



Job title	Research Associate in Chemical Kinetics	Job family and level	Research and Teaching Level 4
School/ Department	Faculty of Engineering	Location	University Park Campus

## Purpose of role

This is a research associate role as part of a large pharmaceutical consortium at the interface between academia and industry, where the associate will contribute to cutting-edge advancements in reaction understanding and process optimisation. The work will primarily feature the integration of high data-density reaction techniques, laboratory automation & robotics and kinetic/machine learning modelling. Practically, this involves the application of innovative methods such as flow chemistry ramping and high-throughput experimentation to expedite reaction understanding in the syntheses of life-saving pharmaceuticals, whilst saving precious reaction material overall.

	Main responsibilities (Primary accountabilities and responsibilities expected to fulfil the role)	% time per year
1	<b>Conduct research activities</b> <ul style="list-style-type: none"><li>▪ Scoping of chemical reactions and equipment necessary to acquire data.</li><li>▪ Running reactions and analysis day-to-day.</li><li>▪ Recording data in line with expectations of robustness and future publications.</li><li>▪ Upkeep of lab equipment for themselves and others within the lab.</li><li>▪ Conduction of good lab practice.</li></ul>	75
2	<b>Research dissemination</b> <ul style="list-style-type: none"><li>▪ Write research papers.</li><li>▪ Present both nationally and internationally at conferences.</li><li>▪ Collaborate with others within the consortium to apply outputs further.</li></ul>	15
3	<b>Research supervision</b> <ul style="list-style-type: none"><li>▪ Help to supervise PhD students within the lab, ensuring their experimental accuracy and personal development.</li><li>▪ Help to train others within the lab.</li><li>▪ Ensure a safe working environment.</li><li>▪ Develop process risk assessments and other documentation necessary for other group members to utilize the methodologies developed in this project.</li></ul>	10

## Person specification

	Essential	Desirable
<b>Skills</b>	<ul style="list-style-type: none"> <li>Chemical synthesis</li> <li>Coding</li> <li>Research communication</li> <li>Can collaborate effectively</li> </ul>	
<b>Knowledge and experience</b>	<ul style="list-style-type: none"> <li>Experience with coding and/or machine learning and/or kinetic analysis techniques</li> </ul>	<ul style="list-style-type: none"> <li>Research outputs from PhD or otherwise.</li> <li>"Hands on" chemistry experience in the laboratory.</li> <li>Lab automation experience.</li> <li>Experience in academic/industrial collaborations.</li> </ul>
<b>Qualifications, certification and training (relevant to role)</b>	<ul style="list-style-type: none"> <li>PhD in chemistry, chemical engineering or related field.</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:

<b>Valuing people</b>	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.
<b>Taking ownership</b>	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.
<b>Forward thinking</b>	Drives the development, sharing and implementation of new ideas and improvements to support strategic objectives. Engages others in the improvement process.
<b>Professional pride</b>	Is professional in approach and style, setting an example to others; strives to demonstrate excellence through development of self, others and effective working practices.
<b>Always inclusive</b>	Builds effective working relationships, recognising and including the contribution of others; promotes inclusion and inclusive practices within own work area.

## Key relationships with others

This is a Smart Art diagram. Click on the boxes to enter the role holder's job title, line manager's job title and any direct reports (if applicable). If a role does not have any direct reports, remove this box by double clicking on it and pressing Delete.

**\*\*Please remove this paragraph of instructions before submitting the role profile\*\***



