Job Reference Number:	MI/26/54
Position:	Postdoctoral Scientist
Group/Department:	Skin Cancer and Ageing Group, and Non-invasivE Multi-Omics Team
Salary:	£39,253 - £47,543 per annum, dependent upon qualifications and experience
Duration:	3-year fixed-term



CRUK MI FURTHER PARTICULARS

Cancer Research UK Manchester Institute is a Research Institute within The University of Manchester and is core funded by Cancer Research UK

PARTICULARS OF APPOINTMENT

Ref: **MI/26/54**

Job Title: **Postdoctoral Scientist**

1. The Institute invites applications for the above post.

2. Salary will be within the range of £39,253 - £47,543 per annum, dependent upon qualifications and experience.

3. Applications should be submitted via JobMarker, the online recruitment system by the closing date as stipulated in the advert.

4. For applicants who require assistance with their application please contact the HR Department for further information on:
   Tel: +44 (0)161 306 9752
   Email: *jobs@cruk.manchester.ac.uk*

5. Informal enquiries can be made to Amaya.viros@cruk.manchester.ac.uk and florent.mouliere@cruk.manchester.ac.uk

6. Applicants are advised that if the Institute receives a high level of applications, we reserve the right to close the vacancy earlier than advertised.

7. The Institute will endeavour to contact shortlisted candidates promptly. However, there may be occasions where a high volume of applications are received, therefore an applicant's patience is appreciated.

8. As an equal opportunity employer, we welcome applicants from all sections of the community regardless of age, sex, gender (or gender identity), ethnicity, disability, nationality, religion or belief, sexual orientation, marital or transgender status. All appointments are made on merit.

9. As our Postdoctoral Scientist, you will be a visible presence within the Institute, providing professional and timely services within your role.

COPY OF THE ADVERTISEMENT

The Institute will actively foster a culture of inclusion and diversity and will seek to achieve true equality of opportunity for all members of its community.

Postdoctoral Scientist - Melanoma Exposome

- Starting salary in the range: £39,253 - £47,543 per annum (dependent upon qualifications and experience)
- Job Ref: MI/26/54
- Duration: 3-year fixed-term

About the role:

This is a 3-year postdoctoral scientist position in the joint laboratories of Skin Cancer and Ageing (CRUK Manchester Institute) and Non-invasivE Multi-omics (CRUK National Biomarker Centre) to study the onset, progression and therapy response of pediatric and young adult melanoma. The post holder will investigate how early-life environmental exposures, principally ultraviolet radiation and diet, shape melanoma risk and biology, and why exposure during childhood has different consequences from the same exposure in adulthood. The project will combine in vivo models of UV exposure and dietary intervention across childhood and adult exposure windows with epigenetic profiling of blood, including DNA methylation and cell-free DNA analysis.

Key project duties will include designing and conducting in vivo UV-exposure and dietary-intervention studies; collecting and processing tissue and blood samples; generating and analysing DNA methylation and cell-free DNA data; integrating experimental and molecular datasets; developing reproducible analysis workflows, including coding in R; working closely with partners across the ERC European consortium; presenting results at consortium and scientific meetings; and preparing high-quality manuscripts for publication.

About you:

You should have a PhD in cell biology, immunology, epigenetics, skin biology, molecular biology or a closely related discipline. A background in cancer biology or genomics is desirable but not required.

For any informal enquiries about this post, please contact:
Amaya Virós Amaya.viros@cruk.manchester.ac.uk or
Florent Mouliere florent.mouliere@cruk.manchester.ac.uk

Why choose Cancer Research UK Manchester Institute and the Cancer Research UK National Biomarker Centre?

The Cancer Research UK Manchester Institute (CRUK MI), an Institute of The University of Manchester (www.manchester.ac.uk), is a world-leading centre for excellence in cancer research. Cancer Research UK National Biomarker Centre (CRUK NBC) is an internationally leading, highly specialised translational research centre within The University of Manchester aligned with the Cancer Research UK Manchester Institute. Both CRUK MI and CRUK NBC are core-funded by Cancer Research UK (www.cancerresearchuk.org), the largest independent cancer research organisation in the world. In spring 2023, CRUK MI and CRUK NBC moved into the new Paterson Building, a £150 million flagship purpose-built biomedical research centre directly attached to The Christie NHS Foundation Trust in South Manchester (www.christie.nhs.uk), one of the largest cancer treatment centres in Europe. These factors combine to provide an exceptional environment in which to pursue basic, translational and clinical research programmes.

