UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-Q/A

(Amendment No. 1)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the Quarterly Period Ended June 30, 2008

Commission File Number : 001-32587

PHARMATHENE, INC.

(Exact name of registrant as specified in its charter)

Delaware	**20-2726770**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

One Park Place, Suite 450, Annapolis, MD 21401
(Address of principal executive offices)

Registrant's telephone number, including area code: **(410) 269-2600**

Indicate by check whether the registrant (1) filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act of 1934 during the past 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one)

o Large accelerated filer	o Accelerated filer
o Non-accelerated filer	x Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes o No x

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date:

The number of shares of the registrant's Common Stock, par value $0.0001 per share, outstanding as of August 13, 2008 was 22,087,121.

EXPLANATORY NOTE

On August 14, 2008, PharmAthene, Inc. (the "Company") filed its quarterly report on Form 10-Q for the period ended June 30, 2008 (the "Original 10-Q"). This Amendment No. 1 to Form 10-Q ("Amendment No. 1") is being filed to include as exhibits certain material agreements with respect to which the Company is requesting confidential treatment.

In addition, as required by Rule 12b-15 under the Securities Exchange Act of 1934, as amended, new certifications by the Company's principal executive officer and principal financial officer are being filed or furnished as exhibits to this Amendment No. 1.

This Amendment No. 1 should be read in conjunction with the Original 10-Q, which continues to speak as of the date thereof. Except as specifically noted above, this Amendment No. 1 does not modify or update any other item or disclosure in the Original 10-Q. Accordingly, this Amendment No. 1 does not reflect events occurring after the filing of the Original 10-Q or modify, amend or update any related or other disclosures.

PART II

Item 6. Exhibits.

No.	Description

2.1	Amendment Agreement, dated April 2, 2008, among Avecia Investments Limited and Others and PharmAthene, Inc. and Others relating to a Sale and Purchase Agreement entered into on March 20, 2008 in respect of the Avecia Vaccines Business (incorporated by reference to Exhibit 2.1 to PharmAthene's Current Report on Form 8-K filed on April 8, 2008).
3.1	Amended and Restated Certificate of Incorporation of PharmAthene, Inc., as amended on June 13, 2008 (incorporated by reference to Exhibit 3.1 to PharmAthene Inc.'s Current Report on Form 8-K filed on June 19, 2008).
3.2	Bylaws of PharmAthene, Inc., as amended on April 28, 2008 (incorporated by reference to Exhibit 3.1 to PharmAthene, Inc's Current Report on Form 8-K filed on May 2, 2008).
10.29	Transitional Services Agreement, dated April 2, 2008, between Avecia Biologics Limited and PharmAthene UK Limited (incorporated by reference to Exhibit 10.29 to PharmAthene's Current Report on Form 8-K/A filed on June 18, 2008).
10.30	Form of PharmAthene Inc. Executive Employment Agreement.*
10.31	Form of PharmAthene Inc. Confidentiality and Non-Disclosure Agreement.*
10.32	Master Services Agreement, dated April 2, 2008, between PharmAthene UK Limited and Avecia Biologics Limited.*, +
10.33	Master Service Agreement, dated December 15, 2004, between Avecia Limited and the Secretary of State for Defence, acting through the Defence Science and Technology Laboratory (DSTL) +
10.34	Master Service Agreement, dated August 18, 2005, between Avecia Limited and DSTL +
10.35	Manufacturing Licence Agreement, dated June 20, 2006, between Avecia Limited and DSTL +
10.36	Manufacturing and Marketing Licence Agreement, dated December 4, 2006, between Avecia Limited and DSTL +

10.37	Letter Agreement, dated March 20, 2008, between Avecia Biologics Limited and DSTL, relating to the Manufacturing Licence Agreement and the Manufacturing and Marketing Licence Agreement +
10.38	PharmAthene, Inc. 2007 Long-Term Incentive Compensation Plan, as amended on April 13, 2008 (incorporated by reference to Annex B to PharmAthene Inc.'s Definitive Proxy Statement on Schedule 14A filed on May 15, 2008).
31.1	Certification of Principal Executive Officer Pursuant to SEC Rule 13a-14(a)/15d-14(a).
31.2	Certification of Principal Financial Officer Pursuant to SEC Rule 13a-14(a)/15d-14(a).
32.1	Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350.
32.2	Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350.

* Previously filed.

+ Portions of this exhibit have been omitted pursuant to a request for confidential treatment.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused the report to be signed on its behalf by the undersigned, thereunto duly authorized.

PHARMATHENE, INC.

Dated: August 19, 2008

By: /s/ David P. Wright
David P. Wright
Chief Executive Officer

Dated: August 19, 2008

By: /s/ Christopher C. Camut
Christopher C. Camut
Chief Financial Officer

PharmAthene, Inc.
Confidential Materials Omitted and Filed Separately with the
Securities and Exchange Commission
Confidential Portions denoted by [***]

MASTER SERVICES AGREEMENT

THIS AGREEMENT is made this 15th day of December 2004 between:

1. **AVECIA LIMITED** whose registered office is at PO Box 42, Hexagon House, Blackley, Manchester, M9 8ZS acting through its Avecia Biotechnology business ("**Avecia**"); and

2. **THE SECRETARY OF STATE FOR DEFENCE, acting through the Defence Science and Technology [***]**.

WHEREAS

(A) Dstl has expertise in the non-clinical, clinical and regulatory development of vaccines and support of programmes therefor ("**the Field**"). Dstl also has expertise in the conduct of Good Laboratory Practice ("**GLP**") potency assays.

(B) Avecia has been awarded a contract from the National Institute of Allergy and Infectious Diseases ("**NIAID**") (part of the United States Government) (Contract No. [***]) under which Avecia will, *inter alia*, continue to develop a recombinant [***] based on a single sub-unit protective antigen [***] and carry out Phase II clinical trials in respect of the Vaccine ("**the Prime Contract**").

(C) Avecia wishes to enter into an arrangement with Dstl in order to make use of Dstl's expertise to assist Avecia to fulfil its obligations under the Prime Contract.

(D) Dstl is willing to enter into an arrangement with Avecia on the following conditions.

NOW IT IS HEREBY AGREED AS FOLLOWS:

1. Performance of the Services

1.1 Subject to the terms and conditions hereinafter set out Avecia engages Dstl and Dstl undertakes to give professional advice and assistance to Avecia in the Field and, in particular, to provide the services listed in more detail in Schedule 1. Such advice, assistance and services are referred to in this Agreement as "**the Services**".

1.2 The Services shall be performed at the times and locations mutually agreed between the parties.

1.3 Dstl warrants that:

1.3.1 it shall perform the Services to the best of its ability and in accordance with the standards of care and skill to be reasonably expected of a provider of similar services competent in the Field; and

1.3.2 all personnel employed by Dstl to carry out the Services shall be suitably qualified and accredited with appropriate professional organisations and

no principal or employee of Dstl has been debarred by United States Food and Drug Administration, nor have debarment or disqualification proceedings been commenced and Dstl agrees to notify Avecia promptly if such proceedings are commenced.

2. Performance of GLP Potency Assays

2.1 Dstl shall carry out the potency assays ("**the GLP Potency Assays**") in accordance with GLP (in compliance with The United Kingdom Good Laboratory Practice Monitoring Authority) and in accordance with the provisions of Schedule which relate to the GLP Potency Assays.

