POSTDOCTORAL POSITION

Istituto di Ricerche Farmacologiche Mario Negri IRCCS

The Istituto di Ricerche Farmacologiche Mario Negri IRCCS is seeking a postdoctoral researcher to join the project described below, funded by the Italian Fund for Science (FIS) through a Starting Grant.

Research location

Neuroscience Department, Laboratory of Muscle Pathophysiology, Istituto di Ricerche Farmacologiche Mario Negri IRCCS, Milan, Italy.

Scientific supervisor

Dr Andrea David Re Cecconi, Principal Investigator

Laboratory Head: Dr. Rosanna Piccirillo

Project identification

Project title: “Exploring the Dual Role of Musclin Against Muscle and Bone Wasting in Cancer”

Funding programme: Italian Fund for Science (FIS) – Starting Grant (2026–2031)

Project code: FIS-2024-03891

CUP: D53C25002300001

Position and research activities

Project overview: Cancer cachexia is a severe syndrome affecting up to 80% of patients with advanced cancer and is characterized by progressive loss of muscle and bone mass. Effective treatments targeting the underlying mechanisms of this condition remain limited.

The project focuses on musclin, a myokine involved in musculoskeletal homeostasis, whose circulating levels are reduced early during cachexia. Preliminary data have identified the musclin–Npr3 axis as a promising therapeutic target.

We have developed a stable musclin-derived peptide (MP-D) with anti-atrophic and anti-osteoclastogenic activity. The project aims to optimize MP-D and evaluate its efficacy in in vitro and in vivo models of cancer cachexia and bone metastasis, with the long-term goal of developing a novel therapeutic strategy and a potential biomarker.

The postdoctoral researcher will:

- Contribute to peptide optimization and functional validation.
- Perform in vitro experiments using muscle and bone cells.
- Conduct in vivo studies in mouse models.

Duration and funding

Expected start date: 1 February 2027.

The position is supported by an FIS Starting Grant running from 2026 to 2031 (project FIS-2024-03891), with funding available until March 2031.

Annual gross salary: approximately €26,000.

Candidate requirements

- PhD in biomedical sciences, pharmacology, biotechnology or a related field.
- Experience in cell culture, including C2C12 myoblasts and tumour cells.
- Experience with laboratory animals, including handling of mouse models of cancer cachexia, muscle and tissue dissection, and IVIS and micro-CT imaging.
- Experience with assays measuring protein synthesis and degradation using radioactive tracers.
- Strong motivation and interest in translational research.

Application procedure

Interested candidates are invited to contact the Principal Investigator to arrange an introductory interview.

Please send your application and CV to:

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Rosanna Piccirillo – rosanna.piccirillo@marionegri.it | Tel. +39 02 3901 4371

Application deadline: to be specified.