



Ministry
of Defence

**MOD Terms and Conditions for Contracting
for Innovation – Core Terms**

Contract Number DSTLX1000163998

**Titled: Stripping the Cell Wall as a Strategy
for Burkholderia Pseudomallei Survival in an
Infected Host**

4 Year PhD Contract Between

University of Leicester (the Contractor)

and

**Redacted under FOI exemption (the
Authority)**

1 Definitions - In the Contract:

The Authority means the Secretary of State for Defence of the United Kingdom of Great Britain and Northern Ireland, (referred to in this document as "the Authority"), acting as part of the Crown;

Business Day means 09:00 to 17:00 Monday to Friday, excluding public and statutory holidays;

Control means the power of a person to secure that the affairs of the Contractor (or Subcontractor) are conducted in accordance with the wishes of that person by the means of holding shares, or possession of voting powers in, or in relation to the Contractor; or by virtue of any powers conferred by the constitutional or corporate documents, or by any other document regulating the Contractor (or Subcontractor, as the case may be); and a change of Control occurs if a person who Controls the Contractor ceases to do so or if another person acquires Control of the Contractor;

Contract means the agreement concluded between the Authority and the Contractor, including all terms and conditions, schedules, specifications, plans, drawings, and other documentation, expressly made part of the agreement in accordance with Clause 2.b;

Contract Price means the amount set out in Schedule 2 (Schedule of Requirements) to be paid (inclusive of packaging and exclusive of any applicable VAT) by the Authority to the Contractor, for the full and proper performance by the Contractor of its obligations under the Contract;

Contractor means the person, firm or company specified as such in the Contract. Where the Contractor is an individual or a partnership, the expression shall include the personal representatives of the individual or of the partners, as the case may be;

Contractor Commercially Sensitive Information means the information listed as such in Schedule 5 (Contractor's Commercially Sensitive Information Form), which is information notified by the Contractor to the Authority, which is acknowledged by the Authority as being commercially sensitive;

Contractor Deliverables means the goods and / or services including packaging (and supplied in accordance with any QA requirements if specified) which the Contractor is required to provide under the Contract in accordance with the schedule of requirements. **Effective Date of Contract** means the date stated on the Contract or, if there is no such date stated, the date upon which both Parties have signed the Contract;

Firm Price means a price excluding Value Added Tax (VAT) which is not subject to variation;

Hazardous Contractor Deliverable means a Contractor Deliverable or a component of a Contractor Deliverable that is itself a hazardous material or substance or that may in the course of its use, maintenance, disposal, or in the event of an accident, release one or more hazardous materials or substances and each material or substance that may be so released;

Legislation means, in relation to the United Kingdom, any Act of Parliament, any subordinate legislation within the meaning of section 21 of the Interpretation Act 1978, any exercise of Royal Prerogative or any enforceable community right within the meaning of Section 2 of the European Communities Act 1972;

Notices means all notices, orders, or other forms of communication required to be given in writing under or in connection with the Contract;

Parties means the Contractor and the Authority, and Party shall be construed accordingly;

Subcontractor means any subcontractor engaged by the Contractor or by any other subcontractor of the Contractor at any level of subcontracting to provide Contractor Deliverables wholly or substantially for the purpose of performing (or contributing to the performance of) the whole or any part of this Contract and 'Subcontract' shall be interpreted accordingly;

Transparency Information means the content of this Contract in its entirety, including from time to time agreed changes to the Contract, and details of any payments made by the Authority to the Contractor under the Contract; and

Quality Assurance Requirements means those requirements specified in Schedule 3 – Contract Data Sheet.

2 General

a. The Contractor shall comply with all applicable Legislation, whether specifically referenced in this Contract or not
b. If there is any inconsistency between these terms and conditions and the associated documents expressly referred to therein, the conflict shall be resolved according to the following descending order of priority:

- (1) these terms and conditions;
- (2) the schedules; and
- (3) the documents expressly referred to in the agreement.

c. Neither Party shall be entitled to assign the Contract (or any part thereof) without the prior written consent of the other Party.

d. Failure or delay by either Party in enforcing or partially enforcing any provision of the Contract shall not be construed as a waiver of its rights or remedies. No waiver in respect of any right or remedy shall operate as a waiver in respect of any other right or remedy.

e. The Parties to the Contract do not intend that any term of the Contract shall be enforceable by virtue of the Contracts (Rights of Third Parties) Act 1999 by any person that is not a Party to it.

f. The Contract and any non-contractual obligations arising out of or in connection with it shall be governed by and construed in accordance with English Law, and subject to Clause 16 and without prejudice to the dispute resolution procedure set out therein, the Parties submit to the exclusive jurisdiction of the English courts. Other jurisdictions may apply solely for the purpose of giving effect to this Clause 2.f and for enforcement of any judgement, order or award given under English jurisdiction.

g. This Contract comes into effect on the Effective Date of Contract and will expire automatically on the date identified in Schedule 3 (Contract Data Sheet) unless it is otherwise terminated in accordance with the provisions of the Contract, or otherwise lawfully terminated.

h. This Contract constitutes the entire agreement between the Parties relating to the subject matter of the Contract. The Contract supersedes, and neither Party has relied upon, any prior negotiations, representations and undertakings, whether written or oral, except that this condition shall not exclude liability in respect of any fraudulent misrepresentation.

i. In addition to any other rights and remedies, the Authority shall have the right to terminate the Contract (in whole or in part) with immediate effect by giving written notice to the Contractor where the Contractor is in material breach of its obligations under the Contract. Where the Authority has terminated the Contract under Clause 2.i the Authority shall have the right to claim such damages as may have been sustained as a result of the Contractor's material breach of the Contract.

j. The Authority shall have the right to terminate the Contract if the Contractor is declared bankrupt or goes into liquidation or administration. This is without prejudice to any other rights or remedies under this Contract.

3 Amendments to Contract

- a. Any variation to the Contract shall have no effect unless expressly agreed in writing and signed by both Parties
- b. Without prejudice to Clause 3.a, where the Authority or the Contractor wishes to introduce a change which is not minor or which is likely to involve a change to the Contract Price, the provisions of Schedule 4 (Contract Change Control Procedure) shall apply.
- c. All amendments to this Contract shall be serially numbered, in writing, issued only by the Authority's representative (Commercial), and agreed by both Parties.
- d. The Contractor shall not carry out any work until any necessary change to the Contract Price has been agreed and a written amendment in accordance with Clause 3.a above has been issued.