2.2 For Drug Product release testing or Stability testing, Dstl shall complete the required analysis and provide to Avecia QC (Billingham) and nominee (i.e. stability site) finalised QA reviewed potency results, approved by Dstl's Quality Assurance unit, in respect of each sample of the Vaccine on which a potency assay has been carried out, within 75 calendar days of the mutually agreed assay start date of such sample set out in Schedule 2. This deadline may be extended in exceptional or unforeseen circumstances by mutual agreement between Avecia and Dstl. In the event that Dstl is either unable to: (i) complete the GLP Potency Assays within the 75 calendar day period above or (ii) carry out the number of GLP Potency Assays agreed between the parties pursuant to Schedule 2, then in each case Dstl shall prioritise the GLP Potency Assays as directed in writing by Avecia subject to mutual agreement between Avecia and Dstl. In such cases it is understood that it shall take longer than 75 calendar days for Dstl to provide the finalised QA reviewed potency results. All such requests for prioritisation shall be issued in writing by Sean Doherty, QC Vaccines Manager, Avecia QC (Billingham) for the attention of [***]. [***] shall have no liability to Avecia for any delay to Avecia's programme of work under the Prime Contract which arises as a result of late delivery of an approved report where such late delivery is as a consequence of late delivery of the relevant sample by Avecia or its subcontractors or where a sample is delivered which does not comply with the agreed sample presentation as defined in the Quality Agreement set out at Schedule 5, or to the extent that such delay is caused by Avecia's instruction to Dstl regarding prioritisation of the work.

2.3 If the report delivered to Avecia is discovered to be inaccurate or Dstl fails to carry out the GLP Potency Assays in accordance with GLP and in accordance with the provisions of Schedule 2 which relate to the GLP Potency Assays, Dstl shall repeat the GLP Potency Assays at a time directed by Avecia (taking into consideration the impact on the schedule for other GLP Potency Assays, but otherwise at Dstl's own expense and at no additional cost to Avecia.

2.4 Dstl shall complete all development activities related to the potency assay by the date for completion thereof stated in Schedule 1.

2.5 Dstl shall complete the validation of the potency assay, which includes the preparation of an approved validation report by the date for completion thereof stated in Schedule 1.

2.6 For the purpose of permitting a quality and compliance audit, including to ascertain compliance with GLP, Dstl shall grant to authorised representatives of Avecia and NIAID, upon reasonable notice, access to the Facility. Dstl shall promptly respond to NIAID's or Avecia's request and the parties shall agree on the time, scope and manner of the audit. Such access shall be granted subject to the following provisions:

2.6.1 Avecia and/or NIAID shall bear the cost of such audit unless such audit ascertains non-compliance with GLP or other agreed quality related issues.

2.6.2 Prior to any audit involving NIAID personnel, Avecia shall procure the entry by NIAID into a confidentiality agreement between Dstl and NIAID to ensure the confidentiality of Dstl's information.

2.6.3 Access shall be subject to and in compliance with Dstl and MOD Visitor and Security procedures.

2.6.4 Prior to any audit Avecia shall submit in writing to Dstl for approval, a list of those representatives who may need to enter the site for the purpose of, or in connection with, the audit, giving such particulars as Dstl may require, including full details of birthplace and parentage of any such Representative who: a) was not born in the United Kingdom; or b) if he was born in the United Kingdom, was born of parents either or both of whom were not born in the United Kingdom.

2.6.5 Prior to the commencement of the audit Dstl shall notify Avecia in writing which representatives have been approved for admission to the site.

2.6.6 Notwithstanding the provisions above if, in the opinion of Dstl, any representative shall misconduct himself, or it shall not be in the public interest for any person to be allowed access, then Avecia or NIAID shall remove such person without delay on being required to do so.

2.6.7 The decision of Dstl upon any matter arising under Clauses 2.6.3 to 2.6.6 inclusive shall be final and conclusive.

3. Duration

This Agreement shall be deemed to have commenced on 1st October 2003 and shall continue for the period of the Prime Contract or any extension, variation or replacement thereof, currently estimated to be 13th October 2006.

4. Price and Payment

4.1 The consideration for the Services and the GLP Potency Assays is set out in Schedule 3 ("**the Pricing Schedule**").

4.2 Dstl shall issue monthly invoices in arrears in respect of the cost of the Services and the GLP Potency Assays set out in Parts A and B of the Pricing Schedule on the 8th day of each month and Avecia shall pay such sums by the end of the month following the month of the date of the relevant invoice, subject to formal sign-off by Avecia that the breakdowns submitted under Clause 4.5 represent an accurate reflection of the work carried out during the period invoiced. Avecia shall make payment by means of the Bankers Automated Clearing Service (BACS) directly into Dstl's nominated bank account.

4.3 In addition to payment of the cost of the Services and the GLP Potency Assays, Avecia shall pay to Dstl the fee set out in Part C of the Pricing Schedule. The total fee shall be payable in monthly instalments as described in Part C of the Pricing Schedule from the date of signature of this Agreement. Dstl shall issue a separate invoice for each monthly instalment of the fee, which shall be separate from the Dstl Invoice for costs rendered under Clause 4.2 above. Avecia shall settle such invoices by the end of the month following the month of the date of the invoice.

4.4 Since the total fee is a percentage of actual cost, as set out in Part C of the Pricing Schedule, a review mechanism will be put in place whereby appropriate adjustments to the fee are made to ensure that it is in line with actual cost. The review period will be six monthly.

4.5 Avecia shall, in its sole discretion, have the right to withhold payment of any invoice submitted under Clause 4.3 if Dstl does not perform according to the performance targets set out in Clauses 2.2, 2.4 and 2.5 of this Agreement and in accordance with Schedule 1, as assessed by Avecia's Contracting Officer. In the event that Dstl disputes Avecia's assessment of Dstl's performance, the provisions of Clause 16.2 shall apply.

4.6 Dstl shall keep activity records detailing the work carried out by it under this Agreement, including a breakdown of the number of hours spent by each person in carrying out such work. Dstl shall provide a breakdown of the number of hours spent by each person in carrying

out the work under this Agreement with each invoice submitted under Clause 4.2. Avecia shall be entitled to inspect all activity records and supporting documentation at Dstl's premises on reasonable notice and during normal business hours.

4.7 Dstl will not make any purchase or incur any liability on behalf of Avecia nor in any way bind Avecia nor do anything likely to cause Dstl to be taken by third parties as acting as an agent of Avecia, except with Avecia's specific prior written authorisation.

4.8 Dstl will be responsible for all income tax liabilities and national insurance or similar contributions in respect of any fees payable hereunder and hereby agrees to indemnify Avecia in respect of any claims which may be made against Avecia by the relevant authorities in respect of income tax or national insurance or similar contributions and any costs, interest, penalties and gross up which may be found due in respect of such fees.

4.9 With the exception of Avecia's review of [***] activity records and supporting documentation which shall take place under Clause 4.6 above, any financial audit shall take place in the following manner:

4.9.1 [***] shall make available for inspection and/or audit all records mutually agreed as necessary to substantiate its performance under this Agreement. Said records are subject to inspection and audit by appropriate audit agencies. Dstl agrees to retain any and all records associated with this Agreement for three (3) years following Avecia's final payment and until such time as any disputes arising therefrom are resolved. All audit disallowances under this Agreement shall be the responsibility of Dstl.

