Optimizing levofloxacin dose in the treatment of multidrug-resistant tuberculosis

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This PhD project was first conceived in 2014 during my master’s second research internship at the department of clinical pharmacy and pharmacology under the guidance of illustrious supervisor/professor Jan-Willem Alffenaar and bona fide professors: Daan Touw, Tjip van der Werf and Jos Kosterink. The project was nominated for Eric Bleumink Talent Grant in 2015. The project is unique as a collaboration between research-educational/patient-care institutions from two different parts of the world (Netherlands and Nepal) to fight a common public health menace, tuberculosis (TB). While, the Netherlands, due to its innovative approaches of patient-centered care and personalized medicine, was highly successful in managing and treating the difficult-to-treat patients; Nepal was overloaded by high incidence of multi-drug resistant TB cases and its limited capacity in managing such cases due to depleted resources and, nevertheless, was doing the best it could. TB is unequally distributed throughout the globe, with proportionally higher incidence in settings where resources are limited. This project aimed to find ways to optimize the doses of currently used anti-TB drugs (levofloxacin in this case) in the treatment of multi-drug resistant TB and further develop a simple bioanalytic tool to measure concentrations of levofloxacin in saliva.

When I see just one name in the cover of the thesis, my heart sinks because this fruitful journey involved an orchestra of a great many people: my supervisor, learned professors, educational grant providers, flexible collaborators, patients who participated in the clinical study for the common good, loving family and friends, and well-wishers whom I cannot thank enough.

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