



**IRB**  
BARCELONA

INSTITUTE  
FOR RESEARCH  
IN BIOMEDICINE



# IRB Barcelona

## Innovation Department

### 2024



2011, 2015, 2019, 2023

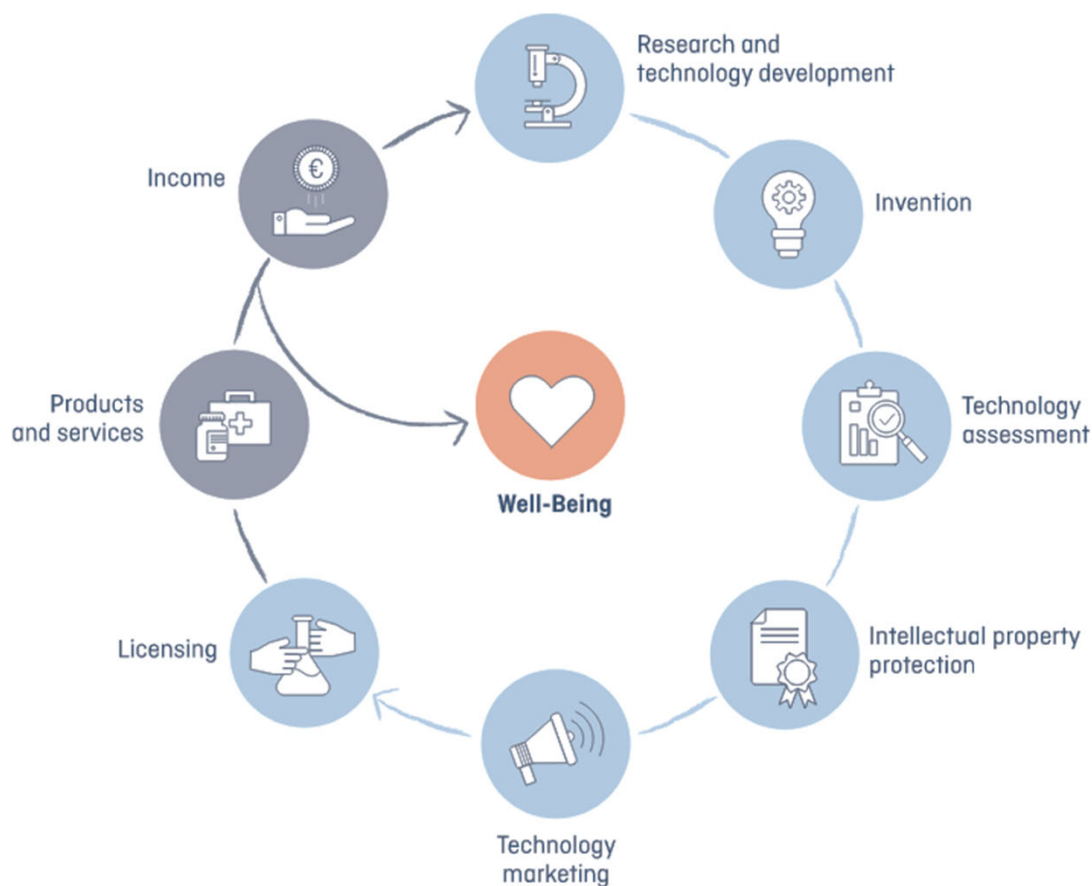


HR EXCELLENCE IN RESEARCH



# Mission and Functions

## Innovation Department



- Facilitate the **transformation of the research results into new therapies or diagnostic tools** for the wellbeing of patients and economic returns.
- **Lead the protection and commercialization of IRB Barcelona breakthroughs** by coordinating industrial collaborations, patenting, licensing and/or setting up spin-off companies.

*"According to ICREA evaluation, IRB Barcelona is positioned the most active institution in tech transfer"*  
(2021)



*"Premi Nacional per la creació d'una empresa de base científica"*  
(2022 and 2024)



# Mission and Functions

## Innovation Department

**1**

### **Evaluating and Securing Research**

Responsible for evaluating and protecting research with commercial application by protecting intellectual property and following best practices.

**2**

### **Promoting PoC Funding and Mentoring**

Promote funding and mentoring of Proof-of-Concept projects, either directly or in collaboration with companies.