4.9.2 [***] shall maintain accurate records of all costs incurred in the performance of this work. Dstl warrants that it conducts audits, which it believes meet the standards as required by OMB Circulars, federal cost principles, or cost accounting standards applicable to its performance as a recipient of US Government funds, that such audit has revealed no material findings and agrees to provide Avecia with audit report(s) attesting to the fact that Dstl's records covering the period of this Agreement have been audited in accordance with such requirements.

5. Confidentiality

5.1 [***] shall at all times while this Agreement remains in force and thereafter keep confidential any and all commercial and technical information relating to any of the existing or planned products, business, research and/or development activities, customers and suppliers of Avecia and/or any subsidiary or associated company of Avecia and all other information relating to Avecia and/or any subsidiary or associated company of Avecia and/or to any of the activities or financial affairs of Avecia or any such subsidiary or associated company which it may acquire or to which he may have access during or by virtue of its participation in this Agreement and any information generated in its provision of the Services and performance of the GLP Potency Assays ("**the Confidential Information**"). The Confidential Information shall be used by Dstl for the sole purpose of fulfilling its obligations under this Agreement and shall not at any time while this Agreement is in force or thereafter be disclosed by Dstl to any third party without the prior written consent of Avecia. PROVIDED THAT Dstl shall have the right to use, or have used, any information generated in its performance of the tasks allocated to it under this Agreement for any United Kingdom Government purpose free of any payments to Avecia, its subcontractors or the US Government.

5.2 The obligations of confidentiality contained in Clause [***] shall not apply to any Confidential Information which:

(a) is now or hereafter becomes available to the public otherwise than by a breach of this Agreement: or

(b) in the case of Confidential Information received by Dstl from Avecia Dstl can show that such Confidential Information was in its possession free from obligations of confidentiality prior to such receipt; or

(c) is received by Dstl from a third party who has not directly or indirectly received it from Avecia and who has not imposed any restrictions as to its disclosure.

6. Intellectual Property

6.1 In this Article 6, the following terms shall have the meanings attributed to them:

Background IP	Intellectual Property generated by [***]: (1) prior to this Agreement, (2) independently of this Agreement, or and, in any case, necessary for the performance of the Prime Contract.
Development Contract	the contract between Dstl and Avecia dated 19th February 2002 under which Avecia carved out process development and production work in relation to the Vaccine on behalf of Dstl.
Foreground IP	Intellectual Property generated by Dstl under this Agreement.
Intellectual Property	all know-how, inventions, discoveries, devices, data, utility models, patents, designs, copyrights, or other industrial or intellectual property and all applications therefor.

6.2 Dstl grants to Avecia a royalty-free, world-wide licence (with the right to grant sub-licences) to use Background 1P to perform the Prime Contract, and any other contract awarded by NIAID which covers the same or substantially similar work to that covered by the Prime Contract. PROVIDED THAT no rights are hereby granted to Avecia to use, or have used, Background IP for the manufacture and supply of doses of recombinant protective antigen anthrax vaccine which meet the regulatory deliverables as required for drug licensure in the USA, which rights are already available to Avecia under the licence agreement reference [***] offered by Dstl to Avecia on 29th April 2004.

6.3 In addition to the licence referred to in Clause 6.2, with respect to any Foreground IP, including subject inventions in which Dstl retains title under FAR clause [***], Avecia shall have a nonexclusive, non-transferable, irrevocable, paid-up licence to practice or have practiced for or on behalf of Avecia the subject invention throughout the world. Dstl shall ensure that it secures these rights for Avecia when placing sub-contracts under this Agreement.

6.4 In consideration for the licences set out in Clauses 6.2 and 6.3, Avecia shall supply to Dstl, a complete set of all data produced by Avecia and its subcontractors (other than Dstl) in the performance of the Prime Contract, and Dstl shall have the right to use, or have used, the said data, free of any payments to Avecia, its subcontractors or the US Government, for any United Kingdom Government purpose. Avecia shall ensure that it secures these rights for Dstl when placing sub-contracts under the Prime Contract. For the avoidance of doubt, if and to the extent that the said data includes Avecia's Background Intellectual Property (as defined in the Development Contract), then nothing in this Clause 6.4 shall be construed so as to vary Avecia's rights in respect of such Background Intellectual Property set out in clause 7.1 of the Development Contract.

7. Termination

7.1 Avecia may terminate this Agreement immediately by notice in writing at any time.

7.2 Upon termination of this Agreement, Dstl, if requested by Avecia, shall immediately deliver up to Avecia all copies of and other embodiments of any work in progress pursuant to the Services or the GLP Potency Assays and any correspondence, documents, specifications, and any other property belonging to Avecia or NIAID which may be in its possession.

7.3 In the event of termination for any reason, the provisions of FAR Clause [***], incorporated by reference under Clause 12.1, shall apply.

8. Key Personnel

The following individuals ("**Key Personnel**") are considered to be essential to the work being performed hereunder:

Name	Title
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]

None of the Key Personnel shall be replaced in his/her role for the duration of this contract unless otherwise agreed between the parties. Dstl shall ensure that any replacement for a role possesses similar qualifications and experience to the Key Personnel it proposes to replace.

9. Publicity And Publication

9.1 During the term of this Agreement neither party shall use the other party's name in any advertising or promotional material unless the other party gives its prior written approval. The party wishing to issue such advertising or promotional material shall provide a copy thereof to the other for review.

9.2 Without prejudice to any other provision in this Agreement neither party shall publish any information obtained under this Agreement including the results of work conducted without the prior written permission of the other party. Such permission shall not be unreasonably withheld or delayed. Such permission shall be given where security considerations allow and subject to appropriate protection of the party's Intellectual Property.

9.3 Any request for publication shall be submitted in writing.

9.4 In the event of any publication the provisions of HHSAR [***] shall apply.

10. Compliance with Rules

Whilst providing the Services and carrying out the GLP Potency Assays, Dstl shall observe and comply with all applicable local legislation and any relevant regulations and codes of practice issued thereunder and with all other applicable legal or regulatory requirements and all policies, procedures, regulations and rules of Avecia or applicable at any premises of Avecia to which Dstl may have access whilst providing the Services or carrying out the GLP Potency Assays hereunder.

11. Liability and Indemnity

11.1 Subject to Clause 11.2 below, Avecia shall defend, indemnify and hold Dstl and its directors, officers, employees and affiliates ("**Dstl Indemnified Parties**") harmless from and against (1) any damage or loss suffered by the Dstl Indemnified Parties and (2) all third party claims, liabilities, judgements and other costs (including, but not limited to, reasonable attorney fees and expenses incurred in investigating, defending and settling claims and in enforcing Avecia's obligations under this Clause 11.1) (collectively "**Avecia Liabilities**") of any kind resulting from the use, sale, distribution, advertising or marketing of the Vaccine by or on behalf of Avecia.

11.2 Avecia's obligations to Dstl Indemnified Parties under Clause 11.1 shall not extend to any Avecia Liabilities to the extent that such Avecia Liabilities arise as a result of the negligence, wilful misconduct or breach of this Agreement by the Dstl Indemnified Parties.

