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Leiden

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Quantitative pharmacology approaches to inform treatment strategies against tuberculosis

Mehta, K.

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Stellingen behorende bij het proefschrift

Quantitative Pharmacology Approaches to Inform Treatment Strategies Against Tuberculosis

1. Quantification of target site drug exposures is essential to employ precision dosing to ensure optimal anti-tuberculosis treatment outcome. *This thesis*
2. Model-based frameworks are ideal to compile the findings from various data sources into a decision-making framework. *This thesis*
3. Quantitative systems pharmacology approaches can help guide design and development of host-directed therapies against tuberculosis. *This thesis*
4. To eradicate TB in the future, treatment approaches should consider not only treatment of drug-resistant TB but also prevention of resistance development. *This thesis*
5. Advanced in vitro experimental models, such as hollow-fiber infection models, microphysiological systems, and organ-on-chip, combined with quantitative systems pharmacology models are valuable tools for predictions of efficacy and safety of new therapeutics. *Low et al., 2021, Nat Rev Drug Discov 20, 345–361*
6. Quantitative disease platforms can shift currently reactive drug development process to proactive. *Stern et al., 2016, SLAS Discovery, volume 21, issue 6, 521–534.*
7. The sustainable resolution of multifaceted diseases such as tuberculosis necessitates collaborative efforts among multiple institutions and stakeholders. *Uplekar et al., 2015, Lancet, 2015, 385 (9979), p1799-1801*
8. The potential of harnessing the host immune response for treating tuberculosis is yet under-explored, representing a promising avenue for further exploration. *Wallis et al., Nat Rev Immunol, 2015, 255–263*
9. “Live and let live, be one with all” can help attain a serene and sustainable world. *Jainism philosophy*
10. “Intellectual learning starts at birth and only cease at death”- this is not only relevant for professional growth but also for personal growth. *Adapted from Albert Einstein*