

BMM7 Module / Getting to know CNIC

Frontiers in Cardiovascular Research Course 2023-2024

Welcome

January 8, 2024

CNIC Auditorium

- 09:00-09:45 Welcome by Borja Ibáñez
Scientific Director and Director of the Department of Clinical Research
- 10:00-10:30 Welcome by BMM7 coordinators:
M^a Ángeles Moro, Carlos Pérez Medina & Fátima Sánchez-Cabo

Form and function of the cardiovascular system

- 10:30-11:30 Cardiovascular disease: Needs and opportunities for translational research
Héctor Bueno, CNIC

January 9, 2024

CNIC Auditorium

- 10:00-11:30 Developmental biology of the heart I
Bjarke Jensen, University of Amsterdam

January 10, 2024

CNIC Auditorium

- 10:00-10:45 Heart Developmental biology: Congenital heart disease and cardiomyopathy
José Luis de la Pompa, CNIC
- 10:45-11:30 Angiogenesis and its relevance for cardiovascular disease
Rui Bedito, CNIC

January 11, 2024

CNIC Auditorium

- 10:00-10:45 Gene Therapy for inherited arrhythmias and cardiomyopathy
Silvia Priori, CNIC & Università degli Studi di Pavia / IRCCS Fondazione Salvatore Maugeri

January 12, 2024

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 15, 2024

CNIC Auditorium

10:00-10:45 Vascular component in Alzheimer's disease: From mice to humans
Marta Cortés Canteli, IIS-FJD & CNIC

10:45-11:30 Translational research in cerebrovascular pathophysiology
M^a Ángeles Moro, CNIC

January 16, 2024

CNIC Auditorium / Hospital

10:00-11:30 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

Pathology of the cardiovascular system

January 17, 2024

CNIC Auditorium

09:00-9:45 Metabolic disorders: Basic and molecular concepts in obesity and diabetes
Guadalupe Sabio, CNIO

09:45-10:30 Inflammation and immunity in cardiovascular disease
David Sancho, CNIC

Frontiers in cardiovascular research

January 18, 2024

CNIC Auditorium

- 10:00-10:45 Non-invasive electromechanical assessment during atrial fibrillation identifies underlying atrial myopathy alterations with early prognostic value. *Nature Communications*.
David Filgueiras
- 10:45-11:30 Caveolin-1 dolines form a distinct and rapid caveolae-independent mechanoadaptation system. *Nature Cell Biology*.
Fidel Lolo / Miguel Ángel del Pozo

Pathology of the cardiovascular system I

January 19, 2024

CNIC Auditorium

- 10:30-12:00 Cardiovascular health and disease: Present and Future
Borja Ibáñez, CNIC

January 22, 2024

CNIC Auditorium

- 10:00-11:30 Translational research in myocardial disease: from ischemia/reperfusion injury to cardio-toxicity
Borja Ibáñez, CNIC

January 23, 2024

CNIC Auditorium

- 10:00-10:45 Artificial Intelligence advances in cardiovascular research
Fátima Sánchez-Cabo, CNIC
- 10:45-11:30 Nanomedicine for cardiovascular disease
Carlos Pérez Medina, CNIC

Cardiovascular genetics

January 30, 2024

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

January 31, 2024

CNIC Auditorium

- 10:00-10:45 Beyond traditional risk factors: acquired mutations as a shared driver of cardiovascular disease and cancer
José Javier Fuster, CNIC
- 10:45-11:30 Interpreting statistics in clinical trials
Stuart Pocock, CNIC/London School of Hygiene and Tropical Medicine

February 1, 2024

CNIC Auditorium

- 10:00-10:45 Aging and cardiovascular disease: From the rarest to the most common
Vicente Andrés, CNIC
- 10:45-11:30 Providing energy to the heart
José Antonio Enríquez, CNIC

February 2, 2024

CNIC Auditorium

- 10:00-10:30 Research and development in medicine: The industry's vision
Enrique Samper, Life Length
- 10:30-11:00 Translational investigation in a biotech company
Macarena Hernández, AptaTargets
- 11:00-11:30 Life Science Tool Development
Antonio Quílez, A4Cell

Pathology of the cardiovascular system II

February 5, 2024

CNIC Auditorium

- 10:00-10:45 Experimental models in cardiovascular research: Cardiac ischemia
Enrique Lara-Pezzi, CNIC
- 10:45-11:30 Heart Regeneration; animal models and translational strategies
Miguel Torres & Nadia Mercader, CNIC

Practical Workshops

February 6, 2024

Seminar Room 2nd Floor

10:00-10:30 Introduction Seminar Microscopy Unit
Valeria Caiolfa, CNIC

10:30-11:00 Cardiovascular disease modelling: culture, differentiation and gene editing in mESC and hiPSC
Giovanna Giovinazzo, CNIC

February 7, 2024

GROUP 1: Cell Culture Room

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

GROUP 2: Microscopy Unit 2nd Floor West

10:00-11:00 Advance confocal and live cell microscopy
Elvira Arza, Olga Giménez, M^a Dolores López Maderuelo, CNIC

GROUP 1: Microscopy Unit 2nd Floor West

11:00-12:00 Advanced confocal and live cell microscopy
M^a Dolores López, Verónica Labrador, Moreno Zamai, CNIC

GROUP 2: Cell Culture Room

11:00-12:00 Cardiovascular disease modelling: culture, differentiation and gene editing in mESC and hiPSC
Elisa Santos, Belén Prados, CNIC

February 8, 2024

Seminar Room 2nd Floor

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

February 9, 2024

Seminar Room 2nd Floor

10:00-11:30 Model systems (II): Zebrafish
Eduardo Díaz, María Galardi, CNIC

February 12, 2024

GROUP 1:

10:00-10:45 Visit Animal Facility
Santiago Rodríguez, CNIC

GROUP 2:

10:45-11:30 Visit Animal Facility
Santiago Rodríguez & Carlos Galán, CNIC

February 13, 2024

Seminar Room 2nd Floor

10:00-11:30 Model systems (I): mouse-transgenesis
Juan de Dios Hourcade, CNIC

February 14, 2024

Seminar Room 2nd Floor

10:00-11:30 Proteomics & Metabolomics
Juan Antonio López & Alessia Ferrarini, CNIC

February 15, 2024

Seminar Room 2nd Floor

10:00-11:30 Flow cytometry
Beatriz Álvarez, Norman Muñoz, CNIC

February 16, 2024

Sótano -3 – Animal pequeño

GROUP 1:

10:00-10:45 Cardiovascular image: RM & PET
Daniel Calle, M^a Isabel González, CNIC

GROUP 2:

10:45-11:30 Cardiovascular image: RM & PET
Daniel Calle, M^a Isabel González, CNIC

February 19, 2024

Seminar Room 2nd Floor

10:00-11:30 Bioinformatics and Biostatistics
Fátima Sánchez Cabo, Carlos Torroja, CNIC

BMM7 students' presentations

February 23, 2024

Seminar Room 1st Floor

09:00-12:00 Master students' presentations