11.3 Dstl shall defend, indemnify and hold Avecia, and its directors, officers, employees and affiliates ("**Avecia Indemnified Parties**") harmless from and against (1) any damage or loss suffered by the Avecia Indemnified Parties and (2) all third party claims, liabilities, judgements and other costs (including, but not limited to, reasonable attorney fees and expenses incurred in investigating, defending and settling claims and in enforcing Dstl's obligations under this Clause 11.3) of any kind resulting from the negligence, wilful misconduct or breach of this Agreement by Dstl (collectively "**Dstl Liabilities**"). Save to the extent that such Dstl Liabilities are due to the wilful misconduct of Dstl, Dstl's liability under this Clause 11.3 to Avecia shall be limited to [***] per incident.

11.4 Dstl's obligations to Avecia Indemnified Parties under Clause 11.3 shall not extend to any Dstl Liabilities to the extent that such Dstl Liabilities arise as a result of the negligence, wilful misconduct or breach of this Agreement by the Avecia Indemnified Parties or their subcontractors.

12. FAR and HHSAR Flowdown Provisions

The FAR and HHSAR clauses contained in the Prime Contract and listed in Schedule 4 are incorporated by reference into this Agreement.

13. Assignment and Subcontracting

13.1 Neither party to the Contract shall give, bargain, sell, assign, or otherwise dispose of the Contract or any part thereof, or the benefit or advantage of the Contract or any part thereof, without the previous consent in writing of the other party, such consent not to be unreasonably withheld or delayed.

13.2 Dstl shall not be entitled to subcontract any part of this Agreement.

14. Entire Agreement and Scope Changes

14.1 This Agreement constitutes the entire agreement of the parties in relation to the provision of the Services and, save as set out in Clause 14.2 below, shall not be modified or varied except as agreed in writing by Avecia and Dstl.

14.2 Avecia shall be entitled to make changes to the scope of the Services or the GLP Assays by giving not less than 60 days' notice in writing to Dstl. In the case of a reduction in the Services or number of GLP Assays, Dstl shall carry out the reduced Services or number of GLP Assays as directed by Avecia in such written notice and the fees payable under Clause 4 shall be adjusted accordingly. In the case of an increase in the Services or number of GLP Assays, Dstl shall provide a written proposal of the increased cost therefor and shall carry out such increased Services of GLP Assays on written agreement by Avecia.

15. Force Majeure

15.1 Either party shall not be liable for any failure to perform or any delay in performing its obligations if the failure or delay is due directly or indirectly to any cause beyond the reasonable control of that party, which shall include but is not limited to the following:

15.1.1 any Act of God, fire, flood, explosion, accident, civil disturbance, emergency or period of armed conflict;

15.1.2 any major plant or equipment failure which results in closure of a facility;

15.1.3 the postponement of any trial or test as a result of adverse weather conditions or conditions being otherwise unsafe; and

15.1.4 in the case of the Contractor, the withdrawal of facilities or resources due to specific direction from a higher UK Government authority.

15.2 In the event of a delay arising from such circumstances, the affected party will provide full details to the other party and shall take all reasonable steps to mitigate the effect of the delay. Performance of the party's obligations under this contract shall be suspended for such time as the delay continues.

16. Law, Disputes and Jurisdiction

16.1 This Agreement is governed by and shall be construed and interpreted in accordance with the laws of England and Wales. Any proceedings between the parties shall be conducted in the English language.

16.2 In the event of any dispute, difference or disagreement concerning this Agreement, the parties shall seek to resolve the matter within

30 days by referring it to the Commercial Director, Vaccines Business, Avecia Biotechnology, the Head of Commercial Services, DSTL and, if Avecia considers it necessary, the Contracting Officer under the Prime Contract.

16.3 The parties agree to refer any matter or dispute which is not able to be resolved pursuant to Clause 15.2 to settlement in good faith by Alternative Dispute Resolution ("**ADR**").

16.4 In the event that a dispute arises between NIAID and Avecia which relates to the Services but which is not also the subject of a dispute between Avecia and Dstl, Dstl shall provide reasonable assistance to Avecia in order for Avecia to pursue the matter in accordance to FAR Clause [***], incorporated into the Prime Contract by reference.

Signed for and on behalf of **AVECIA LIMITED** by

Signature: /s/ Derrick Nicholson

Name: Derrick Nicholson

Position: C.F.O.

Date: 9 December 2004

Signed for and on behalf of **THE SECRETARY OF STATE FOR DEFENCE, acting through the Defence Science and Technology Laboratory** by

Signature: [***]

Name: [***]

Position: [***]

Date: [***]

[Schedule 1 - The Services]

[***]

[***]

[***]

[Schedule 2 - The GLP Potency Assays]

[***]

[***]

[***]

[Schedule 3 - The Pricing Schedule]

[***]

[***]

Schedule 4 - [***]

[***]

Schedule 4 - [***]

[***]

Schedule 4 - [***]

[***]

[Schedule 5 - Quality Agreement]

[***]

PRIVATE BETWEEN THE PARTIES

PharmAthene, Inc.
Confidential Materials Omitted and Filed Separately with the
Securities and Exchange Commission
Confidential Portions denoted by [***]

MASTER SERVICES AGREEMENT

THIS AGREEMENT is made this 18th day of August 2005 between:

1. **AVECIA LIMITED** whose registered office is at PO Box 42, Hexagon House, Blackley, Manchester, M9 8ZS acting through its Avecia Biotechnology business ("**Avecia**"); and

2. **THE SECRETARY OF STATE FOR DEFENCE, [***]**.

WHEREAS

(A) Dstl has expertise in the non-clinical, clinical and regulatory development of vaccines and support of programmes therefor ("**the Field**"). Dstl also has expertise in the conduct of Good Laboratory Practice ("**GLP**") potency assays.

(B) [***]

(C) Avecia wishes to enter into an arrangement with Dstl in order to make use of [***] to fulfil its obligations under the Prime Contract.

(D) Dstl is willing to enter into an arrangement with Avecia on the following conditions.

NOW IT IS HEREBY AGREED AS FOLLOWS:

1. **Performance of the Services**

1.1 Subject to the terms and conditions hereinafter set out Avecia engages Dstl and [***] professional advice and assistance to Avecia in the Field and, in particular, to provide the services listed in more detail in Schedule 1. Such advice, assistance and services are referred to in this Agreement as "**the Services**".

1.2 The Services shall be performed at the times and locations mutually agreed between the parties.

1.3 Dstl warrants that:

1.3.1 it shall perform the Services to the best of its ability and in accordance with the standards of care and skill to be reasonably expected of a provider of similar services competent in the Field; and

1.3.2 all personnel employed by Dstl to carry out the Services shall be suitably qualified and accredited with appropriate professional organisations and no principal or employee of Dstl has been debarred by United States Food and Drug Administration, nor have debarment or disqualification proceedings been commenced and Dstl agrees to notify Avecia promptly if such proceedings are commenced.

2. **Performance of GLP Potency Assays**

2.1 Dstl shall carry out the potency assays ("**the GLP Potency Assays**") in accordance with GLP (in compliance with The United Kingdom Good Laboratory Practice Monitoring Authority) and in accordance with the provisions of Schedule 2 which relate to the GLP Potency Assays.

