

Job Opportunity

Role: Peptide Phage Display Scientist

Location: Glasgow, UK

Apply to: recruitment@kelticpharmatherapeutics.com

Closing Date: Dec 1st 2021

The Role

We have an exciting new opportunity for a highly skilled Research Scientist. We are seeking an experienced, versatile, and self-driven senior scientist who has excellent knowledge and understanding of peptide phage display with exceptional practical ability to support delivery of our in-house drug discovery programs. In this role you will lead, design, and conduct experiments, develop methods, interpret and report scientific data. You will be a proven problem solver, have exceptional communication skills and be a team player. This role will be essential for solving specific scientific questions at all stages of the Keltic Pharma Therapeutics pipeline, from initial target validation and protein QC, screening, and through to supporting assays and to developing drug molecules.

Primary Responsibilities and Duties

- The successful candidate will be predominantly lab-based and will be responsible for generating binding data of peptides identified by the screening platform to targets of interest. The role will also use a selection of biophysical equipment with a primary focus to inform our drug discovery pipeline driving molecules towards the clinic and beyond.
- As needed, some protein handling and QC will be required. The applicant should be comfortable with a fast-paced, dynamic working environment and hold excellent communication skills to facilitate the necessary interactions with the internal biology and chemistry teams as well as external partners, collaborators and CROs.
- Procurement of laboratory equipment.
- Application of phage display technologies for the engineering and discovery of peptides using in-house phage display libraries.

- Contribute to the development of new methodologies/ techniques in the production of peptide design libraries.
- Analysis of peptide sequences to determine SARs.
- Performing biophysical assays and interpretation of data with a range of methodologies e.g. SPR, BLI, DSF.
- Engage with opportunities for the further expansion of our biophysical capabilities both in-house and engaged with CROs with methodologies such as Mass Spec, DLS, MST.
- Quality control of in-house and externally sourced proteins using techniques such as analytical SEC, SDS-PAGE, Mass Spec and subsequent binding or functional assays.
- Publish scientific results in high impact scientific journals and in patents.
- Present scientific results at conferences.
- Work to existing SOPs and risk assessments and contribute to generating new ones as appropriate.
- Record experiments accurately and diligently in electronic lab books and databases to allow efficient query, retrieval and decision making.

Key Skills and Competencies

- Experience of phage panning, including generation and use of target-specific phage libraries.
- A solid understanding and proven track record of molecular biology techniques including PCR and cloning.
- Experience of Sanger sequencing essential, NGS desirable.
- Analysis of peptide sequences to determine SARs.
- Extensive experience in a diverse array of biophysical assays.
- Self-motivation and a high level of motivation with a proven ability to deliver to tight timelines and work effectively within multi-disciplinary teams. The ability to independently troubleshoot and identify next steps and solutions to scientific problems.
- A drive to facilitate the drug discovery process by attaining high quality data.
- An understanding of phage display or other display technologies.
- Practical experience of protein purification including affinity chromatography, HIC, IEX, and SEC.
- Previous experience in analyses of protein peptide interactions.
- Molecular biology expertise in terms of expression and plasmid design.
- Experience of both prokaryotic and eukaryotic protein expression systems.
- A BSc and PhD in Biochemistry or a related discipline with a

focus on biophysics, protein science, and molecular biology.

- Strong interpersonal skills, confident and experienced in presenting data internally and externally.
- Good computing skills in MS Office suite software.
- Experience in using data analysis software packages, databases ELNs e.g. Dotmatics and GraphPad Prism desirable.
- Diligent in documenting work and adherence to data integrity requirements.

Desirable Capabilities

- Extensive experience in protein science and drug discovery.
- Experience with drug discovery projects and a robust understanding of the wider drug discovery process.
- Industrial experience.

Why join Keltic Pharma Therapeutics?

- Be part of a new and exciting funded start up with founders who have extensive industrial experience and collaboration with biotech and pharma companies.
- Use your experience and capabilities to make a difference.
- State-of-the-art campus environment. The Advanced Research Centre (ARC) will be a creative and collaborative heart of research at the University of Glasgow.
- Competitive performance rewards including annual company bonus.
- 25 days annual leave in addition to bank holidays.
- Eligibility for an option grant to subscribe to shares in Keltic Pharma Therapeutics plc.

The Company

Keltic Pharma Therapeutics is an innovative drug discovery company with headquarters located in Dublin and discovery activities located in Glasgow in the state-of-the-art Advanced Research Centre built at a cost of £113 million at Glasgow University. The ARC will be a creative and collaborative heart of research at the University of Glasgow.

