

RESEARCH ACTIVITY SHEET

2025 PhD selections

YOUR DETAILS

* Name & Surname

Andrea Ballbio, Mirko Cortese, Maria Antonietta De Matteis, Chiara Di Malta, Brunella Franco, Luis Galiotta, Paolo Grumati, Diego Medina, Gennaro Napolitano, Roman Polishchuk, Carmine Settembre, Leopoldo Staiano

* Affiliation - TIGEM, Telethon Institute of Genetics and Medicine

PHD PROJECT DETAILS

Molecular and cellular biology

* Title of the proposed project

Researching rare genetic disorders with Molecular and Cellular Biology approaches allows us to understand the behaviour of individual diseased cells and unravel the mechanisms which arise from genetic defects.

The overall aim of this area is to understand disease mechanisms by looking at cellular organization at the morpho-functional level: how different cell types accomplish their individual tasks, how these different cells cooperate to form tissues and systems, and how mutations in disease genes may alter these functions.

The final objective is to provide improved management of genetic diseases and therapeutic tools. Techniques used in this area include, but are not limited to, genetic analysis, protein and lipid biochemistry, developmental biology, yeast cell biology, and molecular pharmacology. We use these techniques to study trafficking and sorting of proteins and lipids, organelle biogenesis and regulation, and signal transduction

* Short description of the project (up to 300 words)

* Indicate the main research area for the project described above -

If needed indicate a second research area for the project described above -

1. Molecular and Cellular Biology
2. Genetic disorders
3. Therapeutic tools

* Provide up to 3 key words for project:

YOUR LABORATORY ACTIVITIES DETAILS

Andrea Ballbio, Mirko Cortese, Maria Antonietta De Matteis, Chiara Di Malta, Brunella Franco, Luis Galietta, Paolo Grumati, Diego Medina, Gennaro Napolitano, Roman Polishchuk, Carmine Settembre, Leopoldo Staiano

<https://www.tigem.it/research/research-faculty>