2.2 For Drug Product release testing or Stability testing, Dstl shall complete the required analysis and provide to Avecia QC (Billingham) and nominee (i.e. stability site) finalised QA reviewed potency results, approved by Dstl's Quality Assurance unit, in respect of each sample of the Vaccine on which a potency assay has been carried out, within eighty seven (87) calendar days of the mutually agreed assay start date of such sample set out in Schedule 2. This deadline may be extended in exceptional or unforeseen circumstances by mutual agreement between Avecia and Dstl. In the event that Dstl is either unable to: (i) complete the GLP Potency Assays within the eighty seven (87) calendar day period above or (ii) carry out the number of GLP Potency Assays agreed between the parties pursuant to Schedule 2, then in each case Dstl shall prioritise the GLP Potency Assays as directed in writing by Avecia subject to mutual agreement between Avecia and Dstl. In such cases it is understood that it shall take longer than eighty seven (87) calendar days for Dstl to provide the finalised QA reviewed potency results. All such requests for prioritisation shall be issued in writing by [***] Vaccines Manager, Avecia QC (Billingham) for the attention of [***]. Dstl shall have no liability to Avecia for any delay to Avecia's programme of work under the Prime Contract which arises as a result of late delivery of an approved report where such late delivery is as a consequence of late delivery of the relevant sample by Avecia or its subcontractors or where a sample is delivered which does not comply with the agreed sample presentation as defined in the Quality Agreement set out at Schedule 5, or to the extent that such delay is caused by Avecia's instruction to Dstl regarding prioritisation of the work.

2.3 If the report delivered to Avecia is discovered to be inaccurate or Dstl fails to carry out the GLP Potency Assays in accordance with GLP and in accordance with the provisions of Schedule 2 which relate to the GLP Potency Assays, Dstl shall repeat the GLP Potency Assays at a

time directed by Avecia (taking into consideration the impact on the schedule for other GLP Potency Assays, but otherwise at Dstl's own expense and at no additional cost to Avecia.

2.4 For the purpose of permitting a quality and compliance audit, including to ascertain compliance with GLP, Dstl shall grant to authorised representatives of

Avecia and NIAID, upon reasonable notice, access to the Facility. Dstl shall promptly respond to NIAID's or Avecia's request and the parties shall agree on the time, scope and manner of the audit. Such access shall be granted subject to the following provisions:

2.4.1 Avecia and/or NIAID shall bear the cost of such audit unless such audit ascertains non-compliance with GLP or other agreed quality related issues.

2.4.2 Prior to any audit involving NIAID personnel, Avecia shall procure the entry by NIAID into a confidentiality agreement between Dstl and NIAID to ensure the confidentiality of Dstl's information.

2.4.3 Access shall be subject to and in compliance with Dstl and MOD Visitor and Security procedures.

2.4.4 Prior to any audit Avecia shall submit in writing to Dstl for approval, a list of those representatives who may need to enter the site for the purpose of, or in connection with, the audit, giving such particulars as Dstl may require, including full details of birthplace and parentage of any such Representative who: a) was not born in the United Kingdom; or b) if he was born in the United Kingdom, was born of parents either or both of whom were not born in the United Kingdom.

2.4.5 Prior to the commencement of the audit Dstl shall notify Avecia in writing which representatives have been approved for admission to the site.

2.4.6 Notwithstanding the provisions above if, in the opinion of Dstl, any representative shall misconduct himself, or it shall not be in the public interest for any person to be allowed access, then Avecia or NIAID shall remove such person without delay on being required to do so.

2.4.7 The decision of Dstl upon any matter arising under Clauses 2.4.3 to 2.4.6 inclusive shall be final and conclusive.

3. **Duration**

This Agreement shall be deemed to have commenced on 1st October 2004 and shall continue for the period of the Prime Contract or any extension, variation or replacement thereof, currently estimated to be 31st March 2007.

4. **Price and Payment**

4.1 The consideration for the Services and the GLP Potency Assays is set out in [***].

4.2 Dstl shall issue monthly invoices in arrears in respect of the cost of the Services and the GLP Potency Assays set out in Parts A and B of the Pricing Schedule on the 8th day of each month and Avecia shall pay such sums by the end of the month following the month of the date of the relevant invoice, subject to formal sign-off

by Avecia that the breakdowns submitted under Clause 4.5 represent an accurate reflection of the work carried out during the period invoiced. Avecia shall make payment by means of the Bankers Automated Clearing Service (BACS) directly into Dstl's nominated bank account.

4.3 In addition to payment of the cost of the Services and the GLP Potency Assays, Avecia shall pay to Dstl the fee set out in Part C of the Pricing Schedule. The total fee shall be payable in monthly instalments as described in Part C of the Pricing Schedule from the date of signature of this Agreement. Dstl shall issue a separate invoice for each monthly instalment of the fee, which shall be separate from the Dstl invoice for costs rendered under Clause 4.2 above. Avecia shall settle such invoices by the end of the month following the month of the date of the invoice.

4.4 Since the total fee is a percentage of actual cost, as set out in Part C of the Pricing Schedule, a review mechanism will be put in place whereby appropriate adjustments to the fee are made to ensure that it is in line with actual cost. The review period will be six monthly.

4.5 Avecia shall, in its sole discretion, have the right to withhold payment of any invoice submitted under Clause 4.3 if Dstl does not perform according to the performance targets set out in Clauses 2.2 of this Agreement and in accordance with Schedule 1, as assessed by Avecia's Contracting Officer. In the event that Dstl disputes Avecia's assessment of Dstl's performance, the provisions of Clause 16.2 shall apply.

4.6 Dstl shall keep activity records detailing the work carried out by it under this Agreement, including a breakdown of the number of hours spent by each person in carrying out such work. Dstl shall provide a breakdown of the number of hours spent by each person in carrying out the work under this Agreement with each invoice submitted under Clause 4.2. Avecia shall be entitled to inspect all activity records and supporting documentation at Dstl's premises on reasonable notice and during normal business hours.

4.7 Dstl will not make any purchase or incur any liability on behalf of Avecia nor in any way bind Avecia nor do anything likely to cause Dstl to be taken by third parties as acting as an agent of Avecia, except with Avecia's specific prior written authorisation.

4.8 Dstl will be responsible for all income tax liabilities and national insurance or similar contributions in respect of any fees payable hereunder and hereby agrees to indemnify Avecia in respect of any claims which may be made against Avecia by the relevant authorities in respect of income tax or national insurance or similar contributions and any costs, interest, penalties and gross up which may be found due in respect of such fees.

4.9 With the exception of Avecia's review of Dstl's activity records and supporting documentation which shall take place under Clause 4.6 above, any financial audit shall take place in the following manner:

4.9.1 Dstl shall make available for inspection and/or audit all records mutually agreed as necessary to substantiate its performance under this Agreement. Said records are subject to inspection and audit by appropriate audit agencies. Dstl agrees to retain any and all records associated with this Agreement for three (3) years following Avecia's final payment and until such time as any disputes arising therefrom are resolved. All audit disallowances under this Agreement shall be the responsibility of Dstl.

4.9.2 Dstl shall maintain accurate records of all costs incurred in the performance of this work. Dstl warrants that it conducts audits, which it believes meet the standards as required by OMB Circulars, federal cost principles, or cost accounting standards applicable to its performance as a recipient of US Government funds, that such audit has revealed no material findings and agrees to provide Avecia with audit report(s) attesting to the fact that Dstl's records covering the period of this Agreement have been audited in accordance with such requirements.

