Candidate Information

Position:	Cancer Antigen Discovery Scientist - KTP Associate - AilseVax Ltd
School/Department:	KTP and Business Networks
Reference:	23/111384
Closing Date:	Friday 1 December 2023
Salary:	£25,000 - £39,000 per annum. One of the key KTP benefits for graduates is access to a £9,600 training and travel budget over the 36-month project.
Anticipated Interview Date:	Wednesday 13 December 2023
Duration:	36 months

JOB PURPOSE:

Queen's University Belfast in partnership with AilseVax Ltd have an exciting employment opportunity for a graduate to work on a project to develop and embed a new platform for the rapid identification and validation of cancer antigen candidates to generate next generation cancer vaccines with broader and enhanced efficacy.

A spin-out company from QUB in the life and health sciences sector, AilseVax is developing cancer vaccines to enhance outcomes for patients with cancers that currently have limited therapy options.

The team comprises scientists and advisors with extensive experience in cancer biology, neo-antigen discovery, vaccine adjuvants, IND-enabling studies, and early-phase clinical trials, functional genomics, drug delivery, and vaccine adjuvants.

AilseVax's approach focuses on developing advanced antigen formulations that combine adjuvant (used to create a stronger immune response) and delivery innovations.

This is a unique opportunity for a dynamic and motivated Molecular Biology Post-Graduate to work in AilseVax (Belfast, County Antrim) on a 36-month collaborative project with School of Medicine, Dentistry and Biological Sciences at Queen's.

The KTP Associate will lead on the delivery of the following key project stages under the guidance of company and academic supervisors:

- Stage 1 – Optimisation of modified Ribosome profiling laboratory workflow. Methods for quantifying translation.
- Stage 2 – Data analysis workflow optimisation.
- Stage 3 – Establishment of a novel pipeline for proteomics verification of Ribo-seq derived vaccine candidates.
- Stage 4 – Integration of Stages 1-3 into AilseVax current data workflows (AltRNA8V™) and validation of potential novel Antigens.
- Stage 5 – Application of the methods for discovery of novel Antigens.
- Stage 6 – Dissemination of the findings.

MAJOR DUTIES:

1. Plan, manage and coordinate the items of work as laid out in the project plan (project work plan will be provided by Supervisors). Plan day-to-day activity and contribute to the planning and management of the project, approximately 3-6 months in advance.
2. Attend training modules (mandatory and additional job-specific training). This may be local, national, and international. Ensure that all training and development activity is scheduled to ensure that progress on the work plan objectives is not interrupted or delayed.
3. Plan and manage day-to-day resources to ensure the project runs to time and on budget.
4. Coordinate and obtain approval for planned expenditure/allocation of resources with the Management Committee and Steering Group, and monitor travel and development budgets and produce a Personal Development Plan which will ensure best use of financial resources.

5. Build relationships with both company and university staff to ensure effective working practices are established.
6. Liaise with company staff daily. Contribute to training of staff in the company and university as required, which may include the supervision of placement students or other staff members as required.
7. Attend and contribute to any appropriate meetings, both in the company and the university as required. Present regular progress reports to members of the Steering and Management Groups and to external audiences.
8. Perform any other additional duties as agreed by the Local Management Committee and Steering Groups to contribute to the development of the company, the university, and the Associate.
9. Establish contacts with additional groups and organisations (other KTP Associates, other university departments, other industrial contacts, and Innovate UK) as required to develop knowledge and understanding and form relationships for future collaboration.
10. Act as an Ambassador for the Knowledge Transfer Partnership Programme.

