

Job Description

Research Associate in Fungal Biology

Salary:	Grade 7
Contract:	Full time, fixed term
School/Department:	School of Biosciences
Location:	Canterbury Campus
Responsible to:	Dr Rebecca Hall

Job purpose

We are looking for two enthusiastic and ambitious postdoctoral researchers to join Dr Rebecca Hall's research team which are based in the School of Biosciences.

Dr Hall's team focus on understanding how adaptation of fungi to the environment affects the growth, morphology and virulence of fungal pathogens. The aim of this research project is to understand how adaptation of *Candida albicans* to specific environmental conditions the pathogen encounters in the host, drives fungal pathogenicity by inducing innate immune evasion, and to elucidate the underlying molecular mechanisms associated with immune evasion. This challenging role combines detailed laboratory work across three scientific disciplines (microbiology, molecular biology and immunology).

The post is funded by a Wellcome trust Discovery Award, which is a joint award between Dr Rebecca Hall (lead PI, University of Kent) and Dr Rebecca Drummond (Co-I, University of Birmingham) and will fund two full time PDRAs and part-time research technician at the University of Kent and a full time PDRA and part-time research technician at the University of Birmingham. This post will be based at the University of Kent, and the successful applicants will work independently to complete the outlined project objectives, as well as integrating and contributing to the wider Wellcome trust team.

Key accountabilities

- To undertake internationally leading research in the area of fungal biology
- To be proactive and drive the research project to fruition by devising and undertaking appropriate experiments to achieve the goals and milestones as set out in the grant proposal.
- To analyse and communicate results efficiently with the PI and research team, and to write reports and drafts of papers for publication.
- Maintain up to date, detailed records of research activities, results and data analysis performed.
- To interact with key collaborators to deliver milestones effectively, and to present findings at national and international conferences.

Key duties

The following are the main duties for the job. Other duties, commensurate with the grading of the job, may also be assigned from time to time.

- Undertake research related to the aims and objectives described in the grant application
- Develop and independent approach to the research in both the design and execution of necessary experiments
- Identify new methodologies and techniques appropriate to address to aims of the proposed research.

- Analyse and interpret data and draw conclusions on the outcome and contribute to collaborative decision making.
- Organise, store and write up results in a timely manner in regular detailed reports that will be used for publication in high-quality peer reviewed scientific journals, and dissemination to collaborators.
- Present data at national and international conferences
- Write manuscripts for publication in high-quality peer reviewed scientific journals
- Provide training and support to other members of the lab including technical staff, graduates and other postdoctoral researchers
- Be committed to your own personal career development, including continually updating knowledge and understanding in fields related to this research project.
- Contribute to writing bids for research grants
- Intentionally help with the general running of the lab (ordering chemicals, maintaining strain collections etc)
- Be an active member of Dr Hall research group and the wider Kent Fungal Group, through attendance at regular meetings, interaction with other PIs within the fungal group and their group members.
- Take part in outreach activities

Internal & external relationships

Internal: The main internal relations will be with Dr Hall and her laboratory members, members of the Kent Fungal Group and other undergraduate, postgraduate students and members of staff within the School of biosciences.

External: The main external relations include Dr Rebecca Drummond, and her research team at the University of Birmingham. The post holder will also be expected to interact with the wider fungal community at conferences and networking meetings.

Health, safety & wellbeing considerations

This job involves undertaking duties which include the following health, safety and wellbeing considerations:

- Regular use of Screen Display Equipment
- Repetitive limb movements
- Working with chemicals (inc. requirement to wear latex gloves and inc. work with CO₂ or N₂ gasses)
- Biological Agents/Scientific Hazards (experiments/lasers etc, and waste/sewage)
- Contact with Human fluids (blood, saliva etc)
- Conflict resolution
- Pressure to meet important deadlines such as might be inherent in high profile projects
- There may be a requirement to work evenings and weekends

Person specification

The person specification details the necessary skills, qualifications, experience or other attributes needed to carry out the job. Applications will be measured against the criteria published below.

Selection panels will be looking for clear evidence and examples in an application, or cover letter (where applicable), which back-up any assertions made in relation to each criterion.

Essential Criteria:

- PhD in Microbiology, Biochemistry or equivalent subject (A)
- Evidence of research excellence in fungal molecular biology or fungal host-pathogen interactions, including 2-3 first author publications in peer reviewed journals (A,I)
- Evidence of conference presentations and awards for presentations (A,I)

- Handling and analysing large data sets (transcriptomics/proteomics) (A,I)
- Proven ability to trouble shoot experimental problems (A,I)
- Evidence of molecular biology skills (cloning, fungal transformations, RT-PCR etc) (A,I)
- Extensive knowledge of fungal pathogens, host-pathogen interaction and/or immunology (A,I)
- Proficient in mammalian cell culture (A)
- Excellent written and verbal communication skills (A,I)
- Firm commitment to achieving the University's vision and values, with a passion for a transformative student experience and multidisciplinary, impactful research (I)
- Commitment to deliver and promote equality, diversity and inclusivity in the day to day work of the role (I)

Desirable Criteria:

- Experience in flow cytometry (A)
- Extensive knowledge of the fungal cell wall (A)
- Advanced computer skills for analysis of large quantities of data (I,T)
- Experience supervising students (A)
- Ability to work with collaborators and colleagues across multiple disciplines (A)
- Experience organising and chairing meetings (A,I)
- Membership of appropriate learned societies (A)

Assessment stage: A - Application; I - Interview; T - Test/presentation at interview stage