

University of Groningen

## New approaches for imaging bacteria and neutrophils for detection of occult infections

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DOI:  
[10.33612/diss.131946200](https://doi.org/10.33612/diss.131946200)

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*Document Version*  
Publisher's PDF, also known as Version of record

*Publication date:*  
2020

[Link to publication in University of Groningen/UMCG research database](#)

*Citation for published version (APA):*  
Auletta, S. (2020). *New approaches for imaging bacteria and neutrophils for detection of occult infections*. University of Groningen. <https://doi.org/10.33612/diss.131946200>

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# Stellingen

1. An infection is usually associated to an inflammation, but the opposite is not true and differential diagnosis between sterile inflammation and infection is often mandatory (*this thesis, chapter 1*).
2. Bacteria do not have a high affinity for antibiotics, nor the binding between the antibiotic and bacteria is specific or receptor mediated. For these reasons, a good radiolabelled probe for imaging bacteria in vivo has not yet been found (*this thesis, chapter 2*).
3. Standardized protocols and consensus guidelines on animal models of infection are highly needed, preferably written by a joint technical committee (*this thesis, chapter 3*).
4. Percutaneous injection of bacteria into implanted sub-dermal Teflon cages, causes a persistent localized infection, with bacteria growing as biofilm and in planktonic phase (*this thesis, chapter 4*).
5. A major improvement for therapy of infections would be to identify, by a simple imaging modality, the bacteria responsible for it, or at least if the infection is caused by Gram negative (Gram-) or Gram positive (Gram+) bacteria (*this thesis, chapter 5*).
7.  $^{99m}\text{Tc}$ -HMPAO-WBC or  $^{111}\text{In}$ -oxine-WBC accumulate with time in infectious foci where a neutrophilic infiltrate predominates as a result of chemotactic attraction through the endothelium (*this thesis, chapter 6*).
8. The availability of a sterile disposable device for ex-vivo WBC labelling, has facilitated the whole procedure, improving safety for the operator and patient and reducing time and costs (*this thesis, chapter 7*).
9. Infections are increasing in frequency and most are diagnosed too late. Prevention and early diagnosis are main medical goals for the new century.
10. Most people say that it is the intellect that makes a great scientist. They are wrong: it is character (A. Einstein).
11. Be less curious about people and more curious about ideas (M. Curie).
12. "*Curiositas*" drives the existence.