

Advancing host-directed therapy for Mycobacterium avium infection: identification of drug candidates and potential host targets

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## **STELLINGEN**

## behorende bij het proefschrift

## Advancing host-directed therapy for *Mycobacterium avium* infection: identification of drug candidates and potential host targets

- 1. Given the intracellular nature of *Mycobacterium avium* (*Mav*), drug screenings should incorporate cell-based infection models in addition to the broth-based systems currently recommended by guidelines (this thesis, chapter 3).
- 2. Repurposing clinically approved drugs represents a promising strategy to develop host-directed therapy (HDT) for *Mav* infection, though further optimization is required for clinical applicability (this thesis, chapter 4 and 5).
- 3. Understanding the mechanism of action of a HDT compound is crucial before progressing it as a therapeutic option for *Mav* infection (this thesis, chapter 5).
- 4. During early *Mav* infection, macrophage transcriptomic responses are shaped by both intrinsic host immune activation and bacterial factors or pathogen-specific modulation (this thesis, chapter 6).
- 5. HDT only serves as an adjunct to antibiotics and is not a substitute as a standalone treatment.
- 6. Systemic administration of therapeutics for mycobacterial lung infections, such as oral or intravenous delivery, is generally preferred over local administration in clinical practice.
- 7. Non-tuberculous mycobacterial (NTM) infections and disease should be mandatorily reported to public health authorities, as is currently the case for *Mycobacterium tuberculosis*.
- 8. Traditional sputum culture-based diagnostics are insufficiently sensitive for early detection of NTM, underscoring the need for host-response biomarkers in clinical practice.
- 9. Acknowledging our ignorance is the first step toward genuine understanding.
- 10. Science literacy belongs in every classroom, not just the lab (adapted from Neil deGrasse Tyson).
- 11. Effort without immediate success is not a dead end; it is a side path that enriches the journey with growth toward real achievement (adapted from SpongeBob SquarePants 2018).