

## Improving Sacral Neuromodulation for Lower Urinary Tract and Bowel Dysfunction

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#### Stellingen behorende bij het proefschrift:

# Improving Sacral Neuromodulation for Lower Urinary Tract and Bowel Dysfunction A Translational and Multidisciplinary Approach

#### door Perla Douven

- 1. High Frequency SNM (600-12.500 Hz) has an under researched potential to be clinically effective for patients with voiding dysfunction. *This thesis, Chapter 2*
- 2. A training period to achieve urinary and faecal continence is needed to analyse voiding and defecation behaviour in rodents. *This thesis, Chapter 3 and 4*
- 3. Research into SNM stimulation parameters will result in a more personalized treatment for lower urinary tract and bowel dysfunction. *This thesis, Chapter 6*
- 4. The bladder and urethral pressure responses to alternative stimulation patterns are not solely dependent on total charge, but involve a more complex interplay between individual SNM stimulation parameters. - This thesis, Chapter 6
- 5. Burst SNM, as opposed to conventional SNM, increased bladder pressure in patients with lower urinary tract dysfunction, and this indicates a non-conventional working mechanism. *This thesis, Impact Paragraph*
- 6. Animal models are necessary to investigate a wide range of SNM stimulation parameters beyond those that are clinically validated. *This thesis*
- 7. Not all regulations make animal experiments more ethical. This thesis
- 8. Until man duplicates a blade of grass, nature can laugh at his so-called scientific knowledge. Thomas Edison (1847-1931), Inventor
- 9. The greatest scientists are artists as well. Albert Einstein (1879-1955), Theoretical Physicist
- 10. Measure what can be measured, and make measurable what cannot be measured. Galileo Galilei (1564-1642), Astronomer