4 Severability

- a. If any provision of the Contract is held to be invalid, illegal or unenforceable to any extent then:
 - (1) such provision shall (to the extent that it is invalid, illegal or unenforceable) be given no effect and shall be deemed not to be included in the Contract but without invalidating any of the remaining provisions of the Contract; and
 - (2) the Parties shall use all reasonable endeavours to replace the invalid, illegal or unenforceable provision by a valid, legal and enforceable substitute provision the effect of which is as close as possible to the intended effect of the invalid, illegal or unenforceable provision.

5 Transparency

- a. Subject to Clause 5.b, but notwithstanding Clause 6, the Contractor understands that the Authority may publish the Transparency Information to the general public. The Contractor shall assist and cooperate with the Authority to enable the Authority to publish the Transparency Information.
- b. Before publishing the Transparency Information to the general public in accordance with Clause 5.a, the Authority shall redact any information that would be exempt from disclosure if it was the subject of a request for information under the Freedom of Information Act 2000 or the Environmental Information Regulations 2004, including the Contractor Commercially Sensitive Information.
- c. The Authority may consult with the Contractor before redacting any information from the Transparency Information in accordance with Clause 5.b. The Contractor acknowledges and accepts that its representations on redactions during consultation may not be determinative and that the decision whether to redact information is a matter in which the Authority shall exercise its own discretion, subject always to the provisions of the Freedom of Information Act 2000 or the Environmental Information Regulations 2004.
- d. For the avoidance of doubt, nothing in this Clause 5 shall affect the Contractor's rights at law.

6 Disclosure of Information

- a. Information received or in connection with the Contract shall be managed in accordance with DEFCON 531 (ISC) and Clause 5.

7 Publicity and Communications with the Media

- a. The Contractor shall not, and shall ensure that any employee or Subcontractor shall not, communicate with representatives of the press, television, radio or other media on any matter concerning the Contract unless the Authority has given its prior written consent.

8 Notices

- a. A Notice served under the Contract shall be:
 - (1) in writing in the English language;
 - (2) authenticated by signature or such other method as may be agreed between the Parties;
 - (3) sent for the attention of the other Party's representative, and to the address set out in the Contract;
 - (4) marked with the number of the Contract; and
 - (5) delivered by hand, prepaid post (or airmail), facsimile transmission or, if agreed in the Contract, by electronic mail.
- b. Notices shall be deemed to have been received:
 - (1) if delivered by hand, on the day of delivery if it is the recipient's Business Day and otherwise on the first Business Day of the recipient immediately following the day of delivery;
 - (2) if sent by prepaid post, on the fourth Business Day (or the tenth Business Day in the case of airmail) after the day of posting;
 - (3) if sent by facsimile or electronic means:
 - (a) if transmitted between 09:00 and 17:00 hours on a Business Day (recipient's time) on completion of receipt by the sender of verification of the transmission from the receiving instrument; or
 - (b) if transmitted at any other time, at 09:00 on the first Business Day (recipient's time) following the completion of receipt by the sender of verification of transmission from the receiving instrument.

9 Change of Control of Contractor

- a. The Contractor shall notify the representative of the Authority at the address given in Clause 9.b, as soon as practicable, in writing of any intended, planned or actual change of Control of the Contractor, including any Subcontractors. The Contractor shall not be required to submit any Notice which is unlawful or is in breach of either any pre-existing non-disclosure agreement or any regulations governing the conduct of the Contractor in the UK or other jurisdictions where the Contractor may be subject to legal sanction arising from issuing such a Notice.
- b. Each Notice of change of Control shall be taken to apply to all contracts with the Authority. Notices shall be submitted to:

Mergers & Acquisitions Section
Strategic Supplier Management Team
Spruce 3b #1301
MOD Abbey Wood,

Bristol, BS34 8JH

and emailed to: DefComrcISSM-MergersandAcq@mod.gov.uk

The representative of the Authority shall consider the Notice of change of Control and advise the Contractor in writing of any concerns the Authority may have. Such concerns may include but are not limited to potential threats to national security, the ability of the Authority to comply with its statutory obligations or matters covered by the declarations made by the Contractor prior to Effective Date of Contract

c. The Authority may terminate the Contract by giving written notice to the Contractor within six months of the Authority being notified in accordance with clause 9.a. The Authority shall act reasonably in exercising its right of termination under this condition.

d. If the Authority exercises its right to terminate in accordance with clause 9.c the Contractor shall be entitled to request the Authority to consider making a payment representing any commitments, liabilities or expenditure incurred by the Contractor in connection with the Contract up to the point of termination. Such commitments, liabilities or expenditure shall be reasonably and properly chargeable by the Contractor and shall otherwise represent an unavoidable loss by the Contractor by reason of the termination of the Contract. Any payment under this clause 9.d must be fully supported by documentary evidence. The decision whether to make such a payment shall be at the Authority's sole discretion.

e. Notification by the Contractor of any intended, planned or actual change of Control shall not prejudice the existing rights of the Authority or the Contractor under the Contract nor create or imply any rights of either the Contractor or the Authority additional to the Authority's rights set out in this condition.

10 Progress Monitoring, Meetings and Reports

a. The Contractor shall attend progress meetings and deliver reports at the frequency or times (if any) specified in the Contract and shall ensure that its Contractor's representatives are suitably qualified to attend such meetings. Any additional meetings reasonably required shall be at no cost to the Authority.

11 Supply of Contractor Deliverables and Quality Assurance

a. The Contractor shall supply the Contractor Deliverables to the Authority at the Contract Price. Unless otherwise stated in Schedule 3, the Contract Price shall be a Firm Price.

b. The Contractor shall ensure that the Contractor Deliverables:

(1) correspond with Schedule 2;

(2) are of satisfactory quality (within the meaning of the Sale of Goods Act 1979, as amended) except that fitness for purpose shall be limited to the goods being fit for the particular purpose held out expressly by or made known expressly to the Contractor and in this respect the Authority relies on the Contractor's skill and judgement; and

(3) comply with any applicable Quality Assurance Requirements specified in the Contract.

c. The Contractor shall apply for and obtain any licences required to import any material required for the performance of the Contract in the UK. The Authority shall provide to the Contractor reasonable assistance with regard to any relevant defence or security matter arising in the application for any such licence.

12 Delivery / Collection

a. The Contract shall specify whether the Contractor Deliverables are to be delivered to the consignee by the Contractor or collected from the consignor by the Authority.

b. Title and risk in the Contractor Deliverables shall pass from the Contractor to the Authority on delivery or on collection in accordance with Clause 12.a.

c. The Authority shall be deemed to have accepted the Contractor Deliverables within a reasonable time after title and risk has passed to the Authority unless it has rejected the Contractor Deliverables within the same period.