As well as providing collaboration facilities for the entire University research community, it will be home to academics working on global challenges across five broad themes: Creative Economies & Cultural Transformation, Digital Chemistry, International Development, Quantum and Nanotechnology, and Technologies Touching Life.

The Tobin laboratory at the University of Glasgow made a major scientific breakthrough with the discovery of PfCLK3 as a target in malaria: discovered that the essential malaria protein kinase, PfCLK3, which plays a key role in parasite RNA splicing, is a target that when inhibited results in the killing of Plasmodium falciparum blood and liver stage parasites and prevents development of sexual stages. PfCLK3 is a target with curative, prophylactic and transmission blocking potential. A drug discovery program has been established to rapidly advance potential new medicines to clinical testing.

Our aim is to deliver a first-in-class anti-malarial drug that will be curative, transmission blocking and prophylactic. The Founders of Keltic Pharma Therapeutics have decades of research experience in a class of cell surface receptor called G protein coupled receptors (GPCRs). This class of receptor are the world's most successful drug targets.

Keltic Pharma Therapeutics have invented a novel drug discovery platform called PEP-SMOL that is specifically designed to generate small drug-like molecule hits against shallow binding pockets. By deploying PEP-SMOL – will pursue drug discovery programs against high value GPCR targets that previously have been considered either 'hard to target' or even 'un-druggable'. Using this platform, the company is progressing an exciting portfolio to provide new medicines to address unmet medical need in a number of poorly treated diseases, these include severe asthma and neuropsychiatric disorders.

The Team

The academic team based at the University of Glasgow together with the Business Team based in the headquarters in Dublin have the combined innovation, deep target knowledge and corporate drug discovery expertise to deliver new receptor-based medicines and a novel anti-malarial treatment.

Dr Elaine Sullivan – CEO

Previously a member of the top senior R&D management teams in Lilly and AstraZeneca with a successful track record in science, investment, business development and start-ups. Co-founder of Carrick Therapeutics raised Series A of \$95 million. Established 14 new companies, including Tensha Therapeutics (acquired for circa \$500 million) via the Capital fund initiative of Lilly where she led Lilly's Global External R&D function. Accountable for the creation and management of Lilly's external R&D portfolio. Holds external board positions with Evotec, IP Group, Active Biotech, and Open Orphan.

Prof Andrew Tobin – CSO

Andrew Tobin is a leader in malaria biology and target validation (see; appendix I for grant funding). He has developed unique genetic approaches to defining the role and therapeutic potential of protein kinases in malaria. He has also a long-

standing international reputation in the GPCR field particularly in the validation of receptor-targets that can treat memory loss in neurodegenerative disease. Prior to joining the University of Glasgow, Andrew led a group at the University of Leicester investigating GPCR biology and generated novel genetic/chemical genetic mouse models and used such mouse models to define the action of GPCR targeted drugs to modulate human diseases. He has a number of collaborations with Biotech and Pharmaceutical companies.

Andrew Jamieson - Chief Innovation Officer

Andrew Jamieson is a Reader in Chemical Biology at the University of Glasgow. He has sixteen years' experience of peptide chemical biology and medicinal chemistry. He currently leads a research group, funded by EPSRC, BBSRC, MRC and DSTL, focused on peptides and peptidomimetics that can be used to probe the biological mechanisms underpinning disease.

Prof Graeme Milligan- Senior Research Advisor

Prof Milligan is a leading expert on the molecular pharmacology of GPCRs with >550 publications in the field (h-index >91, >32,000 citations). He has received several awards including the Ariens Award for Pharmacology, and the Vane Medal for Pharmacology and is a Thompson Reuters Highly Cited Researcher. Graeme has extensive experience in working with industry (and in addition has licensed platform technologies developed in his group to GPCR-focused drug discovery companies Arena Pharmaceuticals (NASDAQ ARNA), Cara Therapeutics. He is a co-founder and director of the Calden Therapeutics. In addition, he has several collaborations with Biotech and large pharmaceutical companies.

Keltic Pharma Therapeutics is committed to building a diverse workforce that is representative of the communities we serve. We recognize that diverse and inclusive teams build a stronger and more innovative company. Therefore, all qualified applicants will be considered for employment, and we do not discriminate on the basis of race, religion, colour, gender, sexual orientation, age, disability status, marital status, or veteran status.