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Propositions

Controlling the virulence of *Pseudomonas aeruginosa* through inhibiting the synthesis of pyoverdine

Joko Priyanto Wibowo

1. The knock-out of PvdP resulted in the reduction of pyoverdine production and biofilm formation, changes in motilities, and the increase of 3-oxo-C12-HSL (this thesis).
2. The discovery that PvdP can be inhibited by a non-competitive inhibitor opens the possibility to develop a specific compound against *P. aeruginosa* infection, that will not inhibit other tyrosinases including human tyrosinase (this thesis).
3. One crucial step in the early preclinical study of a novel compound is finding suitable animal models that are predictive and reliable (this thesis).
4. *Galleria mellonella* larvae have been used as a predictive animal infection model to mammals for more than 15 years and more specifically, it has been reported in studies on antimicrobial and antivirulence of candidate drugs (this thesis).
5. PvdQ is an important enzyme for the biosynthesis of pyoverdine, therefore it represents an alternative target to develop a treatment strategy in the fight against MDR *P. aeruginosa* strains (this thesis).
6. In the fight against MDR bacteria novel compounds for new targets are very important to provide new drugs in the future. The attenuation of virulence factors with small molecules offers a novel angle on treating bacterial infections (this thesis).
7. Whenever I found out anything remarkable, I have thought it my duty to put down my discovery on paper, so that all ingenious people might be informed thereof (Antonie van Leeuwenhoek).
8. Learn from yesterday, live for today, hope for tomorrow. The important thing is not to stop questioning (Albert Einstein).
9. Conquer the thousands of men may not be called a winner, but being able to conquer yourself is called a brilliant conqueror (Sukarno).
10. Success doesn't belong to smart people but success belongs to those who don't give up (Bacharuddin Jusuf Habibie).