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## Responses of *Staphylococcus aureus* to mechanical and chemical stresses

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## STELLINGEN

Behorend bij het proefschrift  
“Responses of *Staphylococcus aureus*  
to mechanical and chemical stresses”

Vera Carniello

26<sup>th</sup> November, 2018

1. Bacterial adhesion force-sensing and resulting cell wall deformation are triggers for biofilm formation. This thesis
2. Bacteria sense both chemical and mechanical stresses to modulate antibiotic resistance. This thesis
3. Microbial responses to antibiotics should be studied in bacteria adhering on a surface. This thesis
4. Mechanosensitive channels gate upon bacterial adhesion to a surface. This thesis
5. Emergent properties of a biofilm are determined by the physical chemistry of the substratum surface to which the biofilm adheres. This thesis
6. Antimicrobial surfaces need to deactivate efflux pumps and mechanosensitive channels gating in bacteria to avoid biofilm formation.
- 7 Bacteria will find a way to overcome our antibacterial strategies.
8. “Science is organized knowledge. Wisdom is organized life.” Immanuel Kant
9. “An expert is a person who has made all the mistakes that can be made in a very narrow field.” Niels Bohr
10. Science is taking pieces of information and building the puzzle.
11. In order to be satisfied by work, it is necessary to be satisfied by life.
12. Friends are the family we choose, particularly when we live abroad.