Our aim is to understand the fundamental basis of cancer and apply that knowledge to developing new treatment strategies for cancer patients. Our advanced research programmes span a spectrum of cancer research, from the molecular and cellular basis of cancer through to drug discovery, translational research and clinical trials. We have access to outstanding laboratory facilities and exceptional core services.

About the Skin Cancer and Ageing Group and Non-invasivE Multi-Omics Team

Please visit our website to view the information:
https://www.cruk.manchester.ac.uk/research-group/skin-cancer-ageing/
https://cruknbc.org/research/non-invasive-multi-omics/

How to apply?

To apply for this position please complete the online application via 'Apply Now'. Please ensure you detail the names of three referees and ensure you submit your application before the closing date specified.

Please note this vacancy will close for applications at 18:00 hours on the closing date specified.

Job Description

After the closing date this job description will be removed from our website. Should you wish to refer to this information at a later date, please ensure that you save a copy of this document.

Disabilities and alternative formats

The University of Manchester is a disability confident Leader and is committed to supporting disabled people in recruitment, employment, and career development. We will make reasonable adjustments to enable applicants to compete to the best of their ability wherever it is reasonable to do so. Therefore, if you have any additional support needs throughout the recruitment process or require documentation in alternative formats, please do not hesitate to contact the HR Department, for further information, on:

Tel: +44 (0)161 306 9752

Email: *jobs@cruk.manchester.ac.uk*

The Disability Confident scheme, accredited by the Department for Work and Pensions (DWP), helps employers recruit, retain and train great people. Disability Confident organisations play a leading role in changing attitudes about, and increasing understanding of, disability. There are three levels of the scheme with Leader being the highest.

CANCER RESEARCH UK MANCHESTER INSTITUTE
JOB DESCRIPTION

JOB DETAILS

Job Title: Postdoctoral Scientist - Melanoma Exposome

Grade: Postdoctoral Scientist

Department: Skin Cancer and Ageing Group and Non-invasivE Multi-Omics Team

Division: Cancer Research UK Manchester Institute (CRUK MI) and Cancer Research UK National Biomarker Centre (CRUK NBC)

ORGANISATIONAL ARRANGEMENTS

Accountable to:

1. Skin Cancer and Ageing Group Leader
2. Non-invasivE Multi-Omics Team Leader

JOB PURPOSE

To contribute to the success of a research programme by undertaking specific research project(s) on behalf of and guided by the Group Leaders.

PROJECT

The postdoctoral scientist will investigate how early-life environmental exposures, principally ultraviolet radiation and diet, shape melanoma risk and biology, and why exposure during childhood has different consequences from the same exposure in adulthood. The project will combine in vivo models of UV exposure and dietary intervention across childhood and adult exposure windows with epigenetic profiling of blood, including DNA methylation and cell-free DNA analysis.

Key project duties will include: designing and conducting in vivo UV-exposure and dietary-intervention studies; collecting and processing tissue and blood samples; generating and analysing DNA methylation and cell-free DNA data; integrating experimental and molecular datasets; developing reproducible analysis workflows, including coding in R; working closely with partners across the ERC European

consortium; presenting results at consortium and scientific meetings; and preparing high-quality manuscripts for publication.

BACKGROUND

Melanoma in children is rare, biologically distinct from adult melanoma, and remains poorly understood. Environmental exposures during early life may have lasting effects on tissue biology, immune responses and cancer susceptibility, yet the mechanisms linking childhood exposure to subsequent melanoma risk are not well defined. This ERC-funded programme will address this knowledge gap by comparing childhood and adult exposure windows in relevant in vivo models and by measuring exposure-associated epigenetic changes in blood.

