

Further Information

Bioinformatics Analyst / Senior Bioinformatics Analyst
– CRUK Cambridge Institute



Grade	7 / 8
Salary range	Grade 7 (£30,395 - £39,609 per annum) / 8 (£36,261 - £48,677 per annum)
Staff group	Academic-related

Role-specific information

Role Summary

The Rosenfeld lab at the Cancer Research UK Cambridge Institute, University of Cambridge, pioneers new approaches for noninvasive molecular diagnostics and analysis of cancer genomes and evolution, using next-generation sequencing of circulating cell-free tumour DNA (ctDNA). We work with large collections of patient material from different clinical studies, which we analyse by both genome-wide methods and targeted methods for sensitive mutation detection.

We are seeking to recruit an outstanding scientist who will have responsibilities over data management, software development and deployment. The ideal applicant will have an MSc/PhD and significant or extensive experience in data management, bioinformatics or computational biology, genome research, or closely related fields.

The primary role of the post is to manage the large databases of samples, experiments and data, and to play a prominent role in the analysis of this unique dataset. The post holder would be expected to provide analysis support for other researchers in the lab, to help develop novel analysis approaches, and translate such into robust software packages. The post holder will additionally integrate with and liaise between the institute's Bioinformatic Core unit and the Rosenfeld Lab.

You will be a highly motivated individual with excellent communication skills and who is extremely organised. You will be able to work independently and interact well in a multi-disciplinary team environment.

Key Responsibilities

- Manage the large databases of samples, experiments and data, and to play a prominent role in the analysis of the groups' unique datasets
- Provide analysis support for other researchers in the lab
- Help develop novel analysis approaches, and translate such into robust software packages
- Work alongside existing bioinformatics and computational biologists in the lab/institute
- Makes a significant contribution to the production of research papers for publication
- Work independently and interact well in a multi-disciplinary team environment
- Being pro-active in innovation and problem solving, improves established protocols, develops new protocols
- Receiving some supervision, but organises and prioritises own work
- Presenting findings to group members

Person Profile

This section details the knowledge, skills and experience we require for the role.

<p>Relevant Experience</p>	<ul style="list-style-type: none"> • Database design and management [Essential] • Good programming and scripting skills, algorithm/software design [Essential] • Analysis of next-generation sequencing data, genomics/evolution or relevant [Essential] • Computational analysis of high-throughput molecular biology experiments [Essential] • Experience in consulting with non-computational research scientists on experimental design and bioinformatics analysis [Desirable] • Experience with computational systems and data storage platforms [Essential]
<p>Specialist knowledge & skills</p>	<ul style="list-style-type: none"> • The applicant should have a good biological background and excellent computing skills [Essential] • Experience in the analysis of sequencing data using software such as GATK is essential [Desirable] • Experience in variant calling from DNA sequencing data [Essential] • Experience in linux based operating environments [Essential] • Experience in use of high-performance computing [Essential] • Very good general data analysis and programming skills [Essential] • Background in cancer research (or relevant topic) [Desirable] • Previous experience in the use of statistical software such as R [Desirable] • General knowledge of machine learning, classification, and statistics methods, including algorithms and software packages [Desirable] • Demonstrated experience in reproducible practices such as the use of git [Essential]
<p>Education & qualifications</p>	<ul style="list-style-type: none"> • The ideal applicant will have an MSc or PhD and significant or extensive experience in data management, bioinformatics or computational biology, genome research, or closely related fields [Essential]



**Additional
requirements**

- Ability to implement algorithms from high level specification [Desirable]
- Commitment to ethical and professional standards [Essential]

Behavioural Attributes

This section summarises the behavioural attributes that we expect the role holder to be able to demonstrate. Full definitions are at <http://www.admin.cam.ac.uk/offices/hr/policy/behavioural/attributes/>; please review these and provide specific examples in your application of how you have demonstrated these attributes in your work, education or other experience. It will assist your application if you explain the situation, what you did and what the outcomes were.

