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|---------------------------|---------------------------|-----------------------------|---------------------------------------|
| <b>Job title</b>          | Research Associate/Fellow | <b>Job family and level</b> | Research and Teaching Level 4a/4      |
| <b>School/ Department</b> | School of Life Sciences   | <b>Location</b>             | Medical School, Queens Medical Centre |

## Purpose of role

This role will involve investigating and performing research to disseminate findings on an ERC advance grant project funded by UKRI Frontier Science entitled "**Plasmo Div: Unravelling the unconventional dynamics and regulation of rapid cell division during Plasmodium male gamete formation**" with the overall supervision by Prof. Rita Tewari.

The research will primarily investigate protein complexes involved in parasite cell division during transmission stages using conditional gene modulation through CRISPR-Cas9, AID and Dicer, and protein-protein interactions using mass-spectrometry proteomics and yeast two- and three-hybrid assays. This is to understand cyclin and CDK interaction and their role in parasite atypical cell cycle and cell division. This is to further investigate parasite development in both the host and mosquito vector.

|   | <b>Main responsibilities</b><br>(Primary accountabilities and responsibilities expected to fulfil the role)                                                                                                                                                | <b>% time per year</b> |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| 1 | Use a range of molecular techniques, with emphasis on proteomics combined with yeast two- and three-hybrid assays, to understand the interactomes of cell cycle/cell division proteins and the interacting partners in collaboration with Dr Stephen Gray. | 55%                    |
| 2 | Meeting and liaising with Dr Stephen Gray at Nottingham                                                                                                                                                                                                    | 20%                    |
| 3 | Training undergrad and post grad researcher and general laboratory house keeping                                                                                                                                                                           | 10%                    |
| 4 | Dissemination of research through preparation of manuscript and well aware of relevant literature                                                                                                                                                          | 10%                    |
| 5 | Any other duties appropriate to the role and level                                                                                                                                                                                                         | 5%                     |

## Person specification

|                                                                      | Essential                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Desirable                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Skills</b>                                                        | <ul style="list-style-type: none"> <li>▪ Excellent Oral and written communication skills, including the ability to communicate with clarity on complex information.</li> <li>▪ Developing research skills, with the ability to creatively apply relevant research approaches, models, techniques and methods</li> <li>▪ Ability to contribute to method improvement.</li> <li>▪ Analytical ability to facilitate conceptual thinking, innovation and creativity.</li> <li>▪ Ability to build relationships and collaborate with others, internally and externally.</li> </ul> | <ul style="list-style-type: none"> <li>▪ Ability to assess and organise resource requirements and deploy effectively.</li> <li>▪ Ability to foster a research culture and commitment to learn in others.</li> <li>▪ High analytical ability to analyse and illuminate data, interprets reports, evaluate and criticise texts and bring new insights.</li> </ul> |
| <b>Knowledge and experience</b>                                      | <ul style="list-style-type: none"> <li>▪ Evidence of sufficient breadth or depth of research methodologies and techniques to work in research area.</li> <li>▪ Some practical experience of applying the specialist skills approaches and techniques required for the role.</li> <li>▪ Evidence of using research methodologies and techniques to work within research area</li> <li>▪ Understanding of and ability to undertake molecular cloning and proteomics</li> </ul>                                                                                                  | <ul style="list-style-type: none"> <li>▪ Experience of developing new approaches, models, techniques or methods in research area.</li> <li>▪ Experience with yeast culturing</li> <li>▪ Experience of yeast two-hybrid assays</li> <li>▪ Experience of interpreting proteomics data</li> </ul>                                                                  |
| <b>Qualifications, certification and training (relevant to role)</b> | <ul style="list-style-type: none"> <li>• PhD (or close to completion)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                 |



## 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