The post is jointly embedded in the Virós group at the Cancer Research UK Manchester Institute and the Mouliere group at the Cancer Research UK National Biomarker Centre, University of Manchester. It forms part of an international ERC European consortium and provides opportunities to integrate ideas, methods and results with leading European centres. The position will be based across the Oglesby Cancer Research Building and the Paterson Building, which provide state-of-the-art laboratory space, a stimulating intellectual environment and access to first-rate core facilities.

It is recognised that the post holder is in training to develop their academic independence.

DUTIES AND RESPONSIBILITIES

- To be inquisitive.
- To develop and drive an independent project within a multidisciplinary group.
- To pursue a program of work agreed with the Group Leader.
- To ensure successful completion of the project and maximise publication output.
- To prepare manuscripts for publication; to address referees comments.
- To keep up with the scientific literature.
- To design and execute experiments.
- To use established procedures and develop new approaches; to acquire new skills.
- To maintain accurate records of experiments and reagents. To ensure that all items that are used during the course of a program of work are replaced before being used up by directly ordering the relevant items.
- To prepare and present work at and attend weekly laboratory meetings.

- To present work at the Institute, and at domestic and international meetings.
- Mandatory attendance at Institute seminars.
- To attend the Institute retreat, space permitting.
- To supervise graduate students, visiting scientists and others as necessary.
- To interact with collaborators and companies.
- To conform to COSHH, Codes of Practice, and Local and Institutional Rules.
- To adhere to the rules and regulations of any facilities, in house or external, that needs to be accessed during the course of the work programme.
- To perform other functions consistent with the position, nature of the post and as determined by the Group Leader.

STANDARDS OF PERFORMANCE

- Work efficiently, cost-effectively and in a flexible manner.
- To meet objectives within pre-determined timescales.
- Strict adherence to protocols and Institute policies.
- To comply with Health & Safety requirements, including having an awareness of personal responsibilities to maintain a safe working environment.
- To maintain confidentiality of information in line with data protection requirements and University policy.
- Familiarise themselves with the University's Equality and Diversity policies and to actively support these wherever possible.
- Manage and prioritise own workload to meet deadlines.
- Effective communications to be maintained at all levels.
- Be a team player.
- To contribute to the University's agenda for social responsibility, including sustainability.
- To complete a security screening as and when required.
- The post holder may be offered Hepatitis B immunisation by a vaccination programme; although this is dependent on the nature of the work and the availability of vaccine.

PERSON SPECIFICATION

The person specification should set out the qualifications, experience, skills, knowledge, personal competencies and other requirements which the post holder requires to perform the job to a satisfactory level.

Job Title: **Postdoctoral Scientist - Melanoma Exposome**

	ESSENTIAL The qualities without which a post holder could not be appointed	***DESIRABLE*** Extra qualities which can be used to choose between candidates who meet all the essential criteria	***METHOD OF ASSESSMENT***
QUALIFICATIONS	• PhD* in cell biology, cancer biology, immunology, epigenetics, skin biology, molecular biology or a closely related discipline. *As a minimum requirement, candidates must have submitted their thesis by the employment start date and must be awarded their PhD within the specified probationary period.		CV and Presentation of certificate
EXPERIENCE	• Relevant research experience in cell biology, molecular biology, immunology, epigenetics, skin biology or a related area. • Demonstrable experience in defining and solving research questions relevant to the project. • A publication record demonstrating the ability to produce high-quality research outputs. • Experience of designing, executing, interpreting and documenting complex experiments. • Evidence of working independently while contributing effectively to a multidisciplinary team.	• Experience in cancer biology or genomics. • Experience of in vivo models, ideally involving cancer, skin biology, ultraviolet radiation or dietary intervention. • Experience in DNA methylation analysis, fragmentomics, cell-free DNA, liquid biopsy or related epigenomic approaches. • Experience analysing tumour, tissue or blood-derived samples. • Experience across experimental and computational disciplines. • Evidence of method development and scientific problem solving.	CV, references, publications and interview

