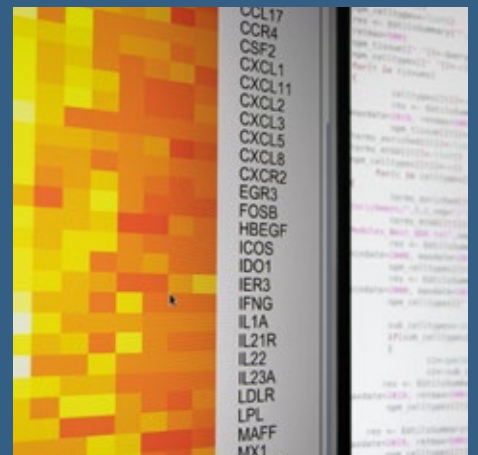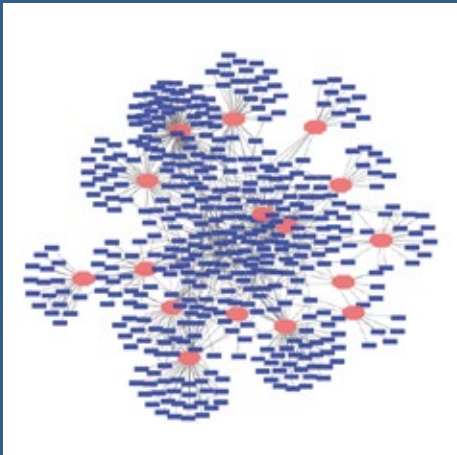# Advanced Data Analysis Group @ Ri.MED

The Advanced Data Analysis group integrates different layers of expertise: from Wet Lab to Omics data analysis with focus on biological complex systems.

Fondazione Ri.MED

FOCUS

- The molecular aspects of aging, cancer and degenerative diseases
- Understanding the role of non-coding RNA (microRNA and long non coding RNA)
- Alternative splicing and its modulation

AIMS

- Analysis and interpretation of biological big data
- Omics data analysis through customized algorithms
- Discovery novel biomarkers and pathways
- Design of RNA-based therapeutics through machine-learning based approaches

EXPERTISE AND RESOURCES

- Molecular biology, Genetics, Systems biology
- Bulk and single cell RNAseq data analysis, Genomics, Epigenomics, Transcriptomics, Metagenomics
- Statistics, Bioinformatics, Machine Learning, Complex Systems, Network analysis
- Long-read Next Generation Sequencing (Oxford Nanopore Technologies)
- R, Python, Matlab, Galaxy

OUTCOME

- Yearly production of scientific papers in international journals
- Development of bioinformatics web tools
- Active collaborations with international academic and industrial partners

COLLABORATIONS

- University of Palermo, Palermo, Italy
- National Research Council (CNR), ITA
- IRCSS ISMETT, Palermo, Italy
- University of Pittsburgh, PA, US

Fondazione Ri.MED

Advanced Data Analysis Group

c/o ATeN Center, University of Palermo,
Via Filippo Marini 14, 90128 - Palermo

Principal Investigator: Claudia Coronnello, PhD
ccoronnello@fondazionerimed.com