**3**

### **Marketing Research Results**

Promote and manages R&D agreements, and commercializes research results by licensing them out.

**4**

### **Fostering Entrepreneurial Culture**

Foster an entrepreneurial culture among the research community at IRB Barcelona.

# Innovation Team



**Dr. Cristina Horcajada**  
Head of Innovation  
2009



**Dr. Delia Zafra**  
Senior Tech Transfer Manager  
2011



**Dr. Tiago Oliveira Botelho**  
Senior Business Development Manager  
2013



**Dr. Alba Olivares**  
Senior Tech Transfer Manager  
2014



**Dr. Aina Segues**  
Innovation Officer  
2023



**Marc Fullola**  
Technology Transfer Officer  
2023



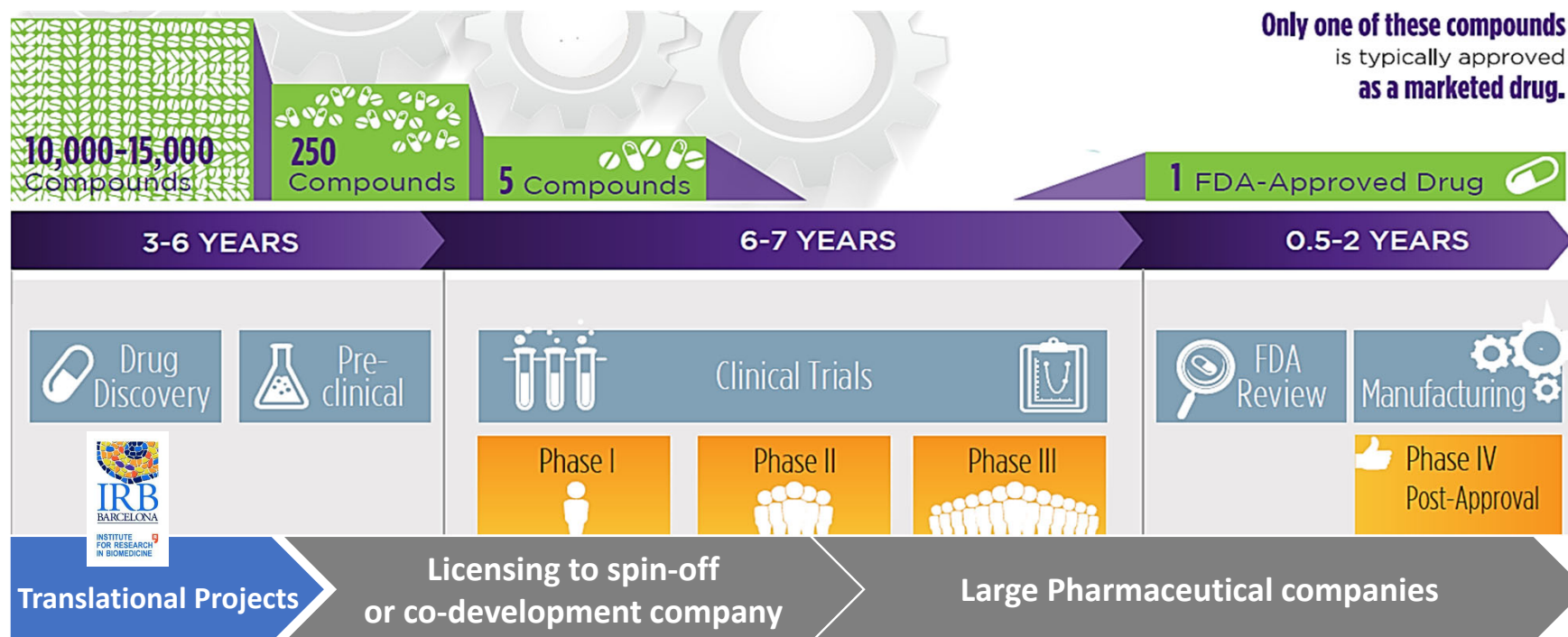
**Marc Maresch**  
Digital Transformation Technician  
2024



**Israel Ramos**  
Drug Screening Coordinator  
2018

Innovation Consultant

# Bringing drugs to Market



- Drug screening capabilities
- Medicinal chemistry and ADME-Tox
- IP strategy, Regulatory and commercialization
- Funding: non-competitive & competitive

