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## Quorum Sensing inhibition to battle infectious diseases

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## Stellingen

Behorende bij het proefschrift

# Quorum Sensing inhibition to battle infectious diseases

1. Antibiotics can be found in significant quantities in the environment. The antibiotic crisis cannot be tackled by only stricter guidelines in hospitals, but policies have to be made to abolish the antibiotics pollution in the environment.

2. PvdQ is an integral part of the pyoverdine synthesis pathway but it also acts as a formidable quorum quenching enzyme. We do not know if this double function is by design or coincidental but it shows beautifully how much we still can learn.

3. We are in urgent need of antimicrobial treatments and enzymatic quorum quenching could be an important alternative.

4. The quorum quenching acylase PvdQ shows a biofilm reducing effect against infectious pathogens such as *Pseudomonas aeruginosa* and *Acinetobacter baumannii*. (This Thesis)

5. Enzymatic quorum quenching can serve as a management tool against biofilm formation and surface attachment of pathogenic bacteria. (This Thesis)

6. Compared to other Gram-negative pathogenic bacteria *Acinetobacter baumannii* shows only a small number of virulence factors. A major contributor to its virulence is its persistence.

7. The rise of multi drug resistant bacteria is a global threat and is developing to be one of the biggest challenges for human healthcare in the 21<sup>st</sup> century.

8. For real innovation it should be kept in mind: "The unprepared mind cannot see the outstretched hand of opportunity"

-Alexander Fleming