

PhD in DATA ANALYTICS AND DECISION SCIENCES -41st cycle

THEMATIC Research Field: AI METHODS FOR MOLECULAR DATA ACROSS SCALES

Monthly net income of PhDscholarship (max 36 months)

1750.0

In case of a change of the welfare rates during the three-year period, the amount could be modified.

Context of the research activity	
Motivation and objectives of the research in this field	Current technologies allow to profile the content of cells from human tissues at unprecedented resolution. At HT we combine 'spatial transcriptomics', the readout of RNA molecules across cells in a tissue, with high-resolution microscopy that sees proteins and subcellular structures. Here we aim at developing new AI methods, including foundation models, to integrate molecular and imaging data across scales from evolving biological systems.
Methods and techniques that will be developed and used to carry out the research	The student will employ the latest Machine Learning methods for data integration, high-throughput multi-omics data, and bioimage analysis.
Educational objectives	To learn how to design AI methods for real biomedical problems.
Job opportunities	Jobs in AI and biomedical sciences.
Composition of the research group	1 Full Professors 0 Associated Professors 0 Assistant Professors 4 PhD Students
Name of the research directors	Francesca Ieva (Polimi)/Florian Jug (HT)

Contacts Prof. Francesca leva: francesca.ieva@polimi.it Scheda Docente: https://onlineservices.polimi.it/manifesti/manifesti/controller/ricerche/RicercaPerDocenti

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Dr. Florian Jug: florian.jug@fht.org https://humantechnopole.it/en/research-groups/jug-group/

Additional support - Financial aid per PhD student per year (gross amount)		
Housing - Foreign Students		
Housing - Out-of-town residents		

Scholarship Increase for a period abroad		
Amount monthly	875.0 €	
By number of months	12	

Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information

List of Universities, Companies, Agencies and/or National or International Institutions that are cooperating in the research:

Fondazione Human Technopole

Additional support

Educational activities (purchase of study books and material, funding for participation in courses, summer schools, workshops and conferences):

financial aid per PhD student per year:

1st year: max 2.378,02 euro per student

2nd year: max 2.378,02 euro per student

3rd year: max 2.378,02 euro per student

Teaching and lab assistantship: availability of funding in recognition of supporting teaching and lab activities by the PhD student.

Further support is available for students who engage in activities of teaching or additional lab duties coherent with their academic mission and doctoral training.

The PhD student is encouraged to take part in these activities, within the limits allowed by the regulations.

Computer availability:

1 st year:individual use

2 nd year: individual use

3 rd year: individual use

Desk availability:

1 st year:individual use

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2 nd year: individual use 3 rd year: individual use