# Team activities. PoC Projects and KTT

## PoC Projects

- Project Scouting
- Critical path & project plan definition
- Early contacts with advisors, industry, clinicians & CROs

- Grant agreements
- Application and execution of PoC Funds

ERC-PoC	Caixaimpulse	RETOS (MICINN)
EU-OpenScreen	AECC-Innova	PDC-MICINN
Horizon EU	Indústria Coneixement	Líneas Estratégicas
D&E Booster	(AGAUR)	

**ISS/Pre-award/ Post-award/Purchasing**

## Technology Transfer

- IPR & Commercialization Strategy
- Due diligence & Networking
- Negotiation of KTT agreements: R+D Collaborations, licenses, MTAs, CDAs
- Support to Spin-off creation and early contacts with VC
- Agreements follow-up

**Legal/ Finance**



Translational Projects

Technology Transfer

Mechanisms of Disease

Aging and Metabolism

Cancer Science

Transversal activities

Critical path  
Digitalization  
Strategic Plan



# Business Advisory Board



**Chair**  
**Maria C. Freire**  
Former President and  
Executive Director of FNIH



**Begoña Carreño**  
Chief Business Development  
and Licensing Officer Vectura  
Fertin Pharma



**Remi Droller**  
Managing Partner KLS Partners



**Javier Garcia**  
General Partner Columbus  
