**VACANCY SUMMARY**

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| **POSITIONS AVAILABLE** | **1 x Research Fellow**  **2 x Postdoctoral Scientists** |
| **LOCATION** | NIBRT Facility, Dublin, Ireland |
| **DEPARTMENT** | Cell Engineering Group |
| **HIRING MANAGER** | PI Cell Engineering - Prof Niall Barron |
| **CONTRACT TYPE** | Fixed Term 2 Years |
| **APPLICATION CLOSING DATE** | 20th August 2021 |
| **INDICATIVE INTERVIEW DATES** | September 2021 |

**ORGANISATION OVERVIEW**

The National Institute for Bioprocessing Research and Training (‘NIBRT’) is a global centre of excellence, headquartered in Dublin that provides training and research solutions to the global biopharmaceutical manufacturing sector. NIBRT arose from an innovative collaboration between University College Dublin, Trinity College Dublin, Dublin City University and the Institute of Technology, Sligo, with core funding by the Government of Ireland through Ireland’s inward investment agency, IDA Ireland. NIBRT’s 6,500 M² facility has 90+ employees currently and houses fully operational pilot plants for biologics manufacturing training to industry and education as well as multiple research laboratories focussed on biopharmaceuticals manufacturing research.

**PROJECT SUMMARY**

Cell therapy is the transfer of intact, live cells into a patient to treat or cure a disease. Cell-based immunotherapy and in particular, modified-cell immunotherapy such as CAR-T, has been delivering spectacular results for cancer patients and is an entirely new approach to treating cancer. Immune cells are removed from the patient’s blood and engineered to identify and attack the cancer cells when they are reintroduced into the patient.

Irish cell engineering company, Avectas, is leading a consortium which will invest €7.23 million, including €4.4 million awarded under the Irish Government’s Disruptive Technology Innovation Fund (DTIF), to develop a high-throughput version of its proprietary cell engineering platform Solupore. With consortium partners Bluebridge Technologies and NIBRT, the project expands Avectas' development towards commercialising an advanced large-scale, digitalised cell engineering platform optimised to manufacture 'off-the-shelf' cell-based therapies for cancer treatment.

As one of the consortium partners NIBRT will test and validate the SOLUPORE FTS in an end-to-end cell therapy manufacturing process necessary to deliver *ex vivo* modified cells as therapeutic agents; explore new applications of SOLUPORE FTS for delivery of other macromolecules to cells in vitro and training of staff in the manufacture of these lifesaving treatments. Expanding the SOLUPORE application space will include:

* Examining the utility of the SOLUPORE platform for delivering modified RNAs to T cells
* Exploring the potential for this technology to rival transient transfection systems for the production of viral gene therapy vectors
* Examining the utility of the SOLUPORE platform for delivering Ribonucleoproteins (RNPs) to target cells

In doing so the intention is to understand the impact of SOLUPORE treatment on the molecular profile, including at the single cell level, of cellular therapies and cell lines used in Biomanufacturing. This will involve full validation of the CAR-T cell manufacturing workflow in NIBRT’s purpose-build CGT facility, using the SOLUPORE FTS system.

**DUTIES & RESPONSIBILITIES**

* Conducting a specific programme of research under the leadership of the Principal Investigator
* Maintaining detailed and orderly records of the work performed, making them available to the Principal Investigator upon request
* Disseminating the outcomes of this research at project meetings and through written reports
* Preparing and presenting progress reports and research findings to colleagues for review purposes
* Engaging in appropriate training and professional development opportunities as determined by the Principal Investigator
* Carrying out any other duties within the scope, spirit and purpose of the job as requested by the Principal Investigator including routine lab management and maintenance duties

Highly motivated individuals are required to provide leadership in the advancement of the consortium research objectives and key commercial development milestones in association with our DTIF partners.

**ESSENTIAL & DESIRABLE CRITERIA**

* A PhD in molecular/cell biology or related discipline essential. Postdoctoral experience highly desirable.
* Extent and breadth of experience in the following techniques in an academic or industrial environment will dictate level of appointment and salary
  + Experienced in culture of both primary and continuous cell lines essential. Experience at larger scale (100ml – multi-litre in single-use or conventional bioreactors) desirable.
  + Experience with molecular techniques and assays related to generation, characterisation and manipulation of DNA, RNA and proteins including but not limited to DNA cloning, in vitro transcription, CRISPR applications, etc.
  + Experience with gene/protein delivery methods – transfection, electroporation, viral transduction etc.
  + Familiar with working at BSL2 desirable.
  + Experience generating viral vectors for gene delivery desirable, e.g. lentivirus, AAV.
  + Experience with cell assays and analytical techniques essential, including plate-based assays (e.g., ADCC assay), flow cytometry/FACS, microscopy, etc.
  + Experience with NGS library prep techniques desirable.
  + Experience with single cell sequencing desirable.
* Proven track record of working as part of a focused team to deliver defined outcomes in a timely manner
* Appointees at the Research Fellow level will be expected to have excellent leadership qualities and contribute to mentoring and training earlier stage colleagues in the lab
* Strong interest in applied research
* Excellent writing and documentation skills
* Effective oral and written communication skills: report writing, knowledge transfer and communication skills with the ability to present complex information effectively to a range of audiences

**APPLICATION PROCESS**

To apply for this position please forward your CV, cover letter and the names and contact details of two referees in a combined PDF document to NIBRT at **careers@nibrt.ie** on or before close of business on 20th August 2021. Please include your name and the position for which you are applying for in the subject line. Please note that the successful candidate may be required to supply parchments of degrees/qualifications/work permits. Informal enquiries can be made in confidence by contacting our HR Manager at careers@nibrt.ie