Behavioural Attribute	Level (defined by Grade)	Description. <i>Retain as appropriate to level:</i>
<u>Communication</u>	B (Grades 8,9,10) C (Grades 4,5,6,7)	Level B: Communicates effectively and appropriately with senior management, external partners and with people at all levels across the University and outside the University in the wider community. Level C: Communicates effectively and appropriately with a variety of stakeholders including external partners, teams, colleagues and contacts.
<u>Relationship Building</u>	B (Grades 7,8,9) C (Grades 4,5,6)	Level B: Develops and maintains existing partnerships. Builds teams and identifies means of enhancing their effectiveness
<u>Valuing Diversity</u>	A (all Grades)	Considers and respects the ideas, circumstances and feelings of others. Treats everyone with fairness and respect, adhering to the principles of diversity and inclusion.
<u>Achieving Results</u>	B (Grades 7,8,9) C (Grades 5,6)	Level B: Identifies and manages important issues and problems effectively. Plans and monitors the work of others and takes accountability for their levels of performance and success.
<u>Strategic Focus</u>	B (Grades 8,9,10,11) C (Grades 6,7)	Level B: Takes a strategic view and creates long-term plans for the institution/area of responsibility. Promotes a shared vision for the University. Level C: Implements the University's strategy and planning activity within the team. Supports the University's mission and priorities.
<u>People Development</u>	B (Grades 8,9,10,11) C (Grades 5,6,7)	Level B: Encourages and facilitates the learning and development of others. Demonstrates enhancement of individual and team potential through giving clear direction, guidance and feedback on performance. Level C: Demonstrates effective people management skills. Promotes and facilitates the development of others.

<u>Negotiating and Influencing</u>	B (Grades 9,10,11) C (Grades 6,7,8)	Level C: Persuades and influences peers and managers through consideration of their interests, involvement and consultation.
<u>Innovation and Change</u>	B (Grades 8,9,10) C (Grades 5,6,7)	Level B: Supports, promotes and implements change. Encourages the adoption of new methods and overcomes barriers to acceptance. Level C: Develops and promotes new ways of working to improve performance within team and institution.

Terms and Conditions

This section details the knowledge, skills and experience we require for the role.

Location	Cancer Research UK Cambridge Institute, Robinson Way, Cambridge, CB2 0RE
Working pattern	Monday to Friday
Hours of work	Full time There are no formal conditions relating to hours and times of work but you are expected to work such hours and days as are reasonably necessary for the proper performance of your duties. Your times of work should be agreed between you and your head of institution.
Length of appointment	3 years fixed term contract
Probation period	9 months
Annual leave	Full time employees are entitled to annual paid leave of 6.6 weeks (or 33 days), plus public holidays.
Pension eligibility	Universities Superannuation Scheme (USS) Pension scheme details, including information about the legal requirement for the University to automatically enrol its eligible jobholders into a qualifying workplace pension scheme from 1 March 2013, is available at: http://www.pensions.admin.cam.ac.uk/ .
Retirement age	The University does not operate a retirement age for unestablished academic-related staff.

Screening Check Requirements

We have a legal responsibility to ensure that you have the right to work in the UK before you can start working for us. If you do not have the right to work in the UK already, any offer of employment we make to you will be conditional upon you gaining it. If you need further information, you may find the Right to Work page within the 'Applying for a job' section of the University's Job Opportunities pages helpful (please see <http://www.jobs.cam.ac.uk/right/have/>).

This role requires an Agenda security screening check. Any offer of employment we make to you will be conditional upon the satisfactory completion of this/these check(s); whether an outcome is satisfactory will be determined by the University.

Application Process

Please ensure that you upload your Curriculum Vitae (CV) and a covering letter in the Upload section of the online application. If you upload any additional documents which have not been requested, we will not be able to consider these as part of your application.

If you have any questions about this vacancy or the application process, please contact the Rosenfeld lab management team; rosenfeld.labadmin@cruk.cam.ac.uk.

General Information

The University of Cambridge

The University of Cambridge is one of the world's oldest and most successful Universities, with an outstanding reputation for academic achievement and research. It was ranked fourth in the 2016 QS World University Rankings and its graduates have won more Nobel Prizes than any other university in the world. The University comprises more than 150 Departments, Faculties, Schools and other institutions, plus a central administration and 31 independent and autonomous colleges.

The University and the Colleges are linked in a complex historical relationship. The Colleges are self-governing, separate legal entities which appoint their own staff. They admit students, provide student accommodation and deliver small group teaching (supervisions). The University awards degrees and its faculties and departments provide lectures and seminars for students, determine the syllabi for teaching and conduct research.

There is much more information about the University at <http://www.cam.ac.uk/univ/works/index.html> which we hope you will find helpful.

Cancer Research UK Cambridge Institute

The Cancer Research UK Cambridge Institute is a leading cancer research institute, which employs approximately 400 staff members of all staff types, including Clinicians. The Institute aims to link the laboratory to the clinic with a multi-disciplinary approach to cancer-focussed research. The Institute's 20 research groups and associated core facilities are based at the Li Ka Shing Centre, close to Addenbrooke's Hospital.

The Institute's location on the [Cambridge Biomedical Campus](#), to the south of Cambridge, and its membership of many collaborative initiatives are vital in helping us to achieve our goals.