Venture Partners



**Eva Méndez**  
VP Operations, Theriva  
Biologics



**Carlos Plata**  
Research and Development  
Advisor

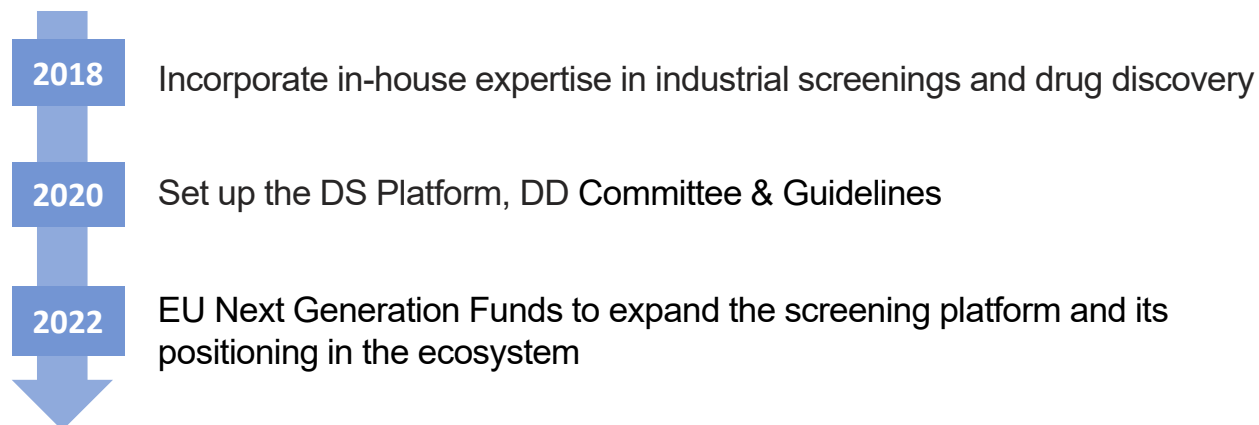


**Joël Jean-Mairet**  
Managing Partner and co-  
Founder Ysios Capital



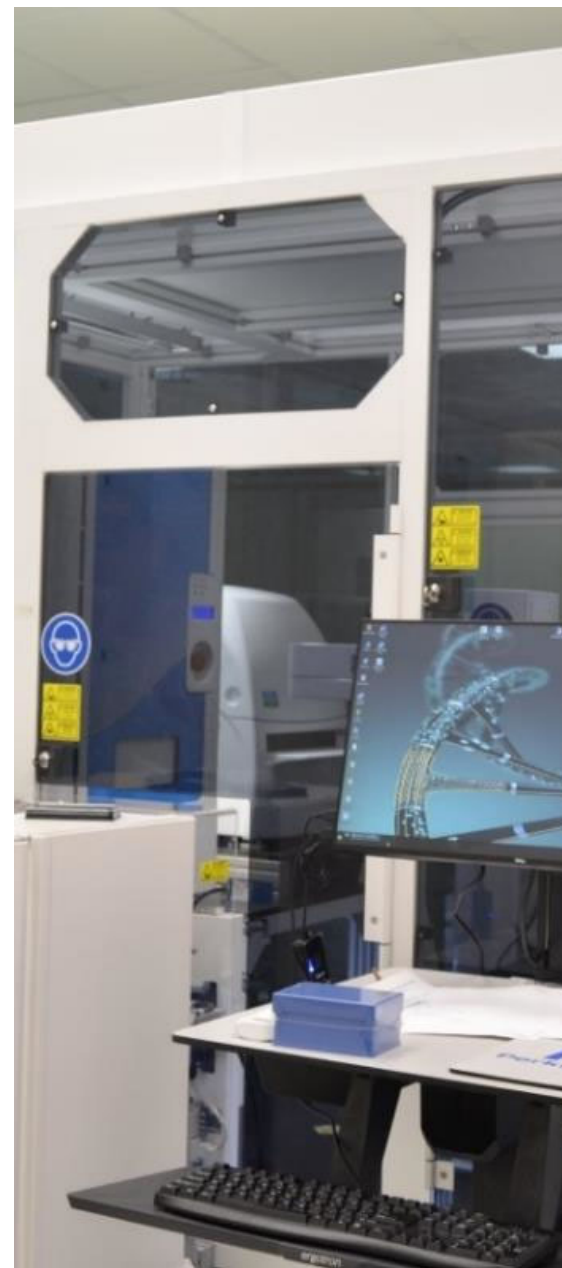
# Drug Screening Platform

## Strategic Actions



## IRB drug screening Platform

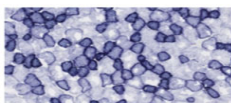
- 160K diverse library of commercial compounds
- Includes 2.4K FDA and 1.8K clinical phase compounds and focus libraries
- Echo650, Hamilton Vantage, Xcelligence and Dianthus pico
- Assay design, Analysis, DDBB and software
- Collaboration with Pharma and Public Institutions



# Cutting-edge Core Facilities

## Singular Core Facilities

### Histopathology



From standard IHC techniques to non-GLP toxicity studies

### Mouse Mutant



Integrated service, from the DNA design to MM breeding

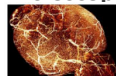
### Drug Screening Platform



High-throughput screening

## IRB cutting-edge Core Facilities & Services

### Advanced Digital Microscopy



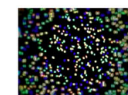
Advanced confocal microscope for high-content screening

