



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 East Midlands Campuses of the University of Nottingham

Purpose of role

The purpose of this role will be to have specific responsibility for research, for developing research objectives and proposals associated with the Medical Research Council funded project - DeCyFir: Determining functional DNA cytosine modification in idiopathic pulmonary fibrosis pathology.

The main aim of the project is to understand the functional role of DNA cytosine modification in specific lung pathologies of Idiopathic Pulmonary Fibrosis. The project involves computational analysis of 'omics data including Oxford Nanopore DNA sequencing, and in vitro molecular biology approaches. The project includes collaboration with The University of British Columbia, Vancouver, Canada and The University of Cardiff,

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 your work for publication.

You will join an established team, led by the Assistant Professor in Respiratory Molecular Cell Biology, whose main areas of research interest include cell-type specific mechanisms of epigenetic dysfunction in lung health, disease and inhaled exposure and epigenetic biomarkers of respiratory disease. The team also includes the Professor of Developmental and Computational Biology, with world-leading expertise in Nanopore sequencing.

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 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.

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 own research activity using recognised approaches, methodologies, and techniques within the research area.	70%



	<ul style="list-style-type: none">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.	
2	Engagement, Communication and Continuation Responsibilities: <ul style="list-style-type: none">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	Teach, supervise, examine and personal tutoring: <ul style="list-style-type: none">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 other duties appropriate to the grade and level of the role	N/A

Person specification

	Essential	Desirable
Skills	<ul style="list-style-type: none">Highly competent in computational bioinformatic analysis (R, Python or equivalent) of omics data and multi-omicsExcellent 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">Experience in Nanopore sequencing analysis, ideally for DNA methylation profilingExperience of spatial gene expression dataExperience of imaging mass cytometryExperience in in-vitro molecular biology techniques (primary cell culture (preferably respiratory), CRISPR, qPCR)



Knowledge and experience	<ul style="list-style-type: none"> • Excellent understanding of epigenetics, including DNA methylation • Interest in and knowledge of respiratory medicine cell biology, ideally the pathogenesis of idiopathic pulmonary fibrosis • An interest and publication track record in analysis of large bio-omics datasets • Some practical experience of applying the specialist skills and approaches and techniques required for the role. • Experience in the use of research methodologies and techniques to work within area. • Understanding of health and safety legislation 	<ul style="list-style-type: none"> • A publication track record in epigenomics • Previous success in gaining support for externally funded research projects. • Experience of developing new approaches, models, techniques or methods in research area. • Experience of handling and analysing Nanopore sequencing data (ideally DNA methylation data)
Qualifications, certification and training (relevant to role)	<ul style="list-style-type: none"> • PhD or equivalent in bioinformatics/computational biology/molecular biology/genomics. 	
Other	<ul style="list-style-type: none"> • Willingness to adopt the vision and values of the School of Medicine. 	





Expectations and behaviours

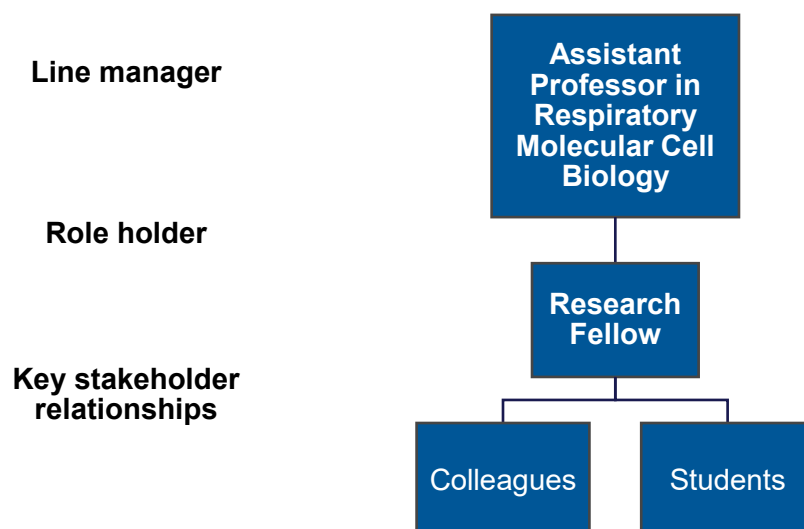
The University has developed a clear set of core expectations and behaviours that our people should be demonstrating in their work, and as ambassadors of the University's strategy, vision and values. The following are essential to the role:

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

This is a Smart Art diagram. Click on the boxes to enter the role holder's job title, line manager's job title and any direct reports (if applicable). If a role does not have any direct reports, remove this box by double clicking on it and pressing Delete.

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Role profile