13 Third Party Intellectual Property

a. Claims, liabilities and indemnities in respect of infringements or alleged infringements of third party intellectual property rights shall be handled in accordance with the provisions of DEFCON 632 (Edn 08/12).

b. Notwithstanding any other provisions of the Contract and for the avoidance of doubt, award of the Contract by the Authority and placement of any contract task under it does not constitute an authorisation by the Crown under Sections 55 and 56 of the Patents Act 1977 or Section 12 of the Registered Designs Act 1949. The Contractor acknowledges that any such authorisation by the Authority under its statutory powers must be expressly provided in writing, with reference to the acts authorised and the specific intellectual property involved.

14 Payment

a. Payment for Contractor Deliverables will be made by electronic transfer.

b. Where the Contractor submits an invoice to the Authority in accordance with Clause 14.a, the Authority will consider and verify that invoice in a timely fashion.

c. The Authority shall pay the Contractor any sums due under such an invoice no later than a period of 30 days from the date on which the Authority has determined that the invoice is valid and undisputed.

d. Where the Authority fails to comply with Clause 14.b and there is undue delay in considering and verifying the invoice, the invoice shall be regarded as valid and undisputed for the purpose of Clause 14.c after a reasonable time has passed.

e. The approval for payment of a valid and undisputed invoice by the Authority shall not be construed as acceptance by the Authority of the performance of the Contractor's obligations nor as a waiver of its rights and remedies under this Contract.

f. Without prejudice to any other right or remedy, the Authority reserves the right to set off any amount owing at any time from the Contractor to the Authority against any amount payable by the Authority to the Contractor under the Contract or under any other contract with the Authority, or with any other Government Department.

15 Subcontracting and Prompt Payment

a. Subcontracting any part of the Contract shall not relieve the Contractor of any of the Contractor's obligations, duties or liabilities under the Contract.

b. Where the Contractor enters into a Subcontract, he shall cause a term to be included in such Subcontract:

- (1) providing that where the Subcontractor submits an invoice to the Contractor, the Contractor will consider and verify that invoice in a timely fashion;
- (2) providing that the Contractor shall pay the Subcontractor any sums due under such an invoice no later than a period of thirty (30) days from the date on which the Contractor has determined that the invoice is valid and undisputed;
- (3) providing that where the Contractor fails to comply with Clause 15.b(1) above, and there is an undue delay in considering and verifying the invoice, that the invoice shall be regarded as valid and undisputed for the purposes of Clause 15.b(2) after a reasonable time has passed; and
- (4) requiring the counterparty to that Subcontract to include in any Subcontract which it awards, provisions having the same effect as Clauses 15.b(1) to 15.b(4).

16 Dispute Resolution

- a. The Parties will attempt in good faith to resolve any dispute or claim arising out of or relating to the Contract through negotiations between the respective representatives of the Parties having authority to settle the matter, which attempts may include the use of any alternative dispute resolution procedure on which the Parties may agree.
- b. In the event that the dispute or claim is not resolved pursuant to Clause 16.a the dispute shall be referred to arbitration and shall be governed by the Arbitration Act 1996. For the purposes of the arbitration, the arbitrator shall have the power to make provisional awards pursuant to Section 39 of the Arbitration Act 1996.
- c. For the avoidance of doubt it is agreed between the Parties that the arbitration process and anything said, done or produced in or in relation to the arbitration process (including any awards) shall be confidential as between the Parties, except as may be lawfully required in judicial proceedings related to the arbitration or otherwise. No report relating to the same shall be made beyond the tribunal, the Parties, their legal representative and any person necessary to the conduct of the arbitration, without the concurrence of all the Parties to the arbitration.

17 Termination for Corrupt Gifts

The Authority may terminate the Contract with immediate effect, without compensation, by giving written notice to the Contractor at any time after any of the following events:

- a. where the Authority becomes aware that the Contractor, its employees, agents or any Subcontractor (or anyone acting on its behalf or any of its or their employees):
 - (1) has offered, promised or given to any Crown servant any gift or financial or other advantage of any kind as an inducement or reward;
 - (2) commits or has committed any prohibited act or any offence under the Bribery Act 2010 with or without the knowledge or authority of the Contractor in relation to this Contract or any other contract with the Crown;
 - (3) has entered into this or any other contract with the Crown in connection with which commission has been paid or has been agreed to be paid by it or on its behalf, or to its knowledge, unless before the contract is made particulars of any such commission and of the terms and conditions of any such agreement for the payment thereof have been disclosed in writing to the Authority.
- b. In exercising its rights or remedies to terminate the Contract under Clause 17.a. the Authority shall:
 - (1) act in a reasonable and proportionate manner having regard to such matters as the gravity of, and the identity of the person committing the prohibited act;
 - (2) give due consideration, where appropriate, to action other than termination of the Contract, including (without being limited to):
 - (a) requiring the Contractor to procure the termination of a Subcontract where the prohibited act is that of a Subcontractor or anyone acting on its or their behalf;
 - (b) requiring the Contractor to procure the dismissal of an employee (whether its own or that of a Subcontractor or anyone acting on its behalf) where the prohibited act is that of such employee.
- c. Where the Contract has been terminated under Clause 17.a. the Authority shall be entitled to purchase substitute Contractor Deliverables from elsewhere and recover from the Contractor any costs and expenses incurred by the Authority in obtaining the Contractor Deliverables in substitution from another supplier.

18 Termination for Convenience

- a. The Authority shall have the right to terminate the Contract in whole or in part at any time by giving the Contractor at least 20 (twenty) business days written notice (or such other period as may be stated Schedule 3 – Contract Data Sheet).
- b. Subject to Clause 18.d, the Authority shall indemnify the Contractor against any commitments, liabilities or expenditure which would otherwise represent an unavoidable loss by the Contractor, subject to:
 - (1) the Contractor taking all reasonable steps to mitigate such loss; and
 - (2) the Contractor submitting a fully itemised and costed list of such loss, with supporting evidence, reasonably and actually incurred by the Contractor as a result of the termination of the Contract or relevant part thereof.
- c. The Contractor shall include in any Subcontract over £250,000 which it may enter into for the purpose of the Contract the right to terminate the Subcontract under the terms of Clauses 18.a to 18.b except that:
 - (1) the notice period for termination shall be as specified in the Subcontract, or if no period is specified 20 (twenty) business days; and
 - (2) the Contractor's right to terminate shall be restricted by including the following additional clause "Provided that this right is not exercised unless the main contract, or relevant part, has been terminated by the Secretary of State for Defence in accordance with the provisions of Clause 18".
- d. The Authority's total liability under the provisions of this Clause shall be limited to the total price of the Contractor Deliverables payable under the Contract (or relevant part), including any sums paid, due or becoming due to the Contractor at the date of termination.