The Cambridge Biomedical Campus is home to Addenbrooke's Hospital, the University of Cambridge teaching hospital, and many of our collaborating institutes, including the [MRC Laboratory for Molecular Biology](#), the [Hutchison/MRC Research Centre](#), the [Strangeways Research Laboratories for Genetic Epidemiology](#) and the [Cambridge Institute for Medical Research](#). In the wider Cambridge area we also have extensive links with the [Wellcome Trust Sanger Institute](#), and the [European Bioinformatics Institute](#).

The CI is also a member of the [Organisation of European Cancer Institutes \(OECI\)](#).

Institute funding

The CI is core funded by Cancer Research UK, which allows our researchers to focus on answering challenging research questions. In addition group leaders apply for grants from external funding agencies to support their work, and around 50% of our PhD students and postdocs are externally funded.

In addition, the CI contributes to many of the collaborative centres and initiatives that Cancer Research UK helps to support, including the [Cambridge Biomedical Research Centre](#), the [Experimental Cancer Medicine Centre](#), and the [Cambridge Pancreatic Cancer Centre](#).

School of Clinical Medicine

The University of Cambridge School of Clinical Medicine aims to provide leadership in education, discovery and healthcare. The School will achieve this through: inspirational teaching and training, outstanding basic and clinical research and integration of these to improve medical practice for both individual patients and the population.

Through inspirational teaching and training, the School will educate individuals who:

- will become exceptional doctors or biomedical scientists
- combine a depth of scientific understanding with outstanding clinical and communication skills
- demonstrate a caring, compassionate and professional approach to patients and the public, and
- are equipped to become future international leaders of their profession

The School will through its commitment to the pursuit of excellence, support scientists of international standing in basic and clinical research aiming to:

- understand fundamental biology and thereby the mechanisms underlying disease
- integrate basic and clinical research
- apply a rigorous mechanism-based approach to clinical problems
- innovate to solve the health challenges of our society

The School's core values are:

-  to uphold the rights of the individual to freedom of thought, freedom of expression, access to education and access to appropriate healthcare
-  to respect the diversity of our students, academics, non-academic staff, patients and volunteers and value their different expertise and contributions to the life of the School
-  to instil in our graduates, staff and alumni a life-long passion for the pursuit of excellence in the service of society and an understanding of their responsibility to engage with the public about their research.

Remit Statement

The University of Cambridge School of Clinical Medicine aspires to change the practice of medicine and improve biological understanding in a wide range of clinical specialties and scientific disciplines. Collaborative research, both within biomedicine and crossing the boundaries to the mathematical, physical and social sciences, is key to our approach. The School also supports key enabling technologies and facilities in imaging, quantitative biology and medicine, and biological systems.

The main areas of research interest are:

- Cancer Research
- Cardio-Respiratory Medicine
- Cellular mechanisms of disease
- Diabetes, Endocrinology and Metabolism
- Epidemiology, Public Health and Primary Care
- Genetics and Genetic Medicine
- Haematological and Transplantation Medicine
- Infection and Immunity
- Neurosciences and Mental Health
- Paediatrics and children's health
- Stem Cells and Regenerative Medicine

What the University can offer you

One of our core values at the University of Cambridge is to recognise and reward our staff as our greatest asset. We realise that it's our people who have built our outstanding reputation and that we will only maintain our leading position in the academic world by continuing to attract and retain talented and motivated people. If you choose to come and work with us, you will find that we offer:

Excellent Benefits

You will be eligible for a wide range of competitive benefits and services, including numerous discounts on shopping, health care, financial services and public transport. We also offer defined benefits pension schemes and tax-efficient bicycle, car lease and charity-giving schemes.

We will help you balance your home and work life by providing you with generous annual leave entitlement and procedures for requesting a career break or flexible working arrangements if you need them. You will also have access to a range of well-being support services, including in-house Occupational Health and Counselling services. If you have childcare responsibilities, you may also benefit from the enhanced maternity/adoption pay, two nurseries and a holiday play scheme that we provide.

<u>Cambridge</u>	<u>Travel to work</u>	<u>Relocation assistance</u>
Local discounts Cambridge Festival of Ideas Cambridge Science Festival Open Cambridge	CAMBens Cycle/Cars Travel to Work Loan Trains (season ticket) U bus discount	Relocation Expenses (at the discretion of the Department.) University of Cambridge Accommodation Service Newcomers Service Sanctuary – for Addenbrooke's accommodation North West Cambridge
<u>Family-friendly</u>	<u>Careers and career development</u>	<u>Financial</u>
Childcare Service Leave/Flexible Working Career breaks Nurseries/play schemes Returning Carers Scheme My Family Care	Study/sabbatical leave Unpaid leave Careers Service Institute for Continuing Education Personal Development	CAMBens discounts Payroll giving Shared Equity Scheme Contribution Rewards
<u>Cambridge Biomedical Campus</u>	<u>Health & Wellbeing</u>	<u>Recreation</u>
Frank Lee Leisure and Sports Centre Concourse/shops/restaurants	Health Cash Plans Dental Discount Eye Test Occupational Health Counselling Service Mentoring Chaplaincy Clinical School Wellbeing Program	University Sports University Social Club College Entry Local Attractions

