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Exploring host and pathogen biomarkers for leprosy

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Curriculum vitae

Maria Tió Coma was born on the 4th of June 1993, in Gelida. In 2011, she started her Bachelor studies in Microbiology at the Autonomous University of Barcelona. During her Bachelor's degree, she obtained a personal collaboration grant from the Spanish Ministry of Education to join the laboratory of Dr. Artur Xavier Roig and Dr. Ramón Gervilla at the Department of Animal and Food Sciences, where she worked on the evaluation of Ultraviolet C light (UVC) and Ultra High-Pressure Homogenization (UHPH) to inactivate *Alicyclobacillus acidoterrestris* spores in apple juice. Due to her strong interest in Molecular Biology, in 2016 she started a Master in Molecular Biotechnology at the University of Barcelona. During her Master studies, she obtained an Erasmus+ grant to perform an internship at the Department of Experimental Virology at Amsterdam Medical Center, under the supervision of Dr. Lia van der Hoek. The topic of the Master's thesis was to develop a protocol to identify and characterize new viruses transmitted by insect vectors using Next Generation Sequencing to aid in the identification of the cause of Nodding Disease. In May 2017, she started her PhD studies at the Leiden University Medical Center in the group of Prof. Annemieke Geluk with the aim to identify pathogen and host biomarkers for leprosy in a leprosy endemic area in Bangladesh. The results of her studies have been published in international scientific journals and are described in this thesis. In 2021, she decided to use her scientific background to advice and help other scientists and technicians as a Technical Support Specialist.

List of publications

1. **Tiό-Coma M**, Wijnands T, Pierneef L, Schilling AK, Alam K, Roy JC, Faber WR, Menke H, Pieters T, Stevenson K, Richardus JH, Geluk A. Detection of *Mycobacterium leprae* DNA in soil: multiple needles in the haystack. *Sci Rep*. 2019 Feb 28;9(1):3165.
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9. **Tiό-Coma M**, Kielbasa SM, van den Eeden SJF, Mei H, Roy JC, Wallinga J, Khatun M, Soren S, Chowdhury AS, Alam K, van Hooij A, Richardus JH, Geluk A. Blood RNA signature RISK4LEP predicts leprosy years before clinical onset. *EBioMedicine*. 2021 Jun;68:103379.

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