

Systematic review: Effect of Growth Factors on Vaginal Wound Healing

Departments: Institute of Molecules and Materials (Faculty of Science) and SYRCLE (RadboudUMC)

Duration: 6 months

14,000 women in the Netherlands undergo reconstructive surgery for Pelvic Organ Prolapse per year. Over the last decade, surgical implants have been introduced to improve the outcomes of POP surgery. However, due to high complication risks, the surgical use of these implants have declined substantially as the FDA has warned about their risks. This emphasizes the huge clinical need in novel tissue engineering-based strategies in treating Pelvic Organ Prolapse.

The goal of this internship is to analyze all available evidence from experimental *in vitro* and animal studies regarding the effects of growth factors on vaginal wound healing. We are looking for an enthusiastic and motivated Master student for approximately 6 months/30 EC with interest in medical biology and/or regenerative medicine who wants to contribute to writing a systematic review. The student will contribute in writing a systematic review regarding the effect of growth factors on vaginal wound healing under daily supervision of a PhD student. The findings of this internship will contribute in writing a systematic review for publication and be used in designing novel growth factor-functionalized hydrogels for future *in vitro* and/or *in vivo* studies.

Research objectives (“what will I be doing?”)

1. Select the eligible studies
2. Summarize the characteristics and results of those papers
3. Define, extract and interpret indicators of study quality and risk of bias
4. Perform meta-analysis on extracted data
5. Interpret the results of the conducted systematic review and formulate directions for future research based on your findings

Learning objectives (“what will I learn from this?”)

1. To critically reflect on the quality of methodological research
2. Systematically assess the available evidence regarding a specific topic
3. To interpret the results and present these data in clear figures and tables
4. To write a scientific report in English and prepare and give an oral presentation in English

For application: Please send your CV and motivation letter to Melissa van Velthoven

(Melissa.vanVelthoven@ru.nl)