UNIVERSITY OF LEEDS

CANDIDATE BRIEF

KTP Associate - R&D scientist (Rational molecular design for gene therapy)
Faculty of Biological Sciences and FREELINE Therapeutics Ltd.

Salary: £competitive, plus training package worth £6,000. This position is not on the University of Leeds salary scale.

Reference: CSRIS1124

Fixed-term for 3 years (due to external funding for a fixed period)

Based at the company partner's premises in, Stevenage, Hertfordshire

We will consider flexible working arrangements

KTP Associate - R&D Scientist (Rational molecular design for gene therapy)
Faculty of Biological Sciences and FREELINE Therapeutics Ltd.

Do you have a PhD in in Physics, Chemistry, Biochemistry or a related subject? Are you interested in utilising advanced computational techniques to accelerate the discovery of novel and effective gene therapies?

We have an opportunity for you to fast-track your career in industry by leading a high-profile, strategically important project from start to finish. Through a Knowledge Transfer Partnership (KTP), you will be working in partnership with FREELINE Therapeutics Ltd., in conjunction with the Faculty of Biological Sciences to introduce molecular modelling approaches and develop a new platform to accelerate discovery of novel and effective gene therapies to treat currently incurable diseases. The innovative approach will deliver new treatments faster and in a cost-effective manner. The aim of this KTP is initially to integrate rational design to our AAV vector development process to create a new approach that will underpin our future therapy development capability.

FREELINE is a leading clinical-stage biotechnology company focussing on development and commercialisation of innovative gene therapies to change lives. FREELINE's strategic vision is to develop a series of potent, liver-targeted, Adeno-Associated Virus (AAV) gene therapies. Currently, only 'simple' monogenetic conditions can be targeted by AAV based therapies However, there are significant challenges in addressing 'complex' diseases due to the capacity/size of the AAV vector which limits the packaging of the transgene The KTP project will address these limitations using computational modelling and rational protein design to engineer a 'higher' packaging capacity AAV vector. A successful KTP outcome will enable FREELINE to draw from the rational design expertise from Leeds, develop and embed new in-house capability. The computational tools developed in this project will be key in achieving this strategic goal.

You will be based at the Astbury Centre of Structural Biology, University of Leeds for the first 7.5 months, and at the company premises at the Stevenage BioScience Catalyst, Stevenage, Hertfordshire for the remainder of the project. You will be employed by the University of Leeds throughout, for a fixed period of 3 years. You will



be required to spend time at both the University and company throughout the project. Members of the Faculty of Biological Sciences will provide academic and technical support to you.

You will have access to a training and development package worth £6,000, to be spent according to your needs and the project's requirements, enabling you to work effectively on the project, and to plan for your future career. You will also attend two weeks of residential KTP training to equip you with the skills and knowledge required to complete the project successfully, for which time is allocated and funding provided.

What does the role entail?

As KTP Associate – R&D Scientist (Rational molecular design for gene therapy), your main duties will include:

- Understanding the commercial aspects of a fast-growing clinical stage company, the drug development R&D process, and the project scope within this;
- Creating strong working relationships with different departments within FREELINE;
- Engaging with external stakeholders;
- Communicating across highly specialised disciplinary boundaries as well as explaining technical detail to non-technical audiences;
- Project management; taking ownership of delivery of outputs and resources;
- Using machine learning and dimension reduction approaches to integrate structural, evolutionary and experimental data to enable predictive models of viral assembly, stability, efficiency and potency;
- Developing well optimised in silico models which can be translated in assays in vitro and then in vivo;
- Producing Standard Operating Procedures that can be used for training FREELINE staff to embed new knowledge;
- Keeping accurate records, including the creation of a repository for all knowledge generated during the KTP;
- End of project dissemination, embedding and communications.

These duties provide a framework for the role and should not be regarded as a definitive list. Other reasonable duties may be required consistent with the grade of the post.



What will you bring to the role?

As a KTP Associate - R&D Scientist (Rational molecular design for gene therapy), you will have:

- A PhD (or close to completion) in Physics, Chemistry, Biochemistry or a related subject;
- Experience in molecular modelling, biophysical techniques or protein engineering;
- Strong analytical skills, and the ability to work accurately and independently, designing, executing and drawing conclusions from research;
- A developing track record of peer reviewed publications in international journals;
- Excellent communication skills, both written and verbal; the ability to communicate your research to both technical and non-technical audiences;
- The ability to work well both independently and as part of a team;
- Strong initiative and a proactive approach, with excellent organisational, planning and self-management skills, including the ability to prioritise workloads to meet deadlines/demand and deliver high quality under pressure.

You may also have:

- Experience in molecular biology, virology and cell culture techniques; including mutagenesis and viral transduction;
- Experience of working in an R&D environment in gene and cell based-therapies.

How to apply

You can apply for this role online; more guidance can be found on our How to Apply information page. Applications should be submitted by **23.59** (UK time) on the advertised closing date.

Contact information

To explore the post further or for any queries you may have, please contact:

Emanuele Paci, Astbury Centre for Molecular Structural Biology

Tel: +44 (0)113 343 3806
Email: e.paci@leeds.ac.uk

Additional information

FREELINE expects that the Associate will continue to be valuable to the business in to the future, through their expertise and the additional skills developed in post. They therefore expect to be in a position to offer a permanent position at the end of the KTP. Therefore, it is essential that you are aspiring to a career in business rather than academia.

FREELINE

Interview location
Interviews will take place at the company premises in Stevenage, Hertfordshire, UK.

Working as a KTP Associate at Leeds
You will be an employee of the University of Leeds and will have access to University facilities. However, you will be based for the majority of your time at the company premises, working to their terms. You will have access to the University's USS pension scheme, with generous employer contributions.

Faculty and School Information
Further information is available on the research and teaching activities in the links contained within the text above.

A diverse background
The University of Leeds and the Faculty of Biological Sciences are committed to providing equal opportunities for all and offer a range of family friendly policies. The University is a charter member of Athena SWAN (the national body that promotes



gender equality in higher education), and the Faculty of Biological Sciences was reawarded a Bronze award in 2017. We are proud to be an inclusive Faculty that values all staff, and are happy to consider job share applications and requests for flexible working arrangements from our employees. Our Athena SWAN webpage provides more information. http://www.fbs.leeds.ac.uk/equality-and-diversity/athena-swan/

Candidates with disabilities
Information for candidates with disabilities, impairments or health conditions, including requesting alternative formats, can be found on our Accessibility information page or by getting in touch with us at disclosure@leeds.ac.uk. The post is located at the company premises. Candidates with disabilities wishing to review access to the building are invited to contact Laura Dugdale (Research and Innovation Service), L.Dugdale@Leeds.ac.uk or Tel: 0113 343 0928.

Criminal record information

Rehabilitation of Offenders Act 1974
A criminal record check is not required for this position. However, all applicants will be required to declare if they have any 'unspent' criminal offences, including those pending.

Any offer of appointment will be in accordance with our Criminal Records policy. You can find out more about required checks and declarations in our Criminal Records information page.