

## Research Assistant in Respiratory Immunology

**Position description:** This is an opportunity for a graduate level scientist to pursue cutting edge immunology research in a multidisciplinary research environment. The successful candidate will work on a Health Research Board funded project investigating how the microbiome composition impacts upon the immune response in the lungs of Chronic Obstructive Pulmonary Disease (COPD) patients.

COPD is the 3<sup>rd</sup> leading cause of death worldwide and affects over half a million people in Ireland. This respiratory condition causes difficulty breathing and irreversible damage to the lungs. COPD is an extremely debilitating condition for which there is only palliative treatment. Some patients experience flare-ups (exacerbations) which often causes hospitalisation and worsening of their condition, while others have a more stable pattern of disease. The reasons for these exacerbations are poorly understood.

Over the past decade a wealth of evidence have pointed at the human microbiota, a complex community of commensal microorganisms that colonise the mucosae and the skin, as a critical factor modulating human health and disease. The microbiome as emerged as an important factor influencing the response in the lungs during respiratory infections, asthma, allergy and is now emerging as a new element contributing to COPD. Here we will investigate how changes in the microbiome affect COPD progression and if shifts in the microbiome known as dysbiosis can contribute to COPD flare-ups. We will investigate how microbial-derived metabolites can help ease symptoms of COPD and restore the balance in the lungs.

The successful candidate will join the *Translational Respiratory Immunology Lab* (TRIL) <https://www.respiratoryimmunology.com/> led by Res. Asst. Professor Natalia Muñoz-Wolf at the School of Medicine at Trinity College Dublin <https://www.tcd.ie/medicine/> and the Department of Clinical Medicine at Tallaght university Hospital <https://www.tuh.ie/Departments/The-Professorial-Respiratory-Centre/>.

*We are looking for a highly motivated candidate with a strong background in immunology or microbiology to join the team.*

- *The successful candidate will work closely with the Research Nurse and will be in charge of managing storage of clinical samples, purification of DNA for microbiome analysis, isolation of monocytes from patients' blood samples and performing in vitro experiments. As part of the daily tasks the candidate is expected to update reagents and materials stocks and place the orders whenever necessary.*
- *Candidates must have high ethical standards and experience working with clinical samples, knowledge of tissue culture techniques and DNA isolation. Experience with animal work is desired. The successful candidate will work in our laboratories at Trinity Biomedical Sciences Institute and Tallaght University Hospital and may be involved in our collaboration with University College Cork and the APC Microbiome Centre.*

**Requirements:** A MSc or BSc in a biological science with previous laboratory experience.

**Salary:** Appointment will be made on the Irish Universities Association Researcher Salary Guidelines at Research Assistant, Point 2 (€28,059 per annum) to point 5 (€30,127 per annum) depending on the level of experience and in line with Government Pay Policy.

**Post Status:** Fixed Term, 12 month Specific Purpose Contract – Full-time (Part-time may be considered).

**Closing Date for applications:** September 20<sup>th</sup> 2021, date may be extended until a suitable candidate is identified.

Please submit a covering letter and CV (include the names and contact details of 2 referees) to:

[munozwon@tcd.ie](mailto:munozwon@tcd.ie)

*Trinity College Dublin is an equal opportunities employer.*