

## RCloud Tasking Form – Part B: Statement of Requirement (SoR)

<b>Title of Requirement</b>	Synthetic Genetic Sensors for pharmacologically or physiologically active small molecules
<b>Requisition No.</b>	RQ0000011769
<b>SoR Version</b>	0.1

<b>1.</b>	<b>Statement of Requirements</b>
<b>1.1</b>	<b>Summary and Background Information</b>
	<p>This requirement is to fund a [Redacted Under FOI Exemption] in the area of genetic sensors for pharmacologically or physiologically active small molecules, or dietary components, exploring the <i>de novo</i> design and construction of circuits activated or controlled by such moieties.</p> <p>Synthetic biology is a new and rapidly expanding field of research attracting multiple disciplines to address biological challenges or develop biologically enabled tools to meet broader challenges. Gateway innovations and developments present a step change in capability at both small and industrial scales that disrupt the status quo. Specific technology areas with potential to generate a step-change in chemical or biological hazard include genetic sensors and circuits.</p> <p>An established method for building expertise (at both individual and institutional levels) is collaboration with external partners with appropriate programmes and capabilities. External [Redacted Under FOI Exemption] are a recognised means to develop and maintain these collaborations.</p> <p>In this partnership, the specific project will be agreed between the parties and advertised to potential students. The project will align with appropriate [Redacted Under FOI Exemption] objectives and work streams.</p>
<b>1.2</b>	<b>Requirement</b>
	<ol style="list-style-type: none"> <li>1. A fully referenced literature review within 12 months of the start of the [Redacted Under FOI Exemption] covering the area of genetic sensors (including artificial, designed or specifically evolved) for pharmacologically or physiologically active small molecules, or dietary components, exploring the <i>de novo</i> design and construction of circuits activated or controlled by such moieties.</li> <li>2. As part of the literature review the student will propose a [Redacted Under FOI Exemption] that will enable a deeper understanding to be developed within a specific area of genetic sensors (including artificial, designed or specifically evolved) for pharmacologically or</li> </ol>

physiologically active small molecules, or dietary components, exploring the *de novo* design and construction of circuits activated or controlled by such moieties.

3. Once the proposal has been discussed and agreed with the Redacted Under FOI Exemption a more detailed project plan will be developed within 2 weeks and provided to Redacted Under FOI Exemption. The project plan will include but not be limited to a technical plan, risks, and outputs.
4. Quarterly progress reports (by email) will be required on the progress of the technical approaches being undertaken, risks, issues, highlights and lowlights.
5. Annual progress presentation to the Redacted Under FOI Exemption.
6. At the end of the Redacted Under FOI Exemption the student will produce a thesis which will be fully referenced updating the literature review conducted during year 1.
7. The Redacted Under FOI Exemption department and academic supervisor must have a proven track record in the area of genetic sensors (including artificial, designed or specifically evolved) for pharmacologically or physiologically active small molecules, or dietary components, exploring the *de novo* design and construction of circuits activated or controlled by such moieties covering computational biology, synthetic biology, *de novo* design of genetic circuits, rigorous metrology of genetic circuit mechanisms and outputs.
8. The academic supervisor must have a proven track record in successful Redacted Under FOI Exemption supervision.
9. Redacted Under FOI Exemption
10. All data generated by the contractor during the course of the research will be supplied to Redacted Under FOI Exemption. No data will be deleted without prior written permission from Redacted Under FOI Exemption.
11. Redacted Under FOI Exemption will be provided with an electronic copy of any published manuscripts.

Desirable:

1. The student will undertake a three month placement at Redacted Under FOI Exemption to undertake Redacted Under FOI Exemption. Redacted Under FOI Exemption will provide laboratory space and consumables for this work.

### Proposed Payment Plan

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	<p><b><u>Additional Definitions</u></b></p> <p><b>Redacted Under FOI Exemption</b> - A consecutive twelve (12) Month period during the Term, commencing on the date that the Authority formally confirms approval of the student in writing</p>
<b>1.3</b>	<b>Options or follow on work</b> <i>(if none, write 'Not applicable')</i>
	<b>Not applicable</b>
<b>1.4</b>	<b>Contract Management Activities</b>
	<p><b>Redacted Under FOI Exemption</b> to oversee the technical content of the work in conjunction with the academic <b>Redacted Under FOI Exemption</b>. The <b>Redacted Under FOI Exemption</b> will be responsible for assuring the technical quality of the work and deliverables from a <b>Redacted Under FOI Exemption</b> perspective and will confirm to the <b>Redacted Under FOI Exemption</b> Project Manager that the deliverables are acceptable.</p> <p>The <b>Redacted Under FOI Exemption</b> will have regular (quarterly) progress updates from the contractor.</p>
<b>1.5</b>	<b>Health &amp; Safety, Environmental, Social, Ethical, Regulatory or Legislative aspects of the requirement</b>
	<b>Redacted Under FOI Exemption</b>

1.6	Deliverables & Intellectual Property Rights (IPR)				
Ref.	Title	Due by	Format	Expected classification (subject to change)	What information is relevant to the deliverable
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<b>Predicted Under P/CB Examples</b>	[REDACTED]	[REDACTED] [REDACTED] [REDACTED]	[REDACTED] [REDACTED]	[REDACTED]	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
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