19 Contractor's Records

- a. The Contractor and its Subcontractors shall maintain all records specified in and connected with the Contract (expressly or otherwise) and make them available to the Authority when requested on reasonable notice.
- b. The Contractor and its Subcontractors shall also permit access to relevant records that relate to the contractual obligations to supply goods or services under the Contract, held by or controlled by them and reasonably required by the Comptroller and Auditor General, their staff and any appointed representative of the National Audit Office, and provide

such explanations and information as reasonably necessary for the following purposes:

- (1) to enable the National Audit Office to carry out the Authority's statutory audits and to examine and/or certify the Authority's annual and interim report and accounts; and
- (2) to enable the National Audit Office to carry out an examination pursuant to Part II of the National Audit Act 1983 of the economy, efficiency and effectiveness with which the Authority has used its resources.

c. With regard to the records made available to the Authority under Clause 19.a, and subject to the provisions of Clause 6, the Contractor shall permit records to be examined and if necessary copied, by the Authority, or representative of the Authority, as the Authority may require.

d. Unless the Contract specifies otherwise the records referred to in this Condition shall be retained for a period of at least 6 years from:

- (1) the end of the Contract term;
- (2) the termination of the Contract; or
- (3) the final payment,

whichever occurs latest.

20 Goods Specific Conditions NOT USED

21 Project Specific Conditions

Contractors Personnel - Research Workers

a. The Authority accepts the following students, supervisors or other representatives, agents or employees of the Contractor (or any sub-contractor) to work directly on the contract ("Research Workers"):

Redacted under FOI exemption

b. The Contractor (and any sub-contractor) shall take all reasonable steps to avoid changes in the Research Workers once accepted. Where such a change is necessary, the Contractor shall obtain the prior written consent of the Authority, which shall not be unreasonably withheld.

c. Should it be necessary to change the Research Workers assigned to and accepted for the work under the Contract the Contractor shall notify the Authority in writing prior to the personnel starting work on the Contract. A Personal Particulars Form shall be completed for each additional person and sent to the Authority's Representative (Commercial – see Box 1 of Schedule 3 Annex A to the Contract – DEFFORM 111). The appropriate Dstl and MOD administrative procedures shall need to have been completed to the satisfaction of the Authority before any additional Contractor's Personnel may start work on this Contract.

d. All Research Workers engaged in support of the Contract shall have appropriate qualifications and competence and be in all respects acceptable to the Authority. The Authority reserves the right to reject any proposed Research Worker(s) whom it considers unsuitable for any reason. The decision of the Authority shall be final and it shall not be obliged to provide any reasons.

e. The only exception to process described in this condition is when all of the Contractors proposed Research Workers hold a full current SC clearance with no restrictions. In that case, even if the classification of the contract work is below SECRET a Personal Particulars form is not required. The SC provides the Authority with the requisite level of assurance that the individual is who they say they are and is appropriate to work on the contract. The Contractor will be required to provide appropriate evidence to demonstrate to the satisfaction of the Authority that the proposed Research Workers hold a full current SC clearance.

Invoice Submission

In order to obtain payment the Contractor shall:

a. submit an invoice to the Dstl Accounts Payable at the address set out in Box 11 of Schedule 3 Annex A to the Contract (DEFFORM 111) and send a PDF copy of the invoice to the Authority's Representative (Project – see Box 2 of Schedule 3 Annex A to the Contract – DEFFORM 111).

b. Invoices must quote the Contract number, Milestone number and Purchase Order number (where applicable).

Deliverable Report Marking

a. All Reports included as Deliverables under the Contract e.g. Progress and/or Final Reports etc. must comply with the Defence Research Reports Specification (DRRS) @ <https://www.gov.uk/guidance/submit-a-report-to-athena> which defines the requirements for the presentation, format and production of scientific and technical reports prepared for MOD.

b. Interim or Progress Reports: The report should detail, document, and summarise the results of work done during the period covered and shall be in sufficient detail to comprehensively explain the results achieved; substantive performance; a description of current substantive performance and any problems encountered and/or which may exist along with proposed corrective action. An explanation of any difference between planned progress and actual progress, why the differences have occurred, and if behind planned progress what corrective steps are planned.

c. Final Reports: shall describe the entire work performed under the Contract in sufficient detail to explain comprehensively the work undertaken and results achieved including all relevant technical details of any hardware, software, process or system developed there under. The technical detail shall be sufficient to permit independent reproduction of any such process or system.

d. The Contractor is to supply, at no additional cost to the Authority, a Minutes Secretary and produce minutes of the meetings if necessary.

e. The front page of any Minutes produced as a result of any Meeting between the Authority and the Contractor shall state:

"Nothing in these Minutes shall be construed as giving authority to proceed on work beyond that provided in the Contract or vary the terms and conditions of the Contract."

f. Reports shall be signed on the Contractor's behalf by a person authorised to commit the Contractor.

g. Marking of Deliverables (Documents)

- (1) In accordance with DEFCON 705 there are two categories of Technical Deliverable:
 - Full Rights Version
 - Limited Rights Version
- (2) In accordance with DEFCON 705 there are two categories of Technical Information:
 - Full Rights Information
 - Limited Rights Information
- (3) In accordance with DEFCON 705 the Contractor shall provide a Full Rights Version of each specified Technical Deliverable.
- (4) In any instance where the Full Rights Version does not provide all of the Technical Information the Contractor shall also provide a Limited Rights Version containing the balance of deliverable Technical Information.
- (5) In accordance with DEFCON 705, the Contractor shall mark each Technical Deliverable in such a manner that the ownership of the Intellectual Property Rights and the rights of the Authority under DEFCON 705 are clearly stated. For this purpose the Contractor shall follow the Document Marking Scheme attached at Schedule 6.
- (6) If subcontractor information is to be included in reports subject to DEFCON 705 then, unless the IPR in that information is owned by the Contractor, the name of the subcontractor(s) should be entered in the bracketed fields below in addition to the name of the Contractor.

Publication (Academia)

a. The Authority and the Contractor agree that it is a mutual aim of each Party that the Contractor publishes the results of work conducted under this Contract to the maximum extent possible, subject always to the publication requirements of DEFCON 705 and appropriate protection of the Parties Intellectual Property. In achieving this aim the Parties will consider issues relating to publication of the results in any review of the scope of the work under the Contract and where possible adjust the work to accommodate such issues. Any such adjustment to the scope of the work will be mutually agreed and shall aim to maintain the academic rigour of the project whilst still meeting the Authorities purpose of the Contract.

b. Neither the Contractor nor the Authority shall make use of the other's name or any of the other party's customers or agents of any information obtained under the Contract for publicity purposes without the prior written consent of the other party.