SKILLS	• Strong practical skills relevant to molecular, cellular, epigenetic or in vivo research. • Ability to design robust experiments, apply appropriate controls and interpret data critically. • Ability to communicate ideas and results clearly and concisely in writing and presentations. • Strong organisational skills, including the ability to manage, lead and complete an independent research project. • Ability to prioritise work, meet deadlines and distinguish critical issues from lower-priority tasks. • Ability to work constructively within multidisciplinary and international collaborative teams. • Innovative approach to scientific problem solving. • Ability to work independently with minimal supervision. • Computer literacy. • Ability to set goals, respond to challenges and take initiative. • Demonstrated ability to develop and test novel research ideas.	• Bioinformatics and statistical analysis skills, including coding in R and/or Python, command line. • Experience with reproducible computational workflows and data visualisation. • Ability to inspire and support colleagues, students and technical staff. • Practical experience with specialist software or pipelines for DNA methylation, cell-free DNA or sequencing data analysis.	CV, references, publications and interview
KNOWLEDGE	• Knowledge of cell and cancer biology, immunology, epigenetics or skin biology relevant to the project. • Working knowledge of molecular biology, genetics and experimental design. • Knowledge of cancer biology and the principles of tumour development and progression. • Understanding of research integrity, data management and reproducibility.	• Knowledge of melanoma biology, ultraviolet radiation responses or environmental exposure research. • Knowledge of DNA methylation, cell-free DNA, liquid biopsy or computational epigenomics. • Ability to rapidly assimilate new information and place findings within the wider field.	CV, references, publications and interview

OTHER	• Home Office personal licence, or willingness and ability to obtain one. • Willingness to travel for consortium meetings and scientific conferences. • Self-motivated, ambitious, meticulous and organised. • Ability to work to strict deadlines and across organisational boundaries. • Willingness to learn and implement new experimental and analytical techniques. • Commitment to equality, fairness, integrity, collaboration and responsible research. • Openness and responsiveness to change and innovation.		***Interview and*** references,

** It is essential that thesis submission takes place prior to the individuals start date. Written confirmation is required by the University where the PhD is being studied that a submission has taken place. The successful candidate has to be awarded their PhD qualification within the Probation period in place for a Postdoctoral Scientist otherwise this will not meet the requirements for the grade.

THE CITY OF MANCHESTER AND THE REGION

Manchester is one of the great European cities and the Cancer Research UK Manchester Institute is located a short distance from the city centre and is serviced by regular public transport to the city centre. The city's architecture represents one of the high points of Victorian achievement. The modern city is a major centre of banking, commerce and manufacturing.



It is consistently ranked as the best liveable city in the UK by the Economist Intelligence Unit. In 2021, Manchester was ranked in the top 3 of the TimeOut World's Best Cities list with the comment, "the friendliest city with the best community spirit and top-notch nightlife including its Gay Village and Northern Quarter in the heart of the city." It has a highly cosmopolitan atmosphere, and its cultural life is internationally renowned.

Manchester offers extensive provision for research. Library facilities include the John Rylands University Library (the major library in the North West and the third largest in the country) and the Manchester Central Reference Library.



Housing is varied, plentiful and the price ranges can start moderately priced and are as varied as the requirements. Schooling ranges from world-famous private schools to excellent sixth-form colleges and comprehensives.

Manchester is well served by a major international airport, with direct scheduled flights to many destinations in Europe as well as North America and Asia. Some of the most beautiful countryside in Europe is just short of an hour's drive from the Institute in the Peak District National Park, while the Lake District and Snowdonia in Wales are also within easy reach.

Manchester Piccadilly railway station has been refurbished and is served by inter-city and other train services – with a direct link to Manchester Airport. The network of Metrolink tram services offers an alternative mode of public transport from certain parts of the conurbation and includes connections near to the Institute.

There are three outstanding professional theatre companies, the halls of the Hallé and BBC Philharmonic orchestras, the Cornerhouse as well as other cinemas, and Europe's fastest-growing Chinatown.



Amongst the developments enriching the area's cultural life have been the opening of the Lowry Centre and Media City at Salford Quays; the opening of the Bridgewater Concert Hall; the refurbishment of the City Art Gallery; the opening of Urbis in the centre of Manchester and of the Imperial War Museum North, designed by Daniel Libeskind, in Trafford.

Trafford, specifically Old Trafford, is known internationally for sport, it is a venue for Test cricket and the home of Manchester United FC. The Commonwealth Games were held in Manchester in 2002 and were highly acclaimed. The Commonwealth Stadium became the home of Manchester City FC in 2003.

