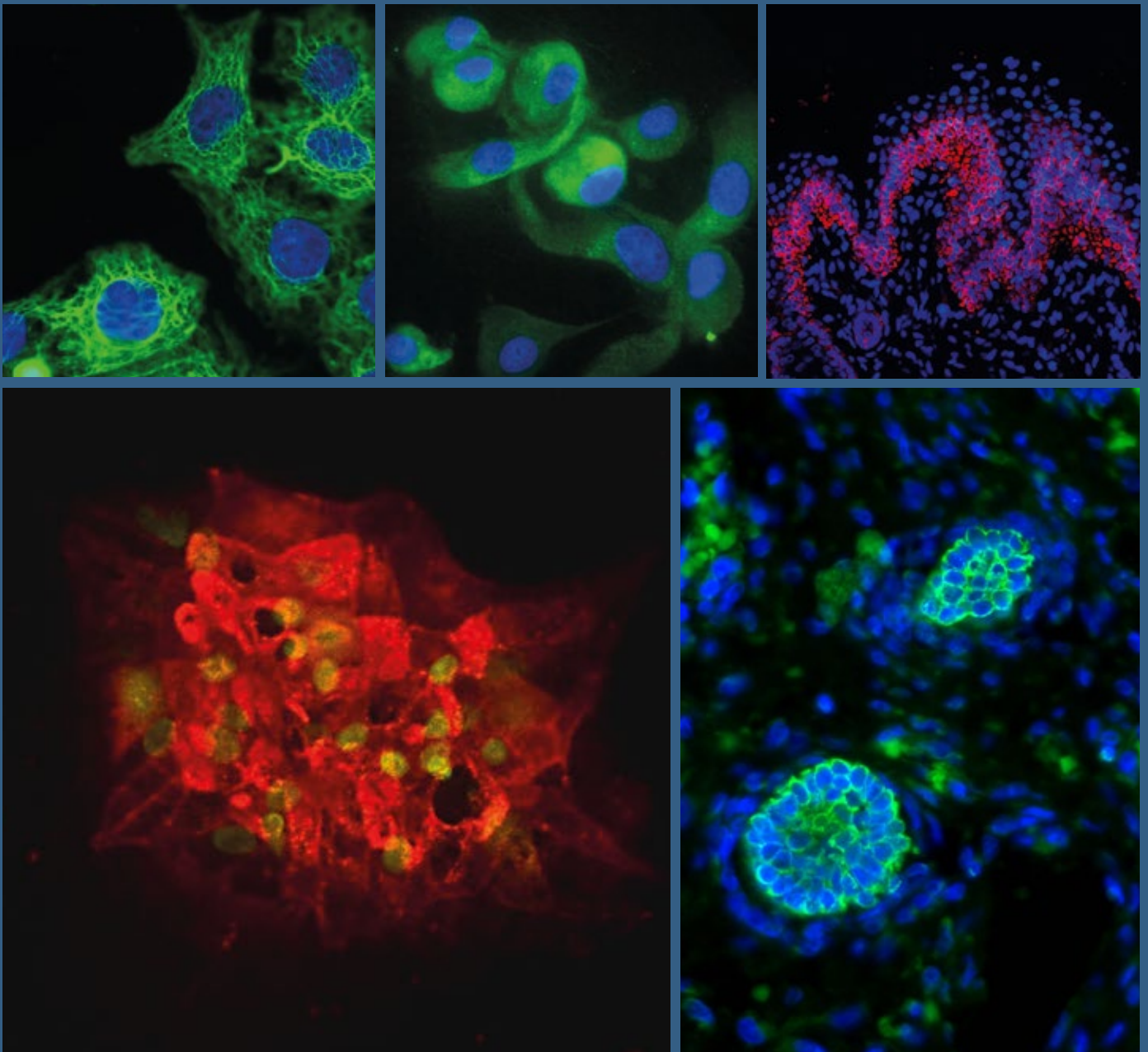


Regenerative Medicine Cell Therapy Group @ Ri.MED

The Regenerative Medicine Cell Therapy group is engaged in developing strategies based on cell secreted factors to restore/improve organ function after a damage. The approach relies on the role of cell secretome as a new booster for regenerative medicine, encompassing the extracellular vesicles (EVs), which are considered next generation therapeutics.





FOCUS

- Identifying the best therapeutic agent by comparing secretome/EVs of different sources
- Creation of master cell banks according to GMP standards
- Manufacturing of secretome/EVs according to GMP standards
- Design and production of secretome/EV-laden biomaterials
- *In vivo* preclinical tests of efficacy and safety



AIMS

- Developing treatment options for chronic skin wounds
- Developing treatment options for NAFLD/NASH
- Improving the efficacy of secretome/EV therapeutics by providing scaffold biomaterials



OUTCOME

- Produced a secretome-laden hydrogel for skin ulcer treatment (*in vivo* proof-of-concept of efficacy)
- Leading a funded research activity (development of EV therapeutics) within the National Center for Gene Therapy and Drugs based on RNA Technology
- Stabilized external scientific collaborations



EXPERTISE AND RESOURCES

- Isolation, culturing and banking of human mesenchymal stromal cells (MSCs)
- Collection and characterization of secretome/EVs
- *In vitro* cell-based functional assays
- Immunoassays
- Molecular biology
- Histology and cell imaging
- Tuning biomaterial properties with cell secreted factors



COLLABORATIONS

- The Mediterranean Institute for Transplantation and Advanced Specialized Therapies (ISMETT), ITA
- Lab of Biocompatible Polymers, Dept STEBICEF, University of Palermo, ITA
- Fondazione IRET, Tecnopolo di Bologna, ITA
- Lab of Translational Research, Dept of Medical Sciences, University of Turin, ITA
- National Center for Gene Therapy and Drugs based on RNA Technology, University of Padova, ITA



Fondazione
Ri.MED

www.fondazionerimed.eu

Regenerative Medicine Cell Therapy Group

c/o The Mediterranean Institute for Transplantation and Advanced Specialized Therapies (ISMETT) - Via Ernesto Tricomi 5 - 90127, Palermo, Italy

Principal Investigator: Cinzia Chinnici, PhD
cchinnici@fondazionerimed.com