Third Party Intellectual Property

a. "AUTHORISATION BY THE CROWN FOR USE OF THIRD PARTY INTELLECTUAL PROPERTY RIGHTS

Notwithstanding any other provisions of the Contract and for the avoidance of doubt, award of the Contract by the Authority and placement of any contract task under it does not constitute an authorisation by the Crown under Sections 55 and 56 of the Patents Act 1977 or Section 12 of the Registered Designs Act 1949. The Contractor acknowledges that any such authorisation by the Authority under its statutory powers must be expressly provided in writing, with reference to the acts authorised and the specific intellectual property involved."

Ethical Review

a. Dstl would like to draw your attention to The MOD Research Ethics policy which governs all research undertaken or funded by the MOD that involves the use of human participants. The details of this requirement can be located on the MOD Research Ethics Committee (MODREC) website, www.science.mod.uk/engagement/modrec/modrec.aspx, which is on the www.science.mod.uk website under the Engagement section. Information on the MOD's ethical requirement is detailed in JSP 536 (Ethical Conduct and Scrutiny in MOD research Involving Human Participants). This document sets out the conditions for all investigators conducting research involving human participants as part of the MOD research programme, both clinical and non-clinical and details the MOD's process for the assessment of research protocols.

b. It shall be a condition of the contract that as certain work must be justified ethically as well as scientifically that the Authority reserves the right to terminate any contract with immediate effect any work which requires mandatory ethical approval to proceed where such approval is not given by the relevant review body.

c. For the purposes of these contracts ethical approval should be granted by the MOD's MODREC committee, Dstl will assist and help Universities where required with this process. Please note, the committee meets every three months officially but there are usually cases where we can hold a review in less time and request the committee convene sooner than the specified intervals. A milestone shall be associated with MODREC approval; if this is unsuccessful the project shall be halted until the issue is brought to a close, if this cannot be done then the contract shall be terminated at that point.

Government Furnished Information

The Authority does not give any warranty or undertaking as to the completeness, accuracy or fitness for any purpose of any of the Authority provided information and neither the Authority nor its agents or employees shall be liable to the

Contractor in contract (save as expressly provided elsewhere in the Contract), tort, statute or otherwise as a result of any inaccuracy, omission, unfitness for any purpose, or inadequacy of any kind in the Authority provided information.

LIMITATIONS ON LIABILITY

Unlimited liabilities

- 1.1 Neither Party limits its liability for:
 - 1.1.1 death or personal injury caused by its negligence, or that of its employees, agents or sub-contractors (as applicable);
 - 1.1.2 fraud or fraudulent misrepresentation by it or its employees;
 - 1.1.3 breach of any obligation as to title implied by section 12 of the Sale of Goods Act 1979 or section 2 of the Supply of Goods and Services Act 1982; or
 - 1.1.4 any liability to the extent it cannot be limited or excluded by law.
- 1.2 The financial caps on the Contractor's liability set out in Clause 1.4 below shall not apply to the following:
 - 1.2.1 for any indemnity given by the Contractor to the Authority under this Contract;
 - 1.2.2 The Contractor's indemnity in relation to DEFCON 91 (Intellectual Property in Software) and condition 13 (Third Party IP – Rights and Restrictions);
 - 1.2.3 The Contractor's indemnity in relation to TUPE;
 - 1.2.4 Breach by the Contractor of DEFCON 532A and Data Protection Legislation; and
- 1.3 The financial caps on the Authority's liability set out in Clause 1.5 below shall not apply to the following:
 - 1.3.1 For any indemnity given by the Authority to the Contractor under this Contract, including but not limited to DEFCON 514A and condition 18; and
 - 1.3.2 The indemnity given by the Authority in relation to TUPE shall be unlimited; and

Financial limits

- 1.4 Subject to Clauses 1.1 and 1.2 and to the maximum extent permitted by Law:
 - 1.4.1 The Contractor's total liability in respect of losses that are caused by Defaults of the Contractor shall in no event exceed:
 - (i) In respect of DEFCON 76 (ISC) (N/A) in aggregate;
 - (ii) In respect of condition 2i Redacted under FOI exemption in aggregate;
 - (iii) In respect of DEFCON 611 (ISC) (N/A) in aggregate; and
 - (iv) In respect of condition 12b Redacted under FOI exemption in aggregate;
 - 1.4.2 without limiting Clause 1.4.1 and subject always to Clauses 1.1, 1.2, 1.25 and 1.4.3, the Contractor's total liability throughout the Term in respect of all other liabilities (but excluding any Service Credits paid or payable in accordance with [Not Used] and [Not Used], whether in contract, in tort (including negligence), arising under warranty, under statute or otherwise under or in connection with this Contract shall be (N/A) in aggregate.
 - 1.4.3 on the exercise of any and, where more than one, each option period or agreed extension to the Term, the limitation of the Contractor's total liability (in aggregate) set out in Clauses 1.4.1 and 1.4.2 above shall be fully replenished such that on and from each such exercise or extension of the Term, the Authority shall be able to claim up to the full value of the limitation set out in Clauses 1.4.1 and 1.4.2 of this Contract.
- 1.5 Subject to Clauses 1.1, 1.3, 1.3.3 and 1.6, and to the maximum extent permitted by Law the Authority's total liability (in aggregate) whether in contract, in tort (including negligence), under warranty, under statute or otherwise under or in connection with this Contract shall in respect of all liabilities (taken together) be limited to the Charges paid by the Authority in the relevant Contract Year in respect of any and all claims in that Contract Year.
- 1.6 Clause 1.5 shall not exclude or limit the Contractor's right under this Contract to claim for this Charges.

Consequential loss

- 1.7 Subject to Clauses 1.1, 1.2 and 1.8, neither Party shall be liable to the other Party or to any third party, whether in contract (including under any warranty), in tort (including negligence), under statute or otherwise for or in respect of:
 - 1.7.1 indirect loss or damage;
 - 1.7.2 special loss or damage;

- 1.7.3 consequential loss or damage;
- 1.7.4 loss of profits (whether direct or indirect);
- 1.7.5 loss of turnover (whether direct or indirect);
- 1.7.6 loss of business opportunities (whether direct or indirect); or
- 1.7.7 damage to goodwill (whether direct or indirect),

even if that Party was aware of the possibility of such loss or damage to the other Party.

