Call Code: ASS-RIC/46_24

Departmental Faculty	Faculty of Medicine and Surgery
Research theme	Analysis of the pathways involved in the action of anti-MDA5 antibodies: impact on innate immunity and fibroblasts
Brief description of the research	Melanoma Differentiation Antigen 5 (MDA5) is a cytosolic intracellular pattern recognition receptor involved in the innate immunity towards viruses, recognizing long double stranded RNA (dsRNA) and activating type I interferon and NF-KB pathways. Anti-MDA5 antibodies are markers of a specific myositis subset that may present with an often refractory and fatal lung manifestation (Rapidly Progressive Interstitial Lung Disease, RP-ILD). The project addresses the function of single anti-MDA5 antibody specificities targeted onto MDA5 epitopes and of ferritin in different in vitro models, focusing on the effect on type I interferons and NF-KB pathways. The possible activity of anti-MDA5 antibodies in fibrosis-related and angiogenesis-related molecules expression by fibroblasts will be assessed (also using -omic approaches), as well as their potential to induce fibroblast-to-myofibroblast transition and to affect fibroblasts-macrophages interactions.
Scientific Supervisor	Dott. Luca Navarini
Scientific Disciplinary Sector	MEDS-09/C - Rheumatology
Duration of contract	12 months
Annual gross amount	19.367,00
Economic coverage	Finanziato con fondi del progetto "The PIANO project, Pathways Involved in the action of Anti-MDA5 antibodies: impact On innate immunity", responsabile scientifico il dott. L. Navarini, finanziato dal Ministero dell'Università e della ricerca nell'ambito del bando "PRIN: PROGETTI DI RICERCA DI RILEVANTE INTERESSE NAZIONALE – Bando 2022 Prot. 20224H9JW9", CUP C53D23000560001 e con fondi UCBM.
Admission qualifications	University degree (as per the Old Italian System) in Biological Sciences, Biotechnology Pharmaceutical Biotechnology, Biotechnology Industrial Biotechnology, Medicine and Surgery or Specialist/Master's Degree in Biology, Human Nutrition Sciences, Industrial Biotechnology, Medical, Veterinary and Pharmaceutical Biotechnology, Medicine and Surgery as per Ministerial Decrees No. 509/1999 and No. 270/2004
Language knowledge and skills	English B2
Date of the interview	**24th February 2025, at 12:00 p.m.** Remote candidates on Microsoft Teams platform

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