5. **Confidentiality**

5.1 Dstl shall at all times while this Agreement remains in force and thereafter keep confidential any and all commercial and technical information relating to any of the existing or planned products, business, research and/or development activities, customers and suppliers of Avecia and/or any subsidiary or associated company of Avecia and all other information relating to Avecia and/or any subsidiary or associated company of Avecia and/or to any of the activities or financial affairs of Avecia or any such subsidiary or associated company which it may acquire or to which he may have access during or by virtue of its participation in this Agreement and any information generated in its provision of the Services and performance of the GLP Potency Assays ("**the Confidential information**"). The Confidential Information shall be used by Dstl for the sole purpose of fulfilling its obligations under this Agreement and shall not at any time while this Agreement is in force or thereafter be disclosed by Dstl to any third party without the prior written consent of Avecia. PROVIDED THAT Dstl shall have the right to use, or have used, any information generated in its performance of the tasks allocated to it under this Agreement for any United Kingdom Government purpose free of any payments to Avecia, its subcontractors or the US Government.

5.2 The obligations of confidentiality contained in Clause 5.1 shall not apply to any Confidential Information which:

(a) is now or hereafter becomes available to the public otherwise than by a breach of this Agreement; or

(b) in the case of Confidential Information received by Dstl from Avecia Dstl can show that such Confidential Information was in its possession free from obligations of confidentiality prior to such receipt; or

(c) is received by Dstl from a third party who has not directly or indirectly received it from Avecia and who has not imposed any restrictions as to its disclosure.

6. **Intellectual Property**

6.1 In this Article 6, the following terms shall have the meanings attributed to them:

Background IP	Intellectual Property generated by Dstl: (1) prior to this Agreement, or (2) independently of this Agreement, and, in any case, necessary for the performance of the Prime Contract.
Development Contracts	The contracts between Dstl and Avecia dated 28 June 2000 (Dstl reference [***]) and 21 November 2003 (Dstl reference [***]) under which Avecia carried out process development and production work in relation to the Vaccine on behalf of Dstl, as amended.
Foreground IP	Intellectual Property generated by Dstl under this Agreement.
Intellectual Property	all know-how, inventions, discoveries, devices, data, utility models, patents, designs, copyrights, or other industrial or intellectual property and all applications therefor.

6.2 Dstl grants to Avecia a royalty-free, world-wide licence (with the right to grant sub-licences) to use Background IP to perform the Prime Contract, and any other contract awarded by NIAID which covers the same or substantially similar work to that covered by the Prime

Contract. PROVIDED THAT no rights are hereby granted to Avecia to use, or have used, Background IP for the manufacture and supply of doses of [***] which meet the regulatory deliverables as required for drug licensure in the USA, which rights Dstl is prepared to make available to Avecia on fair and reasonable commercial terms under a separate licence agreement to be agreed.

6.3 In addition to the licence referred to in Clause 6.2, with respect to any Foreground IP, including subject inventions in which Dstl retains title under FAR clause [***], Avecia shall have a nonexclusive, non-transferable, irrevocable, paid-up licence to practice or have

practiced for or on behalf of Avecia the subject invention throughout the world. Dstl shall ensure that it secures these rights for Avecia when placing sub-contracts under this Agreement.

6.4 In consideration for the licences set out in Clauses 6.2 and 6.3, Avecia shall supply to Dstl, a complete set of all data produced by Avecia and its subcontractors (other than Dstl) in the performance of the Prime Contract, and Dstl shall have the right to use, or have used, the said data, free of any payments to Avecia, its subcontractors or the US Government, for any United Kingdom Government purpose. Avecia shall ensure that it secures these rights for Dstl when placing sub-contracts under the Prime Contract. For the avoidance of doubt, if and to the extent that the said data includes Avecia's Background Intellectual Property (as defined in the Development Contracts), then nothing in this Clause 6.4 shall be construed so as to vary Avecia's rights in respect of such Background Intellectual Property set out in clause 7.1 of the Development Contracts.

7. **Termination**

7.1 Avecia may terminate this Agreement immediately by notice in writing at any time.

7.2 Upon termination of this Agreement, Dstl, if requested by Avecia, shall immediately deliver up to Avecia all copies of and other embodiments of any work in progress pursuant to the Services or the GLP Potency Assays and any correspondence, documents, specifications, and any other property belonging to Avecia or NIAID which may be in its possession.

7.3 In the event of termination for any reason, the provisions of FAR Clause [***], incorporated by reference under Clause 12.1, shall apply.

8. **Key Personnel**

The following individuals ("**Key Personnel**") are considered to be essential o the work being performed hereunder:

Name	Title
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]
[***]	[***]

None of the Key Personnel shall be replaced in his/her role for the duration of this contract unless otherwise agreed between the parties. Dstl shall ensure that any

replacement for a role possesses similar qualifications and experience to the Key Personnel it proposes to replace.

9. **Publicity And Publication**

9.1 During the term of this Agreement neither party shall use the other party's name in any advertising or promotional material unless the other party gives its prior written approval. The party wishing to issue such advertising or promotional material shall provide a copy thereof to the other for review.

9.2 Without prejudice to any other provision in this Agreement neither party shall publish any information obtained under this Agreement including the results of work conducted without the prior written permission of the other party. Such permission shall not be unreasonably withheld or delayed. Such permission shall be given where security considerations allow and subject to appropriate protection of the party's Intellectual Property.

9.3 Any request for publication shall be submitted in writing.

9.4 In the event of any publication the provisions of HHSAR [***] shall apply.

10. **Compliance-with-Rules**

Whilst providing the Services and carrying out the GLP Potency Assays, Dstl shall observe and comply with all applicable local legislation and any relevant regulations and codes of practice issued thereunder and with all other applicable legal or regulatory requirements and all policies, procedures, regulations and rules of Avecia or applicable at any premises of Avecia to which Dstl may have access whilst providing the Services or carrying out the GLP Potency Assays hereunder.

11. **Liability and Indemnity**

11.1 Subject to Clause 11.2 below, Avecia shall defend, indemnify and hold Dstl and its directors, officers, employees and affiliates ("**Dstl indemnified Parties**") harmless from and against (1) any damage or loss suffered by the Dstl Indemnified Parties and (2) all third party claims, liabilities, judgements and other costs (including, but not limited to, reasonable attorney fees and expenses incurred in investigating, defending and settling claims and in enforcing Avecia's obligations under this Clause 11.1) (collectively "**Avecia Liabilities**") of any kind resulting from the use, sale, distribution, advertising or marketing of the Vaccine by or on behalf of Avecia.

11.2 Avecia's obligations to Dstl Indemnified Parties under Clause 11.1 shall not extend to any Avecia Liabilities to the extent that such Avecia Liabilities arise as a result of the negligence, wilful misconduct or breach of this Agreement by the Dstl Indemnified Parties.

11.3 Dstl shall defend, indemnify and hold Avecia, and its directors, officers, employees and affiliates ("**Avecia Indemnified Parties**") harmless from and

against (1) any damage or loss suffered by the Avecia Indemnified Parties and (2) all third party claims, liabilities, judgements and other costs (including, but not limited to, reasonable attorney fees and expenses incurred in investigating, defending and settling claims and in enforcing Dstl's obligations under this Clause 11.3) of any kind resulting from the negligence, wilful misconduct or breach of this Agreement by Dstl (collectively "**Dstl Liabilities**"). Save to the extent that such Dstl Liabilities are due to the wilful misconduct of Dstl, Dstl's liability under this Clause 11.3 to Avecia shall be limited to [***] per incident.