OUR BENEFITS PACKAGE

Facilities and General Discounts

We have a wide range of fantastic facilities for you including coffee shops, cafes, and restaurants in various buildings on Oxford Road, library, museum, art gallery, theatre (providing music and drama) and the world-famous radio telescope at Jodrell Bank. You can attend a varied programme of events at these, many of which are free to staff. Staff also have a plethora of discounts available to them on fitness, entertainment, restaurants, hotels, supermarkets, and online retailers.

Health and Fitness

We have a fantastic range of sports and fitness programmes across three of the best sports facilities in the city of Manchester. Each of our facilities provides something for everyone and are in convenient locations across Oxford Road, Fallowfield and all the way into the City Centre. Staff have a discounted membership to these facilities.

Wellbeing

The Institute is committed to supporting staff wellbeing and have a range of resources available. This includes a free 24/7 helpline through our Employee Assistance Programme which allows staff to talk in confidence to trained counsellors and advisers on areas like emotional, physical, and mental health.

The University's counselling service offers confidential help with any personal issues affecting work, self-esteem, relationships, sexuality, mental health and general well-being. It is accessible to all staff and is part of a wider network of help and support; and can advise on where else to seek help and make referrals to NHS mental health services.

The University's Occupational Health service provides confidential services to protect the health of staff and ensures that all health issues are effectively managed. Additionally, the Institute has wellbeing working groups and employee champions to support staff.

We offer a generous annual leave allowance of 32 days per year, (pro rata for part time staff) plus bank holidays for England. The Institute gifts an additional day's leave on Christmas Eve.

Travel

The Institute is committed to reducing its environmental impact and actively supports and promotes travel by sustainable means. We work closely with The Christie NHS Foundation Hospital to have a green travel plan that aims to provide a package of measures that increase the travel options available to staff. These options include as a Cycle to Work Scheme and annual interest-free travel loans with Northern Rail, Stagecoach and Metrolink.

Family Friendly Support

If you have childcare responsibilities the Institute can provide you with a range of support to assist you in balancing your work and home life commitments. Information is available on the government's Tax Free Childcare Scheme and The University's Workplace Nursery Scheme. We also have a range of family friendly policies and staff have the right to request to work flexibly.

Equality, Diversity, and Inclusion (EDI)

The Institute is committed to creating an environment where diversity is celebrated and everyone is treated fairly, regardless of gender, gender identity, disability, ethnicity, religion or belief, sexual orientation, marital or transgender status, age, or nationality. The Institute has an EDI committee which provides leadership, drive and strategic direction on equality, diversity, and inclusion across all parts of the Institute. The committee will seek to promote cultural change and ensure that the EDI action plan is embedded across all functions of the Institute.

Personal Development

Whether you are a research scientist, technical or operational staff, you will receive excellent on the job training and an opportunity to share skills experience and expertise in a collaborative environment. The Institute has a range of training available for support and professional development.

Disability

The Institute is committed to providing a positive working environment free from discrimination, harassment, or victimisation due to a disability where all staff are treated with respect and dignity. The Institute has access to a Disability Advisory and Support Service (DASS) which has a dedicated disability adviser for staff to provide advice, guidance and support about a range of practical adjustments in the workplace.

Pension

We have two* generous pension schemes to provide benefits for you and your family. For more details, please contact the HR department.

**the pension scheme applicable for this role can be found in the Terms And Conditions section found at the end of this document.*

ADDITIONAL RECRUITMENT AND SELECTION PARTICULARS

Shortlisted Candidates:

1. We will reimburse reasonable travel expenses. You need to retain all your receipts, as you will need to submit these with your expense claim form. This form will be given to you when you attend your interview.

2. If candidates require accommodation the Institute can arrange this for you. Please notify the HR Department as soon as possible so that this can be arranged on:
   Tel: +44 (0)161 306 9752 or
   Email: *jobs@cruk.manchester.ac.uk*.

   *Please note that reimbursement for accommodation may **not** apply.*

3. If candidates have any additional support needs to enable them to attend an interview, they will be able to request/discuss this with the HR department when arranging the interview.

