Exploring the Mycobacterium tuberculosis antigenome: New insights for the development of vaccines, diagnostics and drugs

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List of Publications

1. Comprehensive overview of autoantibody isotype and subclass distribution. Accepted for publication. J Allergy Clin Immun. Volkov M., Coppola M, et al.
2. The *In Vivo* Transcriptomic Blueprint of *Mycobacterium tuberculosis* in the Lung. 2020 Feb. Front Immunol. Coppola M and Ottenhoff THM.
3. *In vivo* expressed *Mycobacterium tuberculosis* antigens recognised in three mouse strains after infection and BCG vaccination.2021 Jun. NPJ Vaccines. Coppola M, et al.
4. Cell-Mediated Immune Responses to *in vivo*-Expressed and Stage-Specific *Mycobacterium tuberculosis* Antigens in Latent and Active Tuberculosis Across Different Age Groups. 2020 Feb. Front Immunol. Coppola M, et al.
5. Genome wide approaches discover novel *Mycobacterium tuberculosis* antigens as correlates of infection, disease, immunity and targets for vaccination. 2018 Oct. Semin Immun. Coppola M and Ottenhoff THM.
6. Vaccines for Leprosy and Tuberculosis: Opportunities for Shared Research, Development and Application. 2018 26. Front Immunol. Coppola M, et al.
7. Differences in IgG responses against infection phase related *Mycobacterium tuberculosis* (*Mtb*) specific antigens in individuals exposed or not to *Mtb* correlate with control of TB infection and progression. 2017 Sep. Tuberculosis (Edinb). Coppola M, et al.
8. New Genome-Wide Algorithm Identifies Novel *In Vivo* Expressed *Mycobacterium Tuberculosis* Antigens Inducing Human T-Cell Responses with Classical and Unconventional Cytokine Profiles. Sci Rep. 2016 Nov. Coppola M, et al.
9. Synthetic Long Peptide Derived from *Mycobacterium tuberculosis* Latency Antigen Rv1733c Protects against Tuberculosis. Clin Vaccine Immunol. 2015 Sep. Coppola M, et al.
10. Clonal analysis of the T-cell response to *in vivo* expressed *Mycobacterium tuberculosis* protein Rv2034, using a CD154 expression based T-cell cloning method. PLoS One. 2014 Jun 6. Commandeur S, Coppola M, et al.
11. Multi-functional flow cytometry analysis of CD4+ T cells as an immune biomarker for latent tuberculosis status in patients treated with tumour necrosis factor (TNF) antagonists. Clin Exp Immunol. 2014 Jun. Sauzullo I, Scrivo R, Mengoni F, Ermocida A, Coppola M, Valesini G, Vullo V, Mastroianni CM.
12. Use of a contact center telephone helpline in rheumatology outpatient management: a five-year experience analysis and patients' perception. Mod Rheumatol. 2014 Jul Scrivo R, Priori R, Coppola M, Minniti A, Brandt J, Picarelli G, Cruciani V, Luzi P, Valesini G.

13. Mycobacterial Interferon-γ Release Variations During Longterm Treatment with Tumor Necrosis Factor Blockers: Lack of Correlation with Clinical Outcome. J Rheumatol 2012 Dec 1. Scrivo R, Sauzullo I, Mengoni F, Priori R, Coppola M, Iaiani G, Di Franco M, Vullo V, Mastroianni CM, Valesini G.

About the Author

Mariateresa Coppola was born in 1988. After receiving her high school diploma in 2006, she was admitted to the Medical Faculty of Rome, La Sapienza. On top of the mandatory classes, she signed up for several elective clinical internships in different specialties, including internal medicine, oncology, and immunology. In her exchange year in Barcelona, she worked in different labs in the fields of cognitive neuroscience, liver surgery, and infectious disease. She wrote a thesis on latent tuberculosis infection in rheumatoid arthritis patients treated with immunosuppressive drugs. After receiving her medical degree cum laude, she started her doctoral research with Prof. Tom Ottenhoff and Prof. Annemieke Geluk (Department of Infectious Disease, Leiden). Her scientific world expanded: new lab skills, research questions, challenges, interactions with inspiring scientists, and three scholarships to present her work in Santa Fe (LUF grant), Boston (Vaccine Renaissance Scholarship for Women), and São Paulo (Advanced School on Vaccines). This thesis describes the results of her PhD experience.

In 2019, she joined the group of Prof. Reina Mebius (MCBI, Amsterdam), where she has been focusing her research on characterizing B and follicular T helper cell responses across auto-immune disorders, inborn errors of immunity, and cancer. Besides her research project, she helped setting-up a national symposium (within the TargetToB consortium), high dimensional analysis meetings (MCBI), and a scientific retreat (CCA, Amsterdam), among others. Since she believed that climate change is among the most urgent problems humanity faces, she joined the Core Team of the MCBI green team to promote green actions in labs. Recently, well-fitting her scientific passions, she started a collaboration with Prof. Maria Yazdanbakhsh, aiming to unravel the basis underlying vaccine immune hypo-responsiveness and find ways to reverse it.

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