1.8 The provisions of Clause 1.7 shall not restrict the Authority's ability to recover any of the following losses incurred by the Authority to the extent that they arise as a result of a Default by the Contractor:

1.8.1 any additional operational and administrative costs and expenses arising from the Contractor's Default, including any costs paid or payable by the Authority:

- (i) to any third party;
- (ii) for putting in place workarounds for the Contractor Deliverables and other deliverables that are reliant on the Contractor Deliverables; and
- (iii) relating to time spent by or on behalf of the Authority in dealing with the consequences of the Default;

1.8.2 any or all wasted expenditure and losses incurred by the Authority arising from the Contractor's Default, including wasted management time;

1.8.3 the additional cost of procuring and maintaining in place transitional assistance and replacement deliverables for the remainder of the Term and any option period or agreed extension to the Term (including legal and other consultants' fees, re-procurement project costs, other expenses associated with such exercise and any increase in the fees for the replacement services over and above the Contract Price that would have been payable for the relevant Contractor Deliverables);

1.8.4 any losses arising in connection with the loss, destruction, corruption, inaccuracy or degradation of Authority data, or other data or software, including, to the extent the Authority data, other data or software can be recovered or reconstituted, the fees, costs and expenses of reconstituting such Authority data, data or software;

1.8.5 damage to the Authority's physical property and tangible assets, including damage under DEFCONs 76 (ISC) and 611 (ISC);

1.8.6 costs, expenses and charges arising from, or any damages, account of profits or other award made for, infringement of any third-party Intellectual Property Rights or breach of any obligations of confidence;

1.8.7 any additional costs incurred by the Authority in relation to the Authority's contracts with a third party (including any compensation or interest paid to a third party by the Authority) as a result of the Default (including the extension or replacement of such contracts);

1.8.8 any fine or penalty incurred by the Authority pursuant to Law and any costs incurred by the Authority in defending any proceedings which result in such fine or penalty; or

1.8.9 any savings, discounts or price reductions during the Term and any option period or agreed extension to the Term committed to by the Contractor pursuant to this Contract.

Invalidity

1.9 If any limitation or provision contained or expressly referred to in this Clause 1 is held to be invalid under any Law, it will be deemed to be omitted to that extent, and if any Party becomes liable for loss or damage to which that limitation or provision applied, that liability will be subject to the remaining limitations and provisions set out in this Clause 1.

Third party claims or losses

1.10 Without prejudice to any other rights or remedies the Authority may have under this Contract (including but not limited to any indemnity claim under DEFCONs 91 and condition 13 or at Law), the Authority shall be entitled to make a claim under this Contract against the Contractor in respect of any losses incurred by the Authority which arise out of a claim made against the Authority by a third party under any contract with that third party provided that such third party claim:

1.10.1 arises naturally and ordinarily as a result of the Contractor's failure to provide the Contractor Deliverables or failure to perform any of its obligations under this Contract; and

1.10.2 is a type of claim or loss that would have been recoverable under this Contract if the third party were a party to this Contract (whether as the Authority or the Contractor), such claim to be construed as direct losses for the purpose of this Contract.

No double recovery

1.11 Neither Party shall be entitled to employ such rights and remedies available to it so as to seek to recover more than once in respect of the same loss, but the Authority shall be entitled to use (singly or together) such rights and remedies available to the Authority so as to recover the full extent of any recoverable losses suffered or incurred, including any remedies the Authority may have against any guarantor.

22 Project Specific DEFCONs

DEFCON	Edn. Number	Title
76 (ISC)	06/21	Contractors Personnel at Government Establishments
514A	03/16	Failure of Performance under Research and Development Contracts
524	02/20	Rejection
525	10/98	Acceptance
531 (ISC)	12/19	Disclosure of Information
532A	08/20	Protection of Personal Data (Where personal data is not being processed on behalf of the Authority)
604	06/14	Progress Reports
608	07/21	Access and Facilities to be provided by the Contractor
612	06/21	Loss of Damage to the Articles
632	06/21	Third Party Intellectual Property – Rights & Restrictions. (Refer to clause 13)
642	07/21	Progress Meetings
658(ISC)	12/19	Redacted under FOI exemption
705	06/21	Intellectual Property Rights – Research and Technology

NOTE:

- 1) DEFCON 76(ISC) will only apply in the event that the Student and/or Supervisor undertake actual work in connection of supporting this PhD, at any Authority Facility.

Schedule 1 – Additional Definitions of Contract

The following Additional Definitions apply in respect of the “LIMITATIONS ON LIABILITY” Clause detailed under the Project Specific Conditions at Section 21 of the ISC Terms and Conditions of Contract,

“Charges”	means any of the charges for the provision of the Services, Contract Deliverables and the performance of any of the Contractor’s other obligations under this Contract, as determined in accordance with this Contract;
“Data Protection Legislation”	means all applicable data protection and privacy legislation in force from time to time in the UK, including but not limited to: (i) the General Data Protection Regulation ((EU)2016/679) as retained in UK law by the EU (Withdrawal) Act 2018 and the Data Protection, Privacy and Electronic Communications (Amendments etc) (EU Exit) Regulations 2019 (the “UK General Data Protection Regulation” or “UK GDPR”); (ii) the Data Protection Act 2018; (iii) the Privacy and Electronic Communications Directive 2002/58/EC (as updated by Directive 2009/136/EC) and the Privacy and Electronic Communications Regulations 2003 (SI 2003/2426) as amended; and (iv) all applicable legislation and regulatory requirements in force from time to time which apply to a party relating to the processing of personal data and privacy [<i>and the guidance and codes of practice issued by the Information Commissioner’s Office which apply to a party</i>];
“Default”	means any breach of the obligations of the relevant Party (including fundamental breach or breach of a fundamental term) or any other default, act, omission, negligence or statement of the relevant Party, its employees, servants, agents, or sub-contractors in connection with or in relation to the subject matter of this Contract and in respect of which such Party is liable to the other. In no event shall a failure or delay in the delivery of an Authority responsibility or an activity to be carried out by the Authority or its representatives in accordance with the Contract be considered a Default;
“Law”	means any applicable law, statute, bye-law, regulation, order, regulatory policy, guidance or industry code that has the equivalent of legal effect, rule of court or directives or requirements of any regulatory body, delegated or subordinate legislation or notice of any regulatory body;
“Service Credits”	means the amount that the Contractor shall credit or pay to the Authority in the event of a failure by the Contractor to meet the agreed Service Levels as set out/referred to in [Not used];
“Contract Term”	means the period commencing on 27 th September 2021 and ending on the expiry of 4 years or on earlier termination of this Contract.

Schedule 2 - Schedule of Requirements for Contract No: DSTLX1000163998

For: 4 Year Research PhD Studentship

Titled: Stripping the Cell Wall as a Strategy for Burkholderia Pseudomallei Survival in an Infected Host

Item Number	Specification	Delivery Date	Total Qty	Firm Price (£) Ex VAT
1	Year 1 Annual Report Purchase of cyber certified laptop	26/09/2022	1	Redacted under FOI exemption
2	Year 2 Annual Report	26/09/2023	1	Redacted under FOI exemption
3	Year 3 Annual Report	26/09/2024	1	Redacted under FOI exemption
4	Year 4 Annual Report	26/09/2025	1	Redacted under FOI exemption

Total FIRM PRICE Cost: £15,750.00

Note: Payment shall be made annually in arrears, upon satisfactory completion of the deliverables at the end of each PhD year.