ESSENTIAL CRITERIA:

1. Hold or about to hold a PhD in cancer biology, molecular biology, cell biology, biochemistry, or a related discipline.
2. Substantial relevant research experience to include:
   • Experience with cancer biology and/or immunology.
   • Experienced in a range of molecular and cellular biology techniques, such as PCR, IHC/IF, Western blot, flow cytometry, ELISA.
   • Experience with generation, analysis and interpretation of genomic datasets (For example ChIP-seq, RNA-seq, ATAC-seq).
   • Experienced in in vitro culture models.
   • Experience with generation, analysis and interpretation of Proteomics data such as Mass Spectrometry and/or Immunoprecipitation-Mass Spectrometry (IP-MS).
   • Experience with data analysis and visualization.
   • Experience with programming languages such as Python or R.
   • Experience with laboratory work and good laboratory practices.
3. Ability to think logically, create solutions and make informed decisions.
4. A high level of numeracy and the ability to interpret data.
5. Ability to communicate complex information clearly.
6. Good oral, written and presentation skills.
7. High level of IT skills.
8. Self-motivated, capable of working independently, with a drive and ambition to succeed.
9. Ability to work effectively as a member of a group.
10. Enthusiasm for research/project area.
11. Well organised, attention to detail and ability to meet tight deadlines.
12. An interest in staying with the Company. (Associates are normally invited to apply for permanent positions).
13. Ability to take part in Associate management courses (requiring two one-week periods in England).
14. Willing/able to travel throughout the UK and Ireland and abroad, as necessary.
15. Ability to attend work at AilseVax at 97 Lisburn Road, Belfast and other work locations as required.

DESIRABLE CRITERIA:

1. 1st Class undergraduate degree in biochemistry, molecular biology, or related discipline.
2. Relevant experience in molecular biology.
3. Experience of working with Linux/UNIX.
4. Experience in Ribo-Seq and high-throughput assays.
5. Presentations at national/international meetings.
6. Ability to deliver training and follow-up support to operatives.
7. Ability to influence people effectively.
8. Tenacious and committed to achieving goals.

ADDITIONAL INFORMATION:

Knowledge Transfer Partnerships help forward thinking companies innovate for growth. They do this by connecting organisations who have an innovative idea with the knowledge and expertise to help deliver it. This dynamic three-way partnership formed between an inspired graduate, the university and the company mean that the graduate, known as the KTP Associate, provides the link between an expert academic team and a dynamic organisation. This bridge gives the graduate unique and exceptional access to both world class academic support and experts from within the business.

A KTP provides a fulfilling employment opportunity where you can apply your knowledge to turn a key strategic innovative idea into reality and although the KTP Programme is aimed at recent graduates, any suitable qualified graduate may apply. Each KTP Associate role is a fully salaried job and last between 12 months and three years with approximately 70% of Associates offered employment by the host business at the end of the project. Projects can be in any sector and for businesses of all sizes. Each KTP Associate will have a travel / training budget to provide funding for job-specific training and further professional development. Two, one-week residential management training modules are also included as part of the package.

For all KTP projects, the graduate is employed by the University but contracted to work in the business, under the business' basic terms and conditions including holidays and hours of work. As a member of university staff, KTP Associates can join the University pension scheme, gain access to University resources including the Library and sports facilities. Please note that KTP Associates are not eligible for financial support for relocation from the University.

KTP aims to help businesses improve their competitiveness and productivity through the better use of knowledge, technology and skills held within the UK knowledge base. KTPs are funded by UKRI through Innovate UK with the support of co-funders, including the Scottish Funding Council, Welsh Government, Invest Northern Ireland, Defra and BEIS. Innovate UK manages the KTP Programme and facilitates its delivery through a range of partners including the Knowledge Transfer Network (KTN), Knowledge Bases (in this case, Queen's University Belfast) and Businesses.

Please note that the Shortlisting Panel cannot make assumptions on your experience or qualifications; it is the responsibility of the applicant to evidence their suitability for the role. As such your Application Form, CV and/or Cover Letter must clearly demonstrate how your Qualifications and Experience meet the Essential Criteria and, where possible, Desirable Criteria, as listed in the Candidate Information Booklet. Please ensure that you address all the criteria in the person specification and provide evidence to support your statements.

More details about the KTP Programme are available at www.ktp-uk.org.