University of Nottingham
UK | CHINA | MALAYSIA

Role profile

Job title	Postdoctoral Research Associate/ Fellow in Biological Chemistry	Job family and level	Research and Teaching Level 4A/4
School/ Department	Chemistry/Biological Chemistry	Location	Biodiscovery Institute

Purpose of role

The purpose of this role will be to have specific responsibility for research, for developing research objectives and proposals for a research project in applying engineering biology techniques to an apoferritin nanocage in order to improve its abilities to function as a targeted drug delivery platform. This will require the application of a range of techniques including protein engineering, synthetic and analytical chemistry, mammalian cell culture, single molecule fluorescence microscopy and nano material characterisation. The person appointed will be expected to plan and conduct work using the above methodologies and techniques as appropriate to this type of research. To maintain accurate and detailed experimental records and curate the data they generate for long term access by others. and will be responsible for writing up their work for publication and assisting with further research grant submissions. The person will also be responsible for promoting safety laboratory working and supervision of less experienced researchers.

The person appointed will have the opportunity to use their initiative and creativity to identify areas for research, develop research methods and extend their research portfolio.

	Main responsibilities (Primary accountabilities and responsibilities expected to fulfil the role)	**% time per year**
1	To plan and conduct research using recognised approaches, methodologies and techniques within synthetic biology and chemistry and to support the development of improved methodologies to further the aims of the research project by generating materials for in vitro and in vivo analysis.	55
2	To analyse and illuminate data, interpret reports, evaluate, and criticise texts and bring new insights to research area.	10
3	To characterise the materials to levels required for publication and archive samples for future research.	10
4	To write up research work for publication and/or contribute to the dissemination at national/international conferences, resulting in successful research outputs.	5

5	To identify opportunities and assist in writing bids for research grant applications. Prepare proposals and applications to both external and/or internal bodies for funding, contractual or accreditation purposes.	5
6	To build relationships with both internal and external contacts in order to exchange information, to form relationships for future collaborations and identify potential sources of funds and/or opportunities for collaboration.	5
7	To provide support, guidance and supervision to other staff and students, where appropriate in own area of expertise.	10

Person specification

	Essential	Desirable
Skills	▪ Excellent oral and written communication skills, both orally and in written English, suitable for the preparation of scientific publications and presentation of research to internal, national, and international meetings. ▪ Ability to analyse and illuminate data, interpret reports, evaluate and criticise texts and bring new insights. ▪ Ability to creatively apply relevant research approaches, models, techniques, and methods. ▪ Well organised and self-motivated, with effective time-management skills and the ability to manage the day-to-day running of a research project and identify research objectives. ▪ Ability to build relationships and collaborate with others, both internally and externally. ▪ Ability to work both independently and as an active member of a collaborative team, with senior and junior colleagues, both within the research group and externally.	▪ Basic organic chemistry skills ▪ Ability to foster a research culture and commitment to learn in others. ▪ To have experience in and the ability to train others in essential methods and techniques in molecular biology, characterization of nanoscale biomaterials and synthetic and analytical chemistry. ▪ Experience in basic organic chemistry techniques, 1D and 2D NMR, and mass spectrometry. ▪ Experience in confocal fluorescence microscopy
Knowledge and experience	▪ Some practical experience of applying the specialist skills and approaches and techniques required for the role in chemistry and synthetic biology. ▪ Experience in use of a range of appropriate analytical science techniques to work within the research area spectroscopy. ▪ Excellent skills in protein engineering with knowledge of one or more of the following: organic synthesis; bioconjugation chemistry; mammalian cell culture and viability assays.	▪ Experience in the (co)supervision of undergraduate and/or postgraduate students.
Qualifications, certification and training (relevant to role)	▪ PhD (or near completion) in biological chemistry, biochemistry, pharmacy, biochemical engineering, or a related field	


Athena
Swan
Gold Award
GENDER CHARTER

Race
Equality
Charter
Bronze Award
RACE CHARTER

disability
confident
COMMITTED

Stonewall
DIVERSITY
CHAMPION

Signatory of
DORA

Expectations and behaviours

The University has developed a clear set of core expectations and behaviours that our people should be demonstrating in their work, and as ambassadors of the University's strategy, vision and values. The following are essential to the role:

Valuing people	Is friendly, engaging and receptive, putting others at ease. Actively listens to others and goes out of way to ensure people feel valued, developed and supported.
Taking ownership	Is clear on what needs to be done encouraging others to take ownership. Takes action when required, being mindful of important aspects such as Health & Safety, Equality, Diversity & Inclusion, and other considerations.
Forward thinking	Drives the development, sharing and implementation of new ideas and improvements to support strategic objectives. Engages others in the improvement process.
Professional pride	Is professional in approach and style, setting an example to others; strives to demonstrate excellence through development of self, others and effective working practices.
Always inclusive	Builds effective working relationships, recognising and including the contribution of others; promotes inclusion and inclusive practices within own work area.

Key relationships with others