### Biostatistics/ Bioinformatics



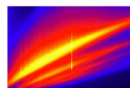
Integrated service in bigdata analysis

### Functional Genomics



Bulk and single-cell genomics and transcriptomics

### Mass Spectrometry & Proteomics



Top down approach. Quantitative Proteomics

### Protein Expression



High-throughput (HTP) cloning and expression screening

### Drosophila Injection



NMR

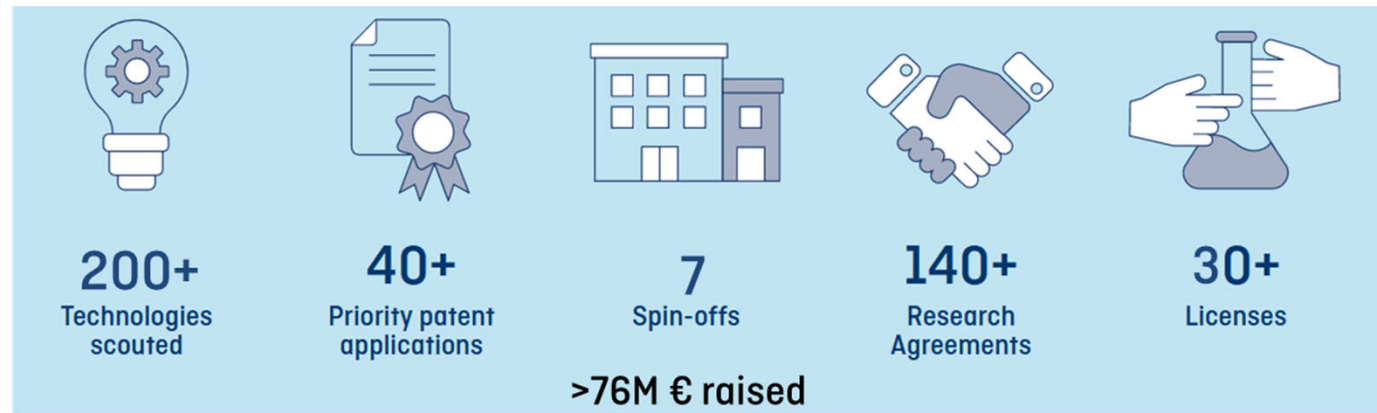
## Shared platforms

- Crystallography
- CryoEM
- Cytometry
- StarLife



*Open to external users*

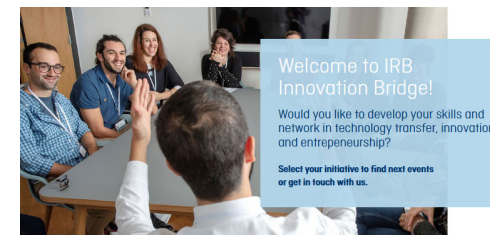
# Innovation numbers



## Active spin-offs



# Promoting Entrepreneurial culture



**FS2B aims to close the gap between scientist and business environment**

- 4.5 Full working days in ESADE Business school
- Workshops with the support of a VC expert
- Extremely positive feedback from participant
- 2020-2023: 4 edition; 15 Participants
- Next edition in October 2024



**ENABLECARES aims to empower young scientists to success in their career**

- EU Funding programme
- 4 Institutions from 4 different countries
- 6 half-day working sessions
- 2020-2023: 2 editions; 19 Participants
- Next edition in 2025



**Bridges aims to promote networking and career opportunities**

- Networking sessions with experts
- 1-3 sessions per year
- 2020-2023: 6 sessions; >160 Participants
- Next edition in July 2024

# Digitalization and Best Practices

## Innovation Department

- ✓ Support the global digitalization project from the business perspective and focus on our innovation activities.
- ✓ Update of Procedures and Regulations.

- CRM



- Migration to Cloud



- Contractual efficiency



- Electronic Laboratory Notebooks (ELN)

### Policies

- Industrial and Intellectual Property Regulations (*last update 2023*)
- Regulations on the Support to the Creation of Companies (*last update 2023*)
- Conflict of Interest (*last update 2022*)

