



Job title	Research Fellow (Title will be 'Research Associate' where an appointment is made before PhD is completed)	Job family and level	Research and Teaching Level 4 (Appointment will be Level 4 career training grade where an appointment is made before PhD has been completed)
School/ Department	School of Medicine Translational Medical Sciences	Location	The Biodiscovery Institute, University Park Campus

Purpose of role

The purpose of this role will be to have specific responsibility for the delivery of research objectives and proposals associated with the Wellcome Trust funded Project - *Applying a multidisciplinary approach to defining molecular pathways in lung function impairment*.

The main aim of this programme of work is to identify genetic variation that predisposes to lung impairment and to use a multidisciplinary approach to translate these findings to new mechanistic understanding and therapeutic opportunities for lung disease. This is a collaboration between the Universities of Nottingham, Leicester and Cambridge. You will be expected to plan and conduct work using approaches or methodologies and techniques appropriate to the type of research and will be responsible for writing up work for publication.

You will join an established team, led by Professors Ian Sayers and Ian Hall, whose main areas of research interest include understanding how genetic mechanisms impact lung health using a broad range of approaches spanning cell, tissue and patient levels.

You will have the opportunity to use your initiative and creativity to identify areas for research, develop research methods and extend your research portfolio.

The School of Medicine recognises the importance of continuous professional development and therefore the importance of providing opportunities, structured support and encouragement to engage in professional development each year.

To find out more about the School of Medicine, its values, vision, teaching and research, please see our [further information leaflet](#).

	Main responsibilities (Primary accountabilities and responsibilities expected to fulfil the role)	% time per year
1	Research Responsibilities: <ul style="list-style-type: none"> ▪ To manage, plan and conduct research activity relevant to the programme of research using recognised approaches, methodologies and techniques within the research area. ▪ To resolve problems, in meeting research objectives and deadlines in collaboration with others. ▪ 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. 	70%
2	Engagement, Communication and Continuation Responsibilities: <ul style="list-style-type: none"> ▪ To keep up to date, comprehensive laboratory records documenting the research activity. ▪ To write up research work for publication and/or contribute to the dissemination at national/international conferences, resulting in successful research outputs. ▪ To collaborate with academic colleagues on areas of shared interest for example, course development, collaborative or joint research projects 	20%
3	Teaching: <ul style="list-style-type: none"> ▪ To supervise undergraduate and/or postgraduate students projects as appropriate. ▪ To participate in the assessment of student knowledge and co-supervise projects at Masters level. ▪ You are expected to make a contribution to teaching that is in balance with wider contributions to research and other activities. 	10%
4	Other: <ul style="list-style-type: none"> ▪ Any duties as required in accordance with the nature and grade of the post. ▪ We recognise the importance of continuous professional development and therefore the importance of providing opportunities, structured support and encouragement to engage in professional development each year 	N/A

Person specification

	Essential	Desirable
Skills	<ul style="list-style-type: none"> ▪ Competent in histology and immunohistochemistry. ▪ Competent in immuno and radioimmunoassay assays. ▪ Highly competent in protein analysis, including Western Blotting. ▪ Excellent oral and written communication skills, including the ability to communicate with clarity on complex information. ▪ Ability to creatively apply relevant research approaches, models, techniques and methods. ▪ Ability to build relationships and collaborate with others, both internally and externally. ▪ High analytical ability to analyse and illuminate data, interpret reports, evaluate and criticise texts and bring new insights. ▪ Ability to assess and organise resource requirements and deploy effectively. 	<ul style="list-style-type: none"> ▪ Skills in clustered regularly interspaced short palindromic repeats (CRISPR) based approaches for modification of mammalian cells. ▪ Working knowledge, skills in spatial transcriptomics approaches. ▪ Confocal microscopy skills.
Knowledge and experience	<ul style="list-style-type: none"> ▪ Understanding of Common molecular biology techniques including, PCR, plasmid construction, transfection. ▪ Excellent understanding of the underlying principles of immunohistochemical laboratory techniques. ▪ An interest and publication track record in investigating gene function in mammalian cells. ▪ Some practical experience of applying the specialist skills and approaches and techniques required for the role. 	<ul style="list-style-type: none"> ▪ A publication track record in investigating lung function genetics, candidate genes, mechanisms. ▪ Previous success in gaining support for externally funded research projects. ▪ Experience of developing new approaches, models, techniques or methods in research area. ▪ Authorship of peer reviewed publications in the field of airway cell biology and respiratory genetics. ▪ Experience of primary human airway cell and tissue culture models.

	<ul style="list-style-type: none"> ▪ Experience in use of research methodologies and techniques to work within area. ▪ Comprehensive understanding of health and safety legislation. ▪ Experience or knowledge of CRISPR/Cas9 genome editing approaches. ▪ Interest and knowledge of respiratory genetics. 	
Qualifications, certification and training (relevant to role)	<ul style="list-style-type: none"> ▪ BSc in Biochemistry/Biology or equivalent subject. ▪ PhD, or equivalent, in genomics, molecular and cell biology or related area of biological science, or the equivalent in professional qualifications and experience in research area ▪ OR near to completion of a PhD 	<ul style="list-style-type: none"> ▪ PhD in Respiratory Genetics or similar.
Other	<ul style="list-style-type: none"> ▪ Willingness to adopt the <u>vision and values</u> of the School of Medicine. 	



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