11.4 Dstl's obligations to Avecia Indemnified Parties under Clause 11.3 shall not extend to any Dstl Liabilities to the extent that such Dstl Liabilities arise as a result of the negligence, wilful misconduct or breach of this Agreement by the Avecia Indemnified Parties or their subcontractors.

12. **FAR and HHSAR Flowdown Provisions**

The FAR and HHSAR clauses contained in the Prime Contract and listed in Schedule 4 are incorporated by reference into this Agreement.

13. **Assignment and Subcontracting**

13.1 Neither party to the Contract shall give, bargain, sell, assign, or otherwise dispose of the Contract or any part thereof, or the benefit or advantage of the Contract or any part thereof, without the previous consent in writing of the other party, such consent not to be unreasonably withheld or delayed.

13.2 Dstl shall not be entitled to subcontract any part of this Agreement.

14. **Entire Agreement and Scope Changes**

14.1 This Agreement constitutes the entire agreement of the parties in relation to the provision of the Services and, save as set out in Clause 14.2 below, shall not be modified or varied except as agreed in writing by Avecia and Dstl.

14.2 Avecia shall be entitled to make changes to the scope of the Services or the GLP Assays by giving not less than 60 days' notice in writing to Dstl. In the case of a reduction in the Services or number of GLP Assays, Dstl shall carry out the reduced Services or number of GLP Assays as directed by Avecia in such written notice and the fees payable under Clause 4 shall be adjusted accordingly. In the case of an increase in the Services or number of GLP Assays, Dstl shall provide a written proposal of the increased cost therefor and shall carry out such increased Services of GLP Assays on formal written amendment to this Agreement by Avecia.

15. **Force Majeure**

15.1 Either party shall not be liable for any failure to perform or any delay in performing its obligations if the failure or delay is due directly or indirectly to any

cause beyond the reasonable control of that party, which shall include but is not limited to the following:

15.1.1 any Act of God, fire, flood, explosion, accident, civil disturbance, emergency or period of armed conflict;

15.1.2 any major plant or equipment failure which results in closure of a facility;

15.1.3 the postponement of any trial or test as a result of adverse weather conditions or conditions being otherwise unsafe; and

15.1.4 in the case of the Contractor, the withdrawal of facilities or resources due to specific direction from a higher UK Government authority.

15.2 In the event of a delay arising from such circumstances, the affected party will provide full details to the other party and shall take all reasonable steps to mitigate the effect of the delay. Performance of the party's obligations under this contract shall be suspended for such time as the delay continues.

16. **Law, Disputes and Jurisdiction**

16.1 This Agreement is governed by and shall be construed and interpreted in accordance with the laws of England and Wales. Any proceedings between the parties shall be conducted in the English language.

16.2 In the event of any dispute, difference or disagreement concerning this Agreement, the parties shall seek to resolve the matter within 30 days by referring it to the Commercial Director, Vaccines Business, Avecia Biotechnology, the Head of Commercial Services, DSTL and, if Avecia considers it necessary, the Contracting Officer under the Prime Contract.

16.3 The parties agree to refer any matter or dispute which is not able to be resolved pursuant to Clause 16.2 to settlement in good faith by Alternative Dispute Resolution ("ADR").

16.4 In the event that a dispute arises between NIAID and Avecia which relates to the Services but which is not also the subject of a dispute between Avecia and Dstl, Dstl shall provide reasonable assistance to Avecia in order for Avecia to pursue the matter in accordance to FAR Clause [***], incorporated into the Prime Contract by reference.

Signed for and on behalf **AVECIA LIMITED** by

Signature: /s/ Kevin M. Price

Name: Kevin M. Price

Position: Business Manager

Date: 11 Aug 05

Signed for and on behalf of **THE SECRETARY OF STATE FOR DEFENCE, acting through the Defence Science and Technology Laboratory** by

Signature: [***]

Name: [***]

Position: [***]

Date: [***]

[Schedule 1 - The Services]

[***]

[***]

[***]

[Schedule 2 - The GLP Potency Assays]

[***]

[***]

[***]

[Schedule 3 - The Pricing Schedule]

[***]

[***]

Schedule 4 - [***]

[***]

Schedule 4 - [***]

[***]

Schedule 4 - [***]

[***]

[Schedule 5 - Quality Agreement]

[***]

PRIVATE BETWEEN THE PARTIES

PharmAthene, Inc.
Confidential Materials Omitted and Filed Separately with the
Securities and Exchange Commission
Confidential Portions denoted by [***]

MANUFACTURING LICENCE AGREEMENT

Between

THE SECRETARY OF STATE FOR DEFENCE

as represented by

THE DEFENCE SCIENCE AND TECHNOLOGY LABORATORY (Dstl)

And

AVECIA LIMITED

in respect of

[***]
VACCINE

TECHNOLOGY

PRIVATE BETWEEN THE PARTIES

THIS AGREEMENT is made the 20th June 2006
BETWEEN

THE SECRETARY OF STATE FOR DEFENCE acting through the Defence Science and Technology Laboratory of [***]

AND

AVECIA LIMITED a company registered in England under the number 3730853 and having its registered office at Hexagon Tower, Blackley, Manchester M9 8ZS, acting through its Avecia Biotechnology business at PO Box 2, Belasis Avenue, Billingham TS23 1YN (hereinafter referred to as the **"Licensee")** of the second part

hereinafter referred to collectively as the **"Parties"** or in the singular as a **"Party".**

WHEREAS:

(A) [***]

(B) Under contracts between the Licensor and the Licensee dated 28 June 2000 (Licensor reference [***]) and 21 November 2003 (Licensor reference [***]) (hereinafter referred to as the **"Development Contracts"),** the Licensor has made the Background IP available to the Licensee to enable the Licensee to develop a production process for the Vaccine and to manufacture batches of the Vaccine for use by the Licensor in clinical trials.

(C) The Licensor and the Licensee have entered a further contract dated 10th May 2006 (Licensor reference [***]) under which the Licensor is intended to carry out work in relation to validation of the manufacturing process for production of the Vaccine

PRIVATE BETWEEN THE PARTIES

(hereinafter referred to as the **"Process Validation Contract").** The United States and Canadian Governments co- funded, with the Licensor, the Process Validation Contract. As a consequence of carrying out work under the Process Validation Contract, the Licensee may develop further intellectual property which (i) relates solely to antigens and Vaccine or any process specific modification to antigens and Vaccine, or (ii) relates to the process for manufacture of the antigens and Vaccine ("Process Validation Foreground IP"). For the avoidance of doubt, Process Validation Foreground IP does not include intellectual property developed under the Process Validation Contract which relates to any process suitable for manufacturing products generally. By virtue of the conditions of the Process Validation Contract, the Licensor is the owner of certain Process Validation Foreground IP.

(D) By virtue of the conditions of the Development Contracts, the Licensor is also the proprietor of certain foreground intellectual property (hereinafter referred to as the "Foreground IP") relating to the Vaccine and generated by the Licensee during the Licensee's performance of the Development Contracts.