### SOPs

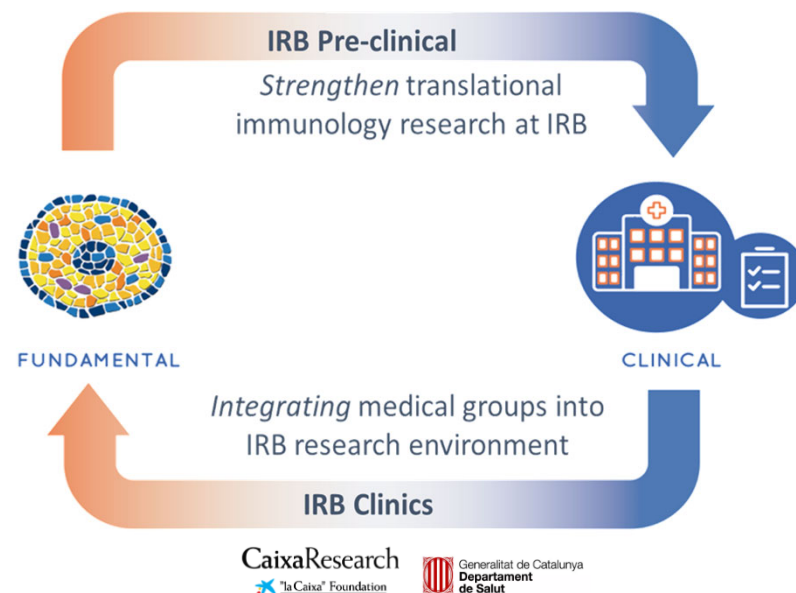
### KTT Best Practices



# Promoting translational activities with hospitals

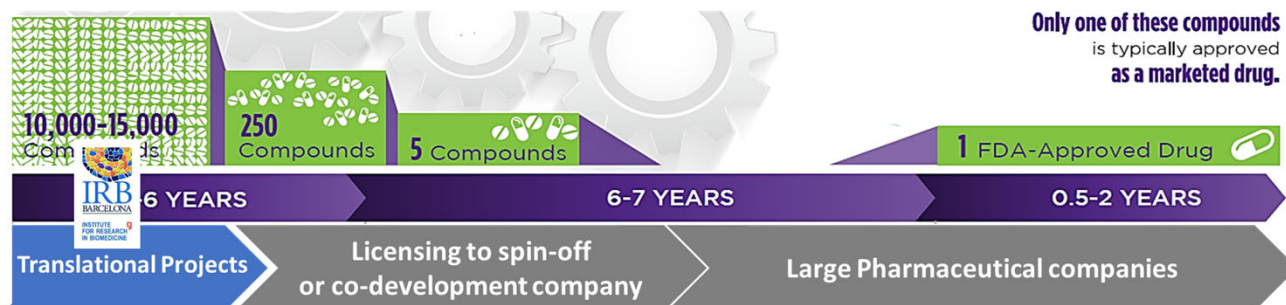
## Expected results from different initiatives:

- **TRIP:** Fostering synergic interaction between IRB and hospitals in Catalonia, with the aim to boost translational research.
- **Incorporation of new GLs:** IRB & second affiliation.
- **TT Networks:** i4KIDS, the Pediatric Innovation Hub (11 groups registered).
- **CGI-Clinics:** Horizon project to bring the CGI tool (interpretation of cancer genomes) to clinical use in precision medicine.





# Promoting new partnerships and entrepreneurship



KNOW-HOW

TECHNICAL  
CAPACITIES

TECHNOLOGIES

## Analysis of patient samples

Analysis of patient samples  
Functional Genomics  
Statistics



## Modelling

Modelling  
AI & HPC  
Structure



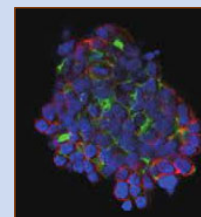
## Drug Design

Screening Platform  
Microscopy  
Protein Expression  
Mss Spectrometry



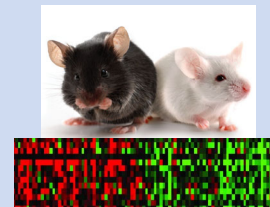
## 3D culture & cellular models

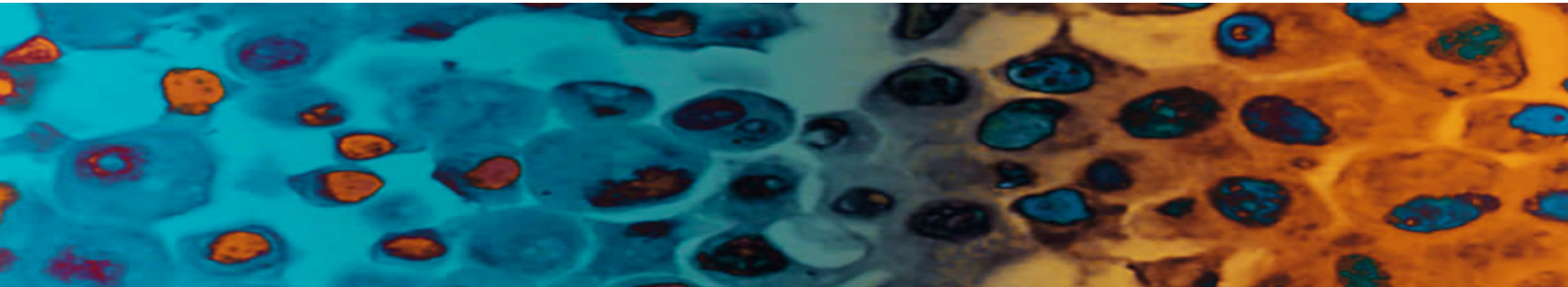
Organoids  
Cellular models



## Preclinical models

Animal models  
Mouse Mutant  
Histopathology





# The medicine of the future starts here

[innovation@irbbarcelona.org](mailto:innovation@irbbarcelona.org)

<http://www.irbbarcelona.org>

 EXCELENCIA  
SEVERO  
OCHOA  
2011, 2015, 2019, 2023

 hr  
HR EXCELLENCE IN RESEARCH

 CERCA  
Centres de Recerca  
de Catalunya

 BIST