30 Nanomedicine for cardiovascular disease
Carlos Pérez Medina, CNIC

Cardiovascular genetics

January 31, 2025

CNIC Auditorium

- 09:00-09:45 Genetic heart diseases
Pablo García Pavía, CNIC
- 09:45-10:30 Functional assessment of genetic variants linked to heart disease
Jorge Alegre-Cebollada, CNIC

Population studies: Genomics, epidemiology and clinical trials

February 3, 2025

CNIC Auditorium

- 09:00-09:45 Beyond traditional risk factors: acquired mutations as a shared driver of cardiovascular disease and cancer
José Javier Fuster, CNIC
- 09:45-10:30 Interpreting statistics in clinical trials
Stuart Pocock, CNIC/London School of Hygiene and Tropical Medicine

February 4, 2025

CNIC Auditorium

- 09:00-09:45 Aging and cardiovascular disease: From the rarest to the most common
Vicente Andrés, CNIC
- 09:45-10:30 Providing energy to the heart
José Antonio Enríquez, CNIC

February 5, 2025

CNIC Auditorium

- 09:00-09:30 Research and development in medicine: The industry vision
Enrique Samper, Life Length
- 09:30-10:00 Translational investigation in a biotech company
Macarena Hernández, UCM
- 10:00-10:30 Life Science Tool Development
Antonio Quílez, A4Cell

Frontiers in cardiovascular research

February 6, 2025

CNIC Auditorium

09:00-09:45

09:45-10:30

Practical Workshops

February 7, 2025

Seminar Room 3rd Floor

09:00-09:30 Introduction Seminar Microscopy Unit
Valeria Caiolfa, CNIC

09:30-10:00 Cardiovascular disease modelling: culture, differentiation and gene editing in mESC and hiPSC
Giovanna Giovinazzo, CNIC

February 10, 2025

GROUP 1: Cell Culture Room

09:00-10:00 Cardiovascular disease modelling: culture, differentiation and gene editing in mESC and hiPSC
Elisa Santos, Belén Prados, CNIC

GROUP 2: Microscopy Unit 2nd Floor West

09:00-10:00 Advance confocal and live cell microscopy
Elvira Arza, Olga Giménez, M^a Dolores López Maderuelo, CNIC

GROUP 1: Microscopy Unit 2nd Floor West

10:00-11:00 Advanced confocal and live cell microscopy
Alfonsa Diaz, Verónica Labrador, Moreno Zamai, CNIC

GROUP 2: Cell Culture Room

10:00-11:00 Cardiovascular disease modelling: culture, differentiation and gene editing in mESC and hiPSC
Elisa Santos, Belén Prados, CNIC

February 11, 2025

Sótano -3 – Animal grande

GROUP 1:

09:00-09:45 Cardiovascular image
Gonzalo Pizarro, Carlos Galán, CNIC

GROUP 2:

09:45-10:30 Cardiovascular image: RM & PET
Gonzalo Pizarro, Carlos Galán, CNIC

February 12, 2025

Seminar Room 3rd Floor

09:00-10:30 Model systems (II): Zebrafish
Eduardo Díaz, María Galardi, CNIC

February 13, 2025

GROUP 1:

09:00-09:45 Visit - Animal Facility
Santiago Rodríguez, CNIC

GROUP 2:

09:45-10:30 Visit - Animal Facility
Santiago Rodríguez, CNIC

February 14, 2025

Seminar Room 3rd Floor

09:00-10:30 Model systems (I): mouse-transgenesis
Juan de Dios Hourcade, CNIC

February 17, 2025

Seminar Room 3rd Floor

09:00-10:30 Proteomics & Metabolomics
Juan Antonio López & Alessia Ferrarini, CNIC

February 18, 2025

Seminar Room 3rd Floor

09:00-10:30 Flow cytometry
Beatriz Álvarez, Norman Muñoz, CNIC

February 19, 2025

Seminar Room 3rd Floor

09:00-10:30 Genomics
Ana Quintas, Rebeca Álvarez, M^a Ascensión Rey, CNIC

February 20, 2025

Seminar Room 3rd Floor

09:00-10:30 Bioinformatics and Biostatistics
Fátima Sánchez Cabo, Carlos Torroja, CNIC

BMM7 student presentations

February 25, 2025

Seminar Room 3rd Floor

10:00-11:30 Student presentations
Moderators: Héctor Bueno, M^a Ángeles Moro & Fátima Sánchez-Cabo (CNIC)