

# Wellcome to the Barcelona Biomedical Research Park PRBB



*Institut Hospital del Mar d'Investigacions Mèdiques (IMIM)*

**Hospital del Mar Medical Research Institute (IMIM)**

[www.imim.es](http://www.imim.es)

- Public research center, located at the Barcelona Biomedical Research Park.
- Focus on scientific research in Biomedicine and Health Science, and on training researchers.
- One of the most important biomedical research centers in Spain.
- The largest proportion of work done in international collaborations.



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- > 500 international scientific publications/year (65% of them in journals in the 1<sup>st</sup> quartile of their category).
- There are 5 multi-disciplinary research programs within IMIM:
  - Cancer
  - Epidemiology and Public Health
  - Biomedical Informatics
  - Neurosciences
  - Cardiovascular and inflammatory processes



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- The Cardiovascular and Inflammatory Disorders Program.
  - Collaborative research on the physiopathological, inflammatory, genetic mechanisms epidemiology & public health of cardiovascular diseases.
  - 14 research groups:
    - Cardiovascular Epidemiology and Genetics



# THE REGICOR STUDY

[www.regicor.org](http://www.regicor.org)





# REGICOR Study Area



# REGICOR Study: MI register

- 1978 - > Hospitalary MI register (25-74 y).
- 1990 - 2009 > Population based MI register (MONICA associated member).
- 1996 - > Biological samples collection:
  - In the reference hospital (~90% of the MI cases of the area)
  - Participation rate is very high (~97% of the cases)
  - Currently ~ 2000 MI cases included.
- These studies are still on going.



# **REGICOR Study: population based cross-sectional surveys/cohort**

- 1994-1995 > First cross-sectional study: n= 1748 (25-74 y).
- 1999-2000 > Second cross-sectional study: n= 3056.
- 2004-2006 > Third cross-sectional study: n= ~6500.
- Follow-up of these cohorts by December 2013.
- Cardiovascular risk functions:
  - Calibration - Validation





# REGICOR Study: genetic epidemiology

- Study of the genetic architecture of CAD and cardiovascular risk factors.
  - SNP/CNV: Genome-Wide Association Studies
  - Methylation: Epigenetic-Wide Association Studies
- Mendelian randomization studies.
- Value of genetic markers in the prediction of cardiovascular diseases.



