

Vacancy #2

PhD student: Efficacy of diagnostic and antimicrobial capacity of smart triggered release systems for medical devices *in vivo*

What are you going to do

STIMULUS is a European Marie Curie Training Network working on reducing healthcare-associated infections. As an early-stage researcher (Ph.D. student) you will be trained for a career in biomaterials by research on smart triggered release systems that can detect, prevent and treat bacterial infections. The STIMULUS consortium unites academia, medical research institutes, policymakers and industry. You can find more information on the STIMULUS consortium and on the selection process on the STIMULUS website at <https://www.stimulus-etn.eu/>.

The diagnostic sensitivity, specificity, and performance for the detection of bacterial species and efficacy of novel antimicrobial systems will be evaluated in *in vivo* systems, in particular in mouse models of skin infection or subcutaneous implant infection. As a PhD student your main tasks and responsibilities are:

- To tailor these models for testing of smart triggered release systems for their diagnostic capacity and triggered release of antimicrobials such as novel antimicrobial peptides.
- Subsequently, you will assess the efficacy of the novel triggered release systems in these models against multi-drug resistant bacteria.
- Since antimicrobial efficacy is also critically dependent on the host immune response, you will perform detailed studies on cellular immune responses, inflammatory mediators such as cytokines and their regulation.
- You will perform part of the research during secondments at Koc University in Istanbul, Turkey, and at Paul Hartmann AG, Heidenheim, Germany.

What we expect from you

We are looking for a highly motivated and enthusiastic creative researcher with:

- A master's degree or equivalent in (micro)biology, (veterinary) medicine or a related field, with a keen interest in infectious diseases and willing to conduct animal (mouse) experiments.
- Experience in microbiology, immunology and/or working with animal models (mice or rat) is considered a strong advantage. Being certified to conduct animal experiments in the EU (FELASA license or equivalent) is highly recommended.
- The ability to work in an international team and to work independently in analysing, interpreting and reporting data.
- Good communication skills and proficiency in English, and the ability to work in a highly multidisciplinary environment are essential.
- In order to be eligible, you should NOT have resided in the Netherlands for more than 12 months during the past 3 years.

Where are you going to work

The Department of Medical Microbiology and Infection Prevention of the Amsterdam UMC - AMC is responsible for clinical diagnostics and infectious disease consultations, (bio)medical education and training, and research and development across the full range of disciplines in medical microbiology, including bacteriology, virology and parasitology. The department is also responsible for the clinical supervision of the microbiology laboratory of the Amsterdam Public Health Service (GGD), responsible for primary care and public health microbiology in Amsterdam.

You will join Dr. S.A.J. Zaat's group within the laboratory of Experimental Bacteriology, in the research line "Biomaterial-associated infection (BAI) and novel antimicrobial strategies". The group focusses on pathogenesis, prevention and rapid diagnosis of BAI and other infections, and the development of novel antimicrobial strategies, in particular of novel antimicrobial peptides. The research involves collaborations with Immunology,



Pathology, and clinical disciplines such as Orthopaedics, Gynaecology, Maxillofacial Surgery, Urology and Intensive Care Medicine. This broad field of research and network offers excellent opportunities to develop your research skills with virtually every necessary expertise close at hand.

What we offer you

We offer you ample opportunity for development, deepening and broadening, additional training and a place to grow! Working at Amsterdam UMC means working in an inspiring and professional environment where development is encouraged in every respect.

- The salary amounts € 2.495,- per month during the first year and increases to € 3.196,- per month during the fourth year (OIO scale), based on a full time working week of 36 hours.
- The base salary does not include allowances for irregular shifts, holiday pay (8%) and a year-end bonus (8.3%).
- We offer an initial contract for 12 months that can be extended (after evaluation) for another 36 months.
- In addition to excellent accessibility by public transport, AMC location also has a sufficient number of parking spaces for employees.
- Pension is accrued at the ABP. Amsterdam UMC contributes a large part of the premium (70%).
- We have a very active staff association and organise various (sports) activities and events throughout the year.

For an overview of all our other terms of employment, see this [link](#). Look under “English version”.

Amsterdam UMC has an open culture. Together we continuously build an environment where everyone feels welcome. To achieve that, we strive to provide equal opportunities for everyone. We therefore cordially invite all interested parties to respond to this vacancy.

Let's meet

You can find more information on the consortium and on the selection process on the [STIMULUS website](#). If you would like to apply, use the ‘apply’ button the [Amsterdam UMC website](#). Please feel free to contact Dr. Martijn Riool via m.riool@amsterdamumc.nl (postdoc) or Dr. Sebastian (Bas) A.J. Zaat (PI) via s.a.zaat@amsterdamumc.nl for more information.

Please apply **before April 27** by providing (in English) your CV and motivation letter, and if available recommendation letter(s) and other relevant certificates. The selection procedure will consist of (i) initial preselection by an internal AMC selection committee based on your motivation letter and resumé followed by an interview, and (ii) an interview with 4 Principal Investigators of the STIMULUS consortium. The preferred starting date for this position is summer 2021, but not later than September 30, 2021. Interviews will be held April - May 2021.

We look forward to meeting you!

