

PhD position at Academic Medical Center to study biomarkers for necrotizing enterocolitis in neonates.

RESEARCH FIELDS

Biological sciences › Biology, Biomedical Sciences, Biotechnology or Molecular Life Sciences. Medicine.

RESEARCHER PROFILE

Early Stage Researcher (≤ 4 years of research experience at time of recruitment)

APPLICATION DEADLINE

30 April 2019 18:00h - Europe/Brussels

LOCATION

- Academic Medical Center, Amsterdam, The Netherlands

TYPE OF CONTRACT

Temporary, 48 months.

JOB STATUS

Full-time

HOURS PER WEEK

36

OFFER STARTING DATE

Flexible starting June – October 2019

EU RESEARCH FRAMEWORK PROGRAMME

H2020 / Marie Skłodowska-Curie Actions / European Industrial Doctorates

MARIE CURIE GRANT AGREEMENT NUMBER

814168

The Academic Medical Center in Amsterdam is looking for an Early Stage Researcher (ESR). This ESR will study biomarkers for necrotizing enterocolitis (NEC) in neonates using a clinical sample collection (urine, rest plasma, feces and intestinal NEC tissue) currently being established in a parallel project. This ESR position is part of the GROWTH consortium, a Marie-Sklodowska Curie Innovative Training Network (European Industrial Doctorates) that starts on the 1st of June 2019.

ABOUT ACADEMIC MEDICAL CENTER

The Academic Medical Centre Amsterdam (AMC) is one of the foremost research institutions in the Netherlands, as well as one of its largest hospitals. Over 7,000 people work here to provide integrated patient care, fundamental and clinical scientific research, and teaching. The department of Paediatric Surgery and the Tytgat Institute for Liver and Intestinal Research of AMC participate in GROWTH. The highly translational research performed in collaboration between these departments is particularly focused on the pathophysiology of intestinal ischemia-reperfusion, anastomotic leakage and intestinal maturation (including the derailment of the inflammatory response leading to necrotizing enterocolitis). Dr Joep Derikx, Prof. Ernst van Heurn (Paediatric Surgery) and Prof. Wouter de Jonge and Dr Ric van Tol (Tytgat Institute) will be supervising the ESR project at AMC.

ABOUT GROWTH

The GROWTH consortium, funded by the European Commission (2019-2023), is made up to train a new generation of researchers working on new pathological insights, biomarker diagnostics and personalized nutritional interventions for intestinal failure in neonates and preterm infants. Academic and industry partners, covering various disciplines ranging from fundamental research to clinical paediatrics and analytical chemistry to organoid and gut-on-chip applications, have teamed up in the EU:

- Gut Research BV (The Netherlands)
- University Hospital Bonn (Germany)
- Imperial College London (United Kingdom)
- Reckitt Benckiser (United Kingdom)
- Academic Medical Center (The Netherlands)
- Cherry Biotech (France)
- VU Medical Center (The Netherlands)
- TNO Research (The Netherlands)
- Radboud University Medical Center (The Netherlands)

GROWTH is a European Industrial Doctorate programme that requires PhD students to spend at least 50% of their time (18 months) in the non-academic sector.

GROWTH website url: <http://www.growth-horizon2020.eu/>

ABOUT THE ESR PROJECT

The PhD student will be enrolled in the AMC Graduate School and supervised by an academic and non-academic supervisor, equally exposing the candidate to the academic and non-academic sector.

This PhD student will first measure ELISA-based biomarkers and define protein markers using targeted proteomics in fecal samples. He/she will develop 2D and 3D fetal human organoids to employ interventional strategies using microbiota/nutritional components to improve intestinal healing. Also, gut barrier function measurements will be performed in organoids using advanced wound healing assays. The second part of this project entails the set-up of a large animal model (preterm pig) for NEC to validate the earlier findings in vivo. Eventually, he/she will apply targeted proteomics in intestinal tissue samples in which proteins of interest will be investigated, supporting further clinical implementation of the results of the project.

COLLABORATORS IN THIS ESR PROJECT:

- Reckitt Benckiser (London, United Kingdom)

SECONDMENTS

During the first 36 months of the ESR project, the candidate will have the opportunity to spend 18 months at Reckitt Benckiser (United Kingdom) to establish the NEC animal model and develop interventional strategies using microbiota/nutritional components to improve intestinal healing under supervision of Dr Gabriele Gross.

CANDIDATE REQUIREMENTS

REQUIRED EDUCATION LEVEL

A degree (MSc, or equivalent) in Health or Life Sciences (Biology, Microbiology, Molecular Biology, Immunology, Biomedical Sciences, Biochemistry or closely related fields). Candidates in the final stages of obtaining their degree are eligible to apply.

REQUIRED LANGUAGES

ENGLISH: Excellent, both written and spoken.

SKILLS/QUALIFICATIONS

We expect a Master's degree (or equivalent) in Health and/or Life Sciences. Furthermore, the applicant should be able to perform team-oriented as well as independent work. Desirable methodological skills: excellent background in molecular biology, biochemistry, cell biology, immunology and/or microbiology, hands-on knowledge of analytical methods.

ADDITIONAL INFORMATION

ELIGIBILITY

Applicants can be of any nationality and must be Early Stage Researchers and shall at the date of recruitment by AMC, be in the first four years (full-time equivalent research experience) of their research careers and have not been awarded a doctoral degree. Furthermore, the applicant must not have resided or carried out his/her main activity (work, studies, etc) in the country of his/her host organisation for more than 12 months in the 3 years immediately prior to his/her recruitment.

RENUMERATION

The per annum MSCA PhD student living and mobility allowance (plus family allowance if applicable, family status is assessed at recruitment) is in line with EU-MSCA requirements. This amount will be subject to tax and employee's National insurance deductions and will be paid in EURO.

HOW TO APPLY

Complete applications in English should include the GROWTH Application Form and its mandatory attachments (<http://growth-horizon2020.eu/apply-for-a-growth-position>). Please note that applications that do not meet these requirements WILL NOT BE CONSIDERED.

Please send the complete package as 1 PDF file via email to info@growth-horizon2020.eu before 30 April 2019 18:00h - Europe/Brussels.

Please familiarize yourself also with the other 7 postings (PhD positions) within the GROWTH consortium (www.growth-horizon2020.eu). Selected applicants will be invited to an Onsite Recruitment Event in Amsterdam on 13 May 2019. Awarding decisions will be announced shortly thereafter, and candidates are expected to be available to start their projects between June and October 2019.

HOW YOUR DATA IS KEPT

The data submitted in the Application Form will be used for recruitment purposes only and shared by members of the GROWTH consortium. The data will be held securely at Gut Research BV (network coordinator of GROWTH) and shared by secure cloud-based storage. Data is intended to be kept for a maximum of four years (the life-span of the project). Further information may be collected from the above-named institutes. Candidates can request deletion of their data by contacting info@growth-horizon2020.eu.