UNIVERSITA' DEGLI STUDI DI NAPOLI FEDERICO II

Dottorato di ricerca in
Medicina Molecolare e Biotecnologie Mediche

Linee di ricerca disponibili per le borse di Dottorato del ciclo 42°
(tutte prevedono un periodo di ricerca da svolgersi all'estero):

Rosario Avolio
Uncovering new vulnerabilities of ovarian cancer pharmaco-resistance via unbiased identification of RNA-binding proteins.

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Francesca Carlomagno
Role of NCOA4 in controlling iron metabolism and ferroptosis.

- Federico G, Carrillo F, Dapporto F, Chiariello M, Santoro M, Bellelli R, Carlomagno F. NCOA4 links iron bioavailability to DNA metabolism. Cell Rep. 2022 Aug 16;40(7):111207.
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Immacolata Castellano
Marine-derived sulfur-containing amino acids as novel and eco-safe protective molecules against oxidative stress and inflammation-induced damage.

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Maria Rosaria Catania
Alternative antimicrobial strategies and antibiotic-resistance breakers: searching for new antimicrobial compounds and strategies to restore the susceptibility of clinically relevant microorganisms to conventional antimicrobials.

- Napolitano F, Roscetto E, Fabozzi M, Aversa M, Formisano P, Catania MR, Montuori N. The antimicrobial potential of the secretome from Wharton's jelly mesenchymal stem cells in the context of regenerative medicine: an in vitro study. Front Immunol. 2026 May 5;17:1818127.
- Santaniello A, Roscetto E, Galdiero U, Pepe P, Bosco A, Boccino I, Dipineto L, Catania MR, Grieco P. Antimicrobial Activity of Bioactive Peptides on Resistant Enterobacteriaceae and the Viability of Giardia duodenalis Cysts Isolated from Healthy Dogs. Vet Sci. 2026 Jan 3;13(1):44.
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Fabio Cattaneo

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Armando Cevenini

Multi-omic biomarkers and molecular signatures for precision monitoring of childhood hypoglycemia associated with inherited metabolic disorders.

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Gerolama Condorelli

Development and characterization of selected aptamers targeting pancreatic cancer cells and cancer-derived extracellular vesicles to identify novel biomarkers for liquid biopsy and innovative therapeutic strategies against PDAC progression and drug resistance.

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Massimo D'Agostino

Translocation inhibitors to counteract ATZ toxic accumulation.

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Pasqualino de Antonellis

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Paola De Candia

REgulatory T cell-derived extracellular VEsicles: elucidate the biology to tailor their therapeutic potentiAL (REVEAL).

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Maria Donata Di Taranto

Unravelling genetic mechanisms and biochemical alterations characterizing patients with inherited dyslipidemias and high cardiovascular risk.

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Gabriella Esposito
Retinal disorders as primary targets of innovative therapies for treatment of rare genetic diseases characterized by nonsense mutations.
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Raffaella Faraonio
The Nrf2 and p53 redox-related pathways: unraveling the bidirectional cross-talk with non-coding RNAs. From molecular mechanisms to cancer and age-related pathologies.
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Antonio Feliciello
Targeting cAMP and ubiquitin signaling offers novel therapeutic strategies for GBM treatment.
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Veronica Ferrucci
Decoding immunometabolic and innate immune circuits in pediatric central and peripheric nervous system tumors.
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Giulia Frisso

Precision medicine in hypertrophic cardiomyopathy: combining clinical, genetic, and advanced multi-omics profiling of peripheral blood biomarkers to stratify risk and assess outcomes.

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Mario Galgani

Investigating T Cell Immunobiology and Immune Tolerance in Autoimmune Disease Pathogenesis.

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Antonella Izzo

Understanding Neurodevelopmental Alterations in Down Syndrome Through Gene Dosage Modulation in Trisomic iPSCs.

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Paolo Maiuri

Mechanobiology of Cancer Cell Locomotion: Investigating How Mechanical Stress Induces Amoeboid Migration to Promote Efficient Cancer Dissemination and Metastatic Colonization.

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Massimo Mallardo

The role of STING in neuroinflammation and role neural differentiation.

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Giuseppe Merla

TRIM8 nuclear condensates via liquid-liquid phase separation (LLPS) underlie the pathogenic mechanism in human cancers and the neuro-renal FSGSNEDS syndrome.

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Marcello Moccia

Biomarkers' discovery and translation to clinical practice for the diagnosis, prognosis and treatment of neurodegenerative and neuroinflammatory diseases of the central nervous system.

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Simona Paladino

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