Schedule 3 – Contract Data Sheet

Clause 2.g – Contract Period	Effective date of Contract: 27/09/2021 The Contract expiry date shall be: 26/09/2025
Clause 8 - Notices	Notices served under the Contract can be transmitted by electronic mail Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Notices served under the Contract shall be sent to the following address: Authority: Redacted under FOI exemption Contractor: Redacted under FOI exemption
Clause 10 – Progress Meetings	The Contractor shall be required to attend the following meetings: Type: Progress and technical review Frequency: Quarterly Location: Dstl
Clause 10 – Progress Reports	The Contractor is required to submit the following Reports: Type: Progress reports Frequency: Annually Method of Delivery: e-mail Delivery Address: as stated within schedule 3, appendix, box 2
Clause 11.a – Contract Price	All Schedule 2 line items shall be FIRM Price and inclusive of any UK custom and excise or other duty payable other than those stated below: Line Items Clause 11. refers
Clause 11.b – Quality Assurance	Is a Deliverable Quality Plan required for this Contract? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes the Deliverable Quality Plan must be set out as defined in AQAP 2105 and delivered to the Authority (Quality) within Business Days of Contract Award. Once agreed by the Authority the Quality Plan shall be incorporated into the Contract. The Contractor shall remain at all times, solely responsible for the accuracy, suitability and applicability of the Deliverable Quality Plan. Other Quality Assurance Requirements:
Clause 12 – Delivery/Collection	Contract Deliverables are to be: Delivered by the Contractor <input checked="" type="checkbox"/> Special Instructions: Collected by the Authority <input type="checkbox"/> Special Instructions (including consignor address if different from Contractor's registered address):

Clause 18 – Termination for Convenience

The Notice period for terminating the Contract shall be twenty (20) days unless otherwise specified here:

The Notice period for termination shall be 20 Business Days

Appendix - Addresses and Other Information

1. Commercial OfficerName: **Redacted** under FOI exemptionAddress: **Redacted** under FOI exemptionEmail **Redacted** under FOI exemption☎ **Redacted** under FOI exemption**8. Public Accounting Authority**

1. Returns under DEFCON 694 (or SC equivalent) should be sent to DBS Finance ADMT – Assets In Industry 1, Level 4 Piccadilly Gate, Store Street, Manchester, M1 2WD

☎ 44 (0) 161 233 5397

2. For all other enquiries contact DES Fin FA-AMET Policy, Level 4 Piccadilly Gate, Store Street, Manchester, M1 2WD

☎ 44 (0) 161 233 5394

2. Project Manager, Equipment Support Manager or PT Leader

(from whom technical information is available)

Name: **Redacted** under FOI exemptionAddress: **Redacted** under FOI exemptionEmail: **Redacted** under FOI exemption☎ **Redacted** under FOI exemption**9. Consignment Instructions**

The items are to be consigned as follows:

3. Packaging Design Authority

Organisation & point of contact:

(Where no address is shown please contact the Project Team in Box 2)

**10. Transport.****Redacted** under FOI exemption**4. (a) Supply / Support Management Branch or Order Manager:
Branch/Name:**

(b) U.I.N.

B. JSCS**Redacted** under FOI exemption**5. Drawings/Specifications are available from****11. The Invoice Paying Authority****Redacted** under FOI exemption**6. Intentionally Blank****12. Forms and Documentation are available through *:**

Ministry of Defence, Forms and Pubs Commodity Management
PO Box 2, Building C16, C Site

Lower Arncott

Bicester, OX25 1LP (Tel. 01869 256197 Fax: 01869 256824)

Applications via fax or email:Leidos-FormsPublications@teamleidos.mod.uk

7. Quality Assurance Representative:

Commercial staff are reminded that all Quality Assurance requirements should be listed under the General Contract Conditions.

AQAPS and **DEF STANs** are available from UK Defence Standardization, for access to the documents and details of the helpdesk visit <http://dstan.gateway.isg-r.r.mil.uk/index.html> [intranet] or <https://www.dstan.mod.uk/> [extranet, registration needed].

* NOTE

1. Many **DEFCONs** and **DEFFORMs** can be obtained from the MOD Internet Site: <https://www.aof.mod.uk/aofcontent/tactical/toolkit/index.htm>
2. If the required forms or documentation are not available on the MOD Internet site requests should be submitted through the Commercial Officer named in [Section 1.](#)

Schedule 4 - Contract Change Control Procedure (i.a.w. Clause 3.c) for Contract No: DSTLX1000163998

1. Authority Changes

Subject always to Condition 3 (Amendments to Contract), the Authority shall be entitled, acting reasonably, to require changes to the Contractor Deliverables (a "Change") in accordance with this Schedule 4.

2. Notice of Change

a. If the Authority requires a Change, it shall serve a Notice (an "Authority Notice of Change") on the Contractor.

b. The Authority Notice of Change shall set out the change required to the Contractor Deliverables in sufficient detail to enable the Contractor to provide a written proposal (a "Contractor Change Proposal") in accordance with Clause 3 below.

3. Contractor Change Proposal

a. As soon as practicable, and in any event within fifteen (15) Business Days (or such other period as the Parties may agree) after having received the Authority Notice of Change, the Contractor shall deliver to the Authority a Contractor Change Proposal.

b. The Contractor Change Proposal shall include:

- (1) the effect of the Change on the Contractor's obligations under the Contract;
- (2) a detailed breakdown of any costs which result from the Change;
- (3) the programme for implementing the Change;
- (4) any amendment required to this Contract as a result of the Change, including, where appropriate, to the Contract Price; and
- (5) such other information as the Authority may reasonably require.

c. The price for any Change shall be based on the prices (including all rates) already agreed for the Contract and shall include, without double recovery, only such charges that are fairly and properly attributable to the Change.

4. Contractor Change Proposal – Process and Implementation

a. As soon as practicable after the Authority receives a Contractor Change Proposal, the Authority shall:

- (1) evaluate the Contractor Change Proposal;
- (2) where necessary, discuss with the Contractor any issues arising and following such discussions the Authority may modify the Authority Notice of Change and the Contractor shall as soon as practicable, and in any event not more than ten (10) Business Days (or such other period as the Parties may agree) after receipt of such modification, submit an amended Contractor Change Proposal.

b. As soon as practicable after the Authority has evaluated the Contractor Change Proposal (amended as necessary) the Authority shall:

- (1) indicate its acceptance of the Change Proposal by issuing an amendment to the Contract in accordance with Condition 3 (Amendments to Contract); or
- (2) serve a Notice on the Contractor rejecting the Contractor Change Proposal and withdrawing (where issued) the Authority Notice of Change.

c. If the Authority rejects the Change Proposal it shall not be obliged to give its reasons for such rejection.

d. The Authority shall not be liable to the Contractor for any additional work undertaken or expense incurred unless a Contractor Change Proposal has been accepted in accordance with Clause 4b.(1) above.