(E) The Licensor has permitted the Licensee to use the Background IP and the Foreground IP, including the patents and patent applications listed in the Schedule to this Agreement, and any equivalents thereto, and any associated know-how and any of the Process Validation Foreground IP owned by the Authority under the Process Validation Contract in the event of any such intellectual property arising (hereinafter together referred to as the "Vaccine IP") to perform for the National Institute of Allergy and Infectious Diseases (hereinafter referred to as "NIAID"), a part of the Government of the United States of America (hereinafter referred to as the "US Government"), a contract having reference number [***] for *inter alia* the development of a prototype recombinant protective antigen plague vaccine and the production of trials doses thereof (hereinafter referred to as the "NIAID Contract").

(F) The Licensor has also undertaken that if, subsequent to the NIAID Contract, the Licensee is awarded contracts by the US Government for the further development, manufacture and supply of [***], the Licensor will grant the Licensee a licence to use the Vaccine IP on fair and reasonable commercial terms in the performance of said contracts. Furthermore, the Licensee desires to pursue licensure of the Vaccine in other territories in addition to the United States of America and therefore the Licensee desires a licence to use the Vaccine IP to fulfil manufacturing and/or supply contracts for customers in addition to the US Government.

(G) The Licensor is willing to permit the Licensee to use the Vaccine IP for the purposes set out in Recital F above subject to certain terms and conditions.

(H) The Licensor has undertaken to the United States and Canadian Governments to collect a levy in respect of the Process Validation Foreground IP whose generation was funded under the Process Validation Contract.

NOW IT IS HEREBY AGREED BETWEEN THE PARTIES AS FOLLOWS:-

1. DEFINITIONS AND INTERPRETATION

1.1 For the purposes of this Agreement, unless the context clearly or necessarily indicates otherwise, the following words and phrases shall have the meanings set forth below:

"Agreement" shall mean this manufacturing licence agreement.

[***]

"Calendar Quarter" shall mean any period of three months ending on 31 March or 30 June or 30 September or 31 December in any year.

"Commencement Date" shall mean the day and year first above written.

"Net Sales Price" shall mean the actual sale price invoiced by the Licensee or, where applicable, a Partner of the Licensee less any separate charges identified for packaging, transportation, insurance and sales taxes.

"Supply Contract" shall mean a contract or contracts for the production and/or supply of Plague Vaccine Doses.

"Partner" shall mean any third party organisation which Avecia elects to involve in the performance of a Supply Contract.

"Third Party" shall mean any person other than the Governments of the United Kingdom, the United States of America and Canada.

1.2 The singular shall include the plural and vice versa, and the masculine shall include the feminine or the neuter gender and vice versa.

1.3 Unless the context otherwise indicates, references to Articles and Clauses and Schedule, are to articles and clauses and the Schedule of this Agreement.

1.4 Headings to Articles in this Agreement are included for ease of reference only

and shall not have any effect on the construction or the interpretation of this Agreement.

1.5 References in this Agreement to any statute or statutory provision shall include any statute or statutory provision which amends, extends, consolidates or replaces the same and shall include any orders, regulations, instruments or other subordinate legislation made under the relevant statute.

2. GRANT OF RIGHTS BY THE LICENSOR

2.1 In consideration for the payments to be made by the Licensee to the Licensor under the provisions of Article 3 below, the Licensor, warranting that he has the right to do so, hereby grants and the Licensee hereby accepts a non-exclusive licence to use the Vaccine IP to further develop, manufacture, use, keep, import, export, supply or offer to supply, or, subject to Clause 2.6 and Article 3 below, have a Partner manufacture, use, keep, import, export, supply or offer to supply, [***] in performance of Supply Contracts.

2.2 Without prejudice to the provisions of Clause 2.3 and 2.4 below the Licensor undertakes that it shall not for the shorter of a period of 3 years from the date of this Agreement or whilst this licence remains in effect grant a licence relating to the Vaccine IP to any third party providing that the Licensee is diligent and makes reasonable progress, as determined by the Licensor, in obtaining licensure approval of the relevant US Government regulatory authorities or any authorities acting on behalf of the US Government to supply and use the Vaccine [***] throughout the US and in particular for human use.

2.3 For the avoidance of any doubt, *the* Licensor and any other Department or Agency of the UK Government shall retain the right at any time to use, or authorise others to use, the Vaccine IP for any UK Government purpose or otherwise to the extent customary pursuant to standard UK MOD contracting procedures, and to dispose of products made in consequence of such use but no longer required; and nothing in this Agreement shall be construed as in any way limiting or derogating from such retained rights, nor from any rights of the Crown arising under any other agreement or contract or provision of law.

2.4 The restrictions imposed by Clause 2.2 above shall not prevent or restrict the use of any UK Government patent by or on behalf of the US Government where such use is under the "Agreement between the Government of the United Kingdom of Great Britain and Northern Ireland and the Government of the United States of America to facilitate the interchange of patents and technical information for defence purposes" done in London on 19th January 1953. Furthermore the restrictions imposed by Clause 2.2 above shall not be deemed to prevent or hinder the UK Government from authorising any foreign Government to use and have used the Vaccine IP where such use is in

furtherance of any international co-operative arrangement including but not limited to Memoranda of Understandings involving two or more of the Governments of the United Kingdom the United States of America and Canada.

2.5 Save as permitted under Clause 2.6 below, the Licence granted under this Agreement is personal to the Licensee and as such shall not be assigned, sub-licensed, mortgaged or in any way dealt with by the Licensee without the prior written consent of the Licensor, which consent shall not be unreasonably withheld, provided that the Licensee may assign the Licence and this Agreement without consent in connection with a genuine business re-organisation or to any corporation, association or other business entity which directly or indirectly controls, is controlled by or is under common control with the Licensee. For the avoidance of doubt, consent shall be deemed to be reasonably withheld where the Chief Executive of Dstl receives notice from an appropriate authority at the Ministry of Defence or other UK Government Department that assignment to such person would damage the essential public or national interest. Any assignment, sub-licensing or mortgaging of this Agreement by the Licensee otherwise than as permitted by this Clause 2.5 without the prior written consent of the Licensor shall immediately invalidate this Agreement and the Licence granted hereunder.

2.6 Notwithstanding the provisions of Clause 2.5 above, the Licensee shall be entitled to employ Partners to assist the Licensee in its performance of Supply Contracts, subject to the provisions of Article 3 below.

2.7 Save as expressly stated under this Article 2 the Licensee is not authorised to grant any rights to use the Vaccine IP to any third party.

2.8 The Licensee may request within 6 months of the expiry of the period granted under Clause 2.2 above that such period should be extended. The Licensee in support of an extension will provide the Licensor with clear information that is sufficient for the Licensor to assess the progress made to date in obtaining licensure of the [***] and such further work that might be needed to achieve licensure and the timeframes within which it is reasonable that the further work be completed and licensure obtained. Provided the Licensor is content that the Licensee has been diligent and has made sufficient progress in obtaining licensure then the Licensor may at his sole discretion extend the period for such additional time as he deems reasonable to achieve licensure. If licensure is achieved whether within the original period under Clause 2.2 above or within an extended period as may be granted under this Clause 2.8 then the Licensor will, subject to any legal constraints and the Licensee's continuing conformance to this