New to Cambridge

We are keen to welcome new employees from other parts of the UK and other countries to Cambridge. If you will be relocating to Cambridge on a centrally funded appointment of two years or more, you may be eligible for our relocation expenses scheme. The University [Accommodation Service](http://www.accommodation.cam.ac.uk/) (<http://www.accommodation.cam.ac.uk/>) will also be available to help you find suitable rented accommodation and to provide advice on renting arrangements and local facilities, if required. In addition, certain academic and academic-related appointments are eligible for the Shared Equity Scheme which offers financial assistance with the purchase of living accommodation.

If you are relocating to Cambridge, you and your family will be welcome to attend the Newcomers and Visiting Scholars Group, which provides an opportunity to find out more about Cambridge and meet other people new to the area.

A range of information about living and working in Cambridge is also available to you within the University's web pages at <http://www.jobs.cam.ac.uk/living/> and <https://www.hr.admin.cam.ac.uk/hr-services/relocating-uk>

A welcoming and inclusive environment

We will help you settle into your new role and working environment through a central [University induction event](#), local induction activities and our online induction package. Where appropriate to your role, you will have a probation period to provide a supportive framework for reviewing your progress and discussing your training and development needs.

Extensive development opportunities

The encouragement of career development for staff is one of the University's core values. We put this into practice through various services and initiatives, including:

- A [wide-range of training courses](#) and online learning packages.
- The [Clinical School appraisal](#), which is designed to enhance work effectiveness and facilitate career development post-probation.
- [Leave for career and personal development](#), including long-term study leave for assistant staff and sabbatical leave for academic staff.
- The [CareerStart@Cam programme](#), which supports assistant staff roles without higher education qualifications to develop their skills, experience and qualifications. Assistant staff may also apply for financial assistance for study which results in a qualification.
- [Reduced staff fees](#) for University of Cambridge graduate courses.
- The opportunity to attend [lectures and seminars](#) held by University departments and institutions.
- Policies and processes dedicated to the career development of researchers and the implementation of the principles of the Concordat, which have led to the University being recognised with an HR Excellence in Research Award by the European Commission.

You can find further details of the benefits, services and opportunities we offer can be found in our CAMBens Employee Benefits web pages at <http://www.hr.admin.cam.ac.uk/pay-benefits/cambens-employee-benefits>.

Equality of opportunity at the University

We are committed to a proactive approach to equality, which includes supporting and encouraging all under-represented groups, promoting an inclusive culture and valuing diversity. We make selection decisions based on personal merit and an objective assessment against the criteria required for the post. We do not treat job applicants or members of staff less favourably than one another on the grounds of sex (including gender reassignment), marital or parental status, race, ethnic or national origin, colour, disability (including HIV status), sexual orientation, religion, age or socio-economic factors.

We have various diversity networks to help us progress equality; these include the Women's Staff Network, the Disabled Staff Network, the Black and Minority Ethnic Staff Network and the Lesbian, Gay, Bisexual and Transgender Staff Network. In addition, we were ranked in the top 100 employers for lesbian, gay and bisexual (LGB) staff in Stonewall's Workplace Equality Index 2013 and we hold an Athena SWAN Silver award at organisation level for promoting women in Science, Technology, Engineering and Medicine.

We are supportive of staff with caring responsibilities (including elder care), such as through our flexible working, career break and returning carers schemes. We encourage individuals to include details of any breaks in employment due to caring responsibilities in applications for employment so that these can be taken into consideration in assessments made, where appropriate.

Information if you have a disability

The University welcomes applications from individuals with disabilities and we are committed to ensuring fair treatment throughout the recruitment process. We will make adjustments to enable applicants to compete to the best of their ability wherever it is reasonable to do so, and, if successful, to assist them during their employment. Information for disabled applicants is available at <http://www.admin.cam.ac.uk/offices/hr/staff/disabled/>.

We encourage you to declare any disability that you may have, and any reasonable adjustments that you may require, in the section provided for this purpose in the application form. This will enable us to accommodate your needs throughout the process as required. However, applicants and employees may declare a disability at any time.

If you would prefer to discuss any special arrangements connected with a disability, please contact the HR Recruitment Team, who are responsible for recruitment to this position by email on csrecruitment@medschl.cam.ac.uk.