5. Contractor Changes

If the Contractor wishes to propose a Change, it shall serve a Contractor Change Proposal on the Authority, which shall include all of the information required by Clause 3b above, and the process at Clause 4 above shall apply.

**Schedule 5 - Contractor's Commercially Sensitive Information Form (i.a.w. Clause 5) for
Contract No: DSTLX1000163998**

Contract No:
Description of Contractor's Commercially Sensitive Information:
Cross Reference(s) to location of sensitive information:
Explanation of Sensitivity:
Details of potential harm resulting from disclosure:
Period of Confidence (if applicable):
Contact Details for Transparency / Freedom of Information matters: Name: Position: Address: Telephone Number: Email Address:

SCHEDULE 6 – DEFENCE RESEARCH REPORT SPECIFICATION (DRRS) - DOCUMENT MARKING SCHEME (Note this will be included when DEFCON 705 is part of the contractual terms and conditions)

Reports comprising technical information DEFCON 705

Full Rights Version	Limited Rights Version
<p>Conditions Of Supply – Full Rights</p> <p>This document is supplied in confidence to MOD in accordance with Contract No DSTLX1000163998.</p> <p>The document comprises information proprietary to [Rights Owner] and whose unauthorised disclosure may cause damage to the interests of [Rights Owner]. (see note 2)</p> <p>The document is supplied to MOD as a FULL RIGHTS VERSION under the terms of DEFCON 705 (Edn 06/21) and, except with the prior written permission of [Rights Owner], MOD's rights of use and dissemination in the document are limited to those set out in that Condition and the Contract for the use of Full Rights Versions of Technical Deliverables.</p> <p>Requests for permission for wider use or dissemination should be made to the relevant [Rights Owner] Account Manager.</p>	<p>Conditions Of Supply – Limited Rights</p> <p>This document is supplied in confidence to MOD in accordance with Contract No DSTLX1000163998.</p> <p>The document comprises information proprietary to [Rights Owner] and whose unauthorised disclosure may cause damage to the interests of [Rights Owner]. (see note 2)</p> <p>The document is supplied to MOD as a LIMITED RIGHTS VERSION under the terms of DEFCON 705 (Edn 06/21) and, except with the prior written permission of [Rights Owner], MOD's rights of dissemination of the document are limited to UK government departments and to service providers under the terms of Clause 14 of DEFCON 705.</p> <p>Requests for permission for wider use or dissemination should be made to the relevant [Rights Owner] Account Manager. (see note 3)</p>

Notes:

1. This must always be the customer's contract number.
2. Include name of the Rights Owner(s), for example: supplier name, sub-contractor name(s) or a combination, as appropriate.
3. If conditions other than DEFCON 705 apply to third party information included in reports subject to DEFCON 705, then this should be clearly indicated.

SCHEDULE 7 - GOVERNMENT FURNISHED ASSET (GFA) REGISTER

No GFA issued under this Contract

SCHEDULE 8 – STATEMENT OF WORK

Redacted Under FOI Exemption have recently found that starvation of *B. pseudomallei* and *B. thailandensis* at 4°C resulted in the generation of cells that were not able to grow in standard media and developed a distinct rounded morphology. They retained viability according to live/dead staining and could be resuscitated in optimised liquid media.

This work will build on these findings and determine whether *B. pseudomallei* can produce 'L-forms' *in vivo* which may be associated with failed treatment and recurring melioidosis infection in humans. The proposed project will be focused on the investigation of L-forms and their importance for the development of chronic infections and drug resistance.

B. pseudomallei, the causative agent of melioidosis is naturally antibiotic resistant and is also associated with latent disease. We hypothesise that *B. pseudomallei* can produce L-forms *in vivo* which may be associated with failed treatment and recurring infections in humans. Many gram-positive and gram-negative bacteria can produce L-forms which are classed as bacteria without a cell wall. A recent study demonstrated that chronic recurring urinary tract infections are associated with bacterial L-forms, the urine environment promoting survival and replication of these cells. While the importance of L-forms for infections is indisputable, the molecular basis of their formation remains unknown. L-forms can be produced after treatment with antibiotic (targeting the cell wall), however other factors (e.g. human lysozymes) may contribute to their generation.

The proposed project will be focussed on the investigation of L-forms and their importance for the development of chronic infections and drug resistance. In particular, protocols for the generation of L-forms *in vitro* and the detection of L-forms in infected macrophages will be developed. We will also investigate molecular mechanisms for the generation of cell wall deficient *Burkholderia* and their switch to actively growing cells.

Requirement

The PhD student will be contracted to **Redacted Under FOI Exemption** to develop the methodology for the generation of *Burkholderia* L-forms and techniques for the investigation of L-forms in an infected host.

Milestone 1: Annual report – end of Yr1

Milestone 2: Annual report – end of Yr2

Milestone 3: Annual report – end of Yr3

Milestone 4: Annual report and PhD Thesis – end of Yr4

Title	Due By	Format	What Information is Required in the Deliverable
Quarterly Technical Reports	Every 3 Months	Presentation and/or Written Report	Quarterly Reports to include: <ul style="list-style-type: none"> • Update on technical progress • Progress report against project schedule
Annual Reports	Every 12 Months	Presentation and/or Written Report	Annual reports to include: <ul style="list-style-type: none"> • Update on technical progress • Progress report against project schedule Detail method development and analytical approach sufficient to inform joint publications and in preparation for future regulatory strategies
Thesis and Final Report	T=48 Months	Thesis and Final Report	Final report to include: <ul style="list-style-type: none"> • Key technical highlights from the 4 year PhD Detail method development and analytical approach sufficient to inform joint publications and in preparation for future regulatory strategies

Standard Deliverable Acceptance Criteria

All Reports shall be free from spelling and grammatical errors and shall be set out in accordance with the Statement Of Requirement (1) above

Specific Deliverable Acceptance Criteria

The Report shall summarise the results of work performed during the period covered in sufficient detail to comprehensively explain the results achieved, provide a description of current substantive performance and details of any problems encountered and/or which may exist along with proposed corrective action. The Report must contain sufficient detail to explain the work undertaken in that period, this could include supporting information such as raw data in an Excel or GraphPad Prism format, relevant scientific graphs and diagrams.

Safety, Environmental, Social, Ethical, Regulatory or Legislative Aspects of the Requirement

Redacted Under FOI Exemption