

## Job Description

Job Description	
Job purpose (a brief summary of the role)	Undertake research in order to support the work of the Holden Lab and the School of Life Sciences in order to develop and enhance its reputation, both internally and externally. Assist the Project Leader and, where appropriate, project collaborators in the successful execution of the project.
Duties and responsibilities	<p><b>RESEARCH</b></p> <ul style="list-style-type: none"> <li>• Help establish a sound research base within the department in order to assist the development of research objectives and proposals for own or joint research.</li> <li>• Conduct individual and collaborative research projects.</li> <li>• To publish research outcomes in appropriate journals of international standing and to publish and disseminate the result of research to other reputable outlets.</li> <li>• Translate knowledge of advances in the subject area into research activity.</li> <li>• May contribute to preparing proposals and applications to external bodies, e.g. for funding and contractual purposes, to support a developing research agenda.</li> <li>• May present information on research progress and outcomes to bodies supervising research, e.g. steering groups.</li> <li>• Communicate complex information (orally and in writing) and material of a specialist or highly technical nature.</li> <li>• Continually update own knowledge and understanding in field or specialism.</li> </ul> <p><b>TEACHING AND LEARNING SUPPORT</b></p> <ul style="list-style-type: none"> <li>• Could be expected to contribute to the teaching and learning programmes in the department.</li> <li>• Assist in the supervision of student projects and the development of student research skills.</li> <li>• May be involved in the assessment of student knowledge and supervision of projects.</li> </ul> <p><b>ADMINISTRATION AND OTHER ACTIVITIES</b></p> <ul style="list-style-type: none"> <li>• May be required to attend departmental meetings and to participate (where necessary) in other committees and working groups within the department, the faculty and the University.</li> <li>• Ensure compliance with health and safety in all aspects of work.</li> <li>• Work within budget constraints.</li> </ul> <p>The duties and responsibilities outlined are not intended to be an exhaustive list but provide guidance on the main aspects of the job. You will be required to be flexible in your duties.</p>

### Person Specification

*The Person Specification focuses on the essential and desirable knowledge, skills, experience and qualifications required to undertake the role effectively. This is measured by (a) Application Form, (b) Test/Exercise, (c) Interview, (d) Presentation.*

Essential Criterion No.	Essential Criterion Description	Measured by
E1	Applicants should either have a PhD in a relevant subject such as biophysics or biochemistry or be due to complete their PhD within 6 months.	A
E2	Applicants should be able to demonstrate a focused interest in single molecule fluorescence-based studies of biomolecules.	A,C & D
E3	A developing research profile with the ability to publish and/or produce high quality research output. This may include evidence of work that has not yet been published.	A,C & D
E4	Ability to work both independently and collaboratively as part of a team on research programmes	A,C & D
E5	Effective communication skills (oral and written), including the ability to articulate and present research results to an audience and to supervise, train and mentor others.	A,C & D

Desirable Criterion No.	Desirable Criterion Description	<i>Measured by</i>
D1	Expertise in in vitro single molecule FRET spectroscopy and microscopy.	A,C & D
D2	Expertise in the application of single molecule fluorescence methods to study protein dynamics, conformation and/ or interactions.	A,C & D
D3	Proficiency in analysing single molecule data using a common scientific data science language such as Python or MATLAB. Examples include: plotting and analysis of FRET histograms, analysis of single molecule rate kinetics, conversion of FRET measurements to accurate distances and evaluation of single molecule data in context of other information such as structural and biochemical data.	A,C & D
D4	Experience in preparation and characterisation of samples for single molecule FRET studies. Examples include: design of optimal dye labelling strategies; dye labelling of proteins; purification of dye labelled proteins and characterization of dye labelled proteins by bulk fluorescence spectroscopy; surface passivation for surface-based single molecule studies.	A,C & D
D5	Experience in operating and maintaining instruments for single molecule fluorescence spectroscopy and microscopy.	A,C & D