



**RESEARCH TOPIC DASME3
RISK-IT
Curriculum DASME Standard**

Research Area

Cardio

Laboratory name and address

Molecular cardiology

Datascience Supervisor

Simone Serio; Luca Mainardi (Politecnico Milano)

Research Supervisor

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Abstract

The candidate's project will focus on the integration between genetics, imaging and clinical data for building a risk score for the prediction of cardiovascular events in the general population. The minimal task of the candidate will be to generate a multiparametric risk score per each recruited individual participating to the study approved by the Ministry of Health project named RISK-IT for the Humanitas site; the candidate will work as a part of the team that includes clinicians, study nurses and data managers.

Main technical approaches

Theoretical knowledge on big data analysis, machine learning, with focus on data integration and fusion, is required, as the task of the candidate is related to the multiparametric data integration (including, but not limited to, bioinformatic analysis of the human genome) for generating a risk assessment score, to be implemented in the clinics.

Scientific references

<https://www.nature.com/articles/s41591-024-02796-z>

[Nat Cardiovasc Res.](#)

[10.1038/s44161-022-00154-1](https://doi.org/10.1038/s44161-022-00154-1)

<https://www.nature.com/articles/nrg.2016.160>



Type of contract

Scholarship of € 25.000 gross per year awarded by Istituto Clinico Humanitas. This sum is subject to IRPEF income tax and exempt from social security contributions.

Borsa di studio pari a € 25.000 annui lordi erogata da Istituto Clinico Humanitas. Importo soggetto a tassazione IRPEF ed esente da contribuzione previdenziale.