4. Shortlisted candidates may be expected to complete a presentation as part of the selection process. Information regarding the duration and title of the presentation will be provided in the invitation to interview correspondence. We supply both laptop and projector for presentations.

5. All dates and times stated in correspondence from the Institute refer to UK GMT (Greenwich Mean Time).

6. Candidates need to bring along their passport to interview, a copy of which will be taken for our records, when you visit the Institute. If candidates have difficulty in producing their passport, please contact the HR Department prior to the interview on:
   Tel: +44 (0)161 306 9752 or
   Email: *jobs@cruk.manchester.ac.uk*

7. MS Teams interview **with or without presentation:**
   Instances may arise where we propose to hold an online interview as a (first stage) selection process. If this is the preferred method of interview, this will be stated on your invite to interview email. You will be provided with a link and password to attend the interview at a specified time on a specified date. This

link will redirect you to your MS Teams interview. 24 hours prior to interview we will require:

- A contact telephone number emailed to *jobs@cruk.manchester.ac.uk* along with a scanned copy of passport for ID purposes
- Where applicable, a copy of your presentation emailed to: *jobs@cruk.manchester.ac.uk.*

***Please note*:** You do need to have a working microphone and camera connected to your electronic device, for this interview to go ahead.

The criteria will be consistent with all other candidates.



STANDARD CRUK MANCHESTER INSTITUTE TERMS AND CONDITIONS

The following is a basic summary of the standard terms and conditions applicable to the post you have applied for:

- The post, Postdoctoral Scientist, is on a Cancer Research UK pay scale. It's on a Postdoc grade with a salary range of range of £39,253 - £47,543 (dependent upon qualifications and experience) per annum.

  Individuals' pending their formal PhD qualification will be placed on a salary of £38,500 per annum. Once their PhD has been awarded, the individual will revert to the appropriate Postdoctoral Scientist salary (once evidence has been provided to the Institute's Human Resources Department).

- Your employment will be with The University of Manchester appointed under the Cancer Research UK Manchester Institute terms and conditions.

- Salary is paid monthly on the penultimate last working day of the month.

- There are 32 days holiday per year plus Bank Holidays for England.

- Duration of contract is 3-year fixed-term.

- Working hours are 35 hours per week.

- There is a probationary period attached to this post of 8 months. It's standard for many organisations now and consists of two 4-monthly reviews with your line manager.

- You are eligible to join USS (https://www.uss.co.uk/) pension scheme.

- You may be eligible to claim relocation expenses in accordance with the criteria listed in the Institute's Relocation Policy.

- Any offer made by the Cancer Research UK Manchester Institute would require the successful candidate to undergo a medical clearance. This is arranged with Occupational Health department at The University of Manchester prior to starting employment and consists of a basic medical. This is to address and gain clearance for any potential hazards identified for the role on offer.

- Offer is subject to receipt of satisfactory references and proof of your highest qualification.

- Offer is subject to documented evidence of your right to work in the UK under the Home Office UK Border Agency Regulations.

- Overseas candidates should, if applicable, assess the likelihood of obtaining a visa for the post by evaluating their own circumstances against the criteria specified on the GOV.UK website.

- Successful overseas candidates may be eligible to claim reimbursement of expenses to cover their visa and National Health Surcharge costs, if required.

  Please note reimbursement does not extend to include family members, although a loan scheme is available.

- The appointment will be subject to a satisfactory pre-employment enhanced security check.

- The successful candidate is required to complete a Rehabilitation of Offenders/Criminal Records declaration form at the offer stage of the process. *Please note a criminal record will not necessarily be a bar to obtaining a position.*

- The Institute is promoting a green travel plan and there are staff benefits promoting this including a cycle to work scheme and the use of public transport. There are strong links to bus routes and trains to all CRUK Manchester Institute locations. More information about this can be found on our 'Our Benefits Package' page or by contacting the HR Department.

  Please note there are car parking restrictions imposed around these sites.

DON'T FORGET TO FOLLOW US ON SOCIAL MEDIA

#LifeAtCRUKMI

CANCER RESEARCH UK | Manchester Institute



THANK YOU!

Cancer Research UK Manchester Institute is a Research Institute within The University of Manchester and is core funded by Cancer Research UK