

Scientist – Microbiome Bioassay Development and High-Throughput Screening

Microba Life Sciences is a microbial genomics company that has quickly established itself as a world leader in analysis of the gut microbiome. With a growing body of global research indicating that the gut microbiome plays a central role in health and disease, Microba has positioned itself to be a leading force in the development of new pathology services, diagnostics and therapeutics.

Position overview:

Microba seeks a highly motivated Scientist to join a fast-paced and dynamic group to develop assays and high-throughput screens for the discovery and development of microbiome derived therapeutics. The successful candidate will design and establish *in vitro* and *ex vivo* assays to determine the ability of gut microbes and/or their bioactives to modulate host immunity, and lead efforts to validate their efficacy *in vivo*.

Key Responsibilities:

We are looking to recruit an experienced immunologist/cell biologist to dissect the impact of the microbiome on host immunity. Key responsibilities include:

- Establish and/or develop cell lines, maintain a cell line biobank, transient transfection, virus transduction, generate stable cell lines, characterise and validate modified cell lines, culture organoids.
- Lead assay development efforts by designing, performing and optimizing cell-based assays (e.g. luciferase/SEAP, viability etc.), enzymatic and ELISA-based assays, imaging-based assays, etc.
- Adapt and perform assays in 96-and 384 well high-throughput formats, design and perform high-content screening assays.
- Produce and analyse data from preclinical animal models, process tissue and score histologic inflammation, quantify inflammatory markers, characterise immune cells, etc.
- Quantify gene (enzymatic assays, RT-PCR, qRT-PCR, NGS etc.) and protein (immunoblotting, immunocytochemistry, ELISA etc.) expression from *in vitro*, *ex vivo* and animal experiments.
- Keep up with advances in technology and relevant disease biology. Analyse data, trouble-shoot experiments, meet timelines, and prepare summary slide presentations.
- Communicate results to supervisor and senior management effectively and in a timely manner. Maintain a detailed and accurate laboratory notebook. Prepare reports for patents and applications to regulatory bodies.

Requirements:

This position requires a minimum of a PhD degree in immunology and/or cell biology with at least 3 years postdoctoral/industry experience. Experience should include:

Essential:

In-depth knowledge of mammalian cell culture/cell line generation, high-throughput screening, signal transduction pathways, immunoassays, immunoblotting, molecular biology techniques, experience with preclinical animal models. An ability to work as part of a team and manage multiple projects simultaneously.

Desirable:

Experience with cell-based reporter assays, organoid culturing, immunocytochemistry, immunofluorescence, flow cytometry, FACS, MACS, epifluorescence and confocal microscopy, CRISPR/Cas9. Experience working in industry.

This is an opportunity to join our select team at Microba and provide new insights into how the microbiome affects health and well-being. To learn more about this position and how we are transforming microbiome research please contact **Dr. Páraic Ó Cuív** at paraic.ocuiv@microba.com

To apply for this position, please contact **Dr. Páraic Ó Cuív** with a cover letter outlining your previous research experience and a detailed CV.

Applicants **must** be eligible to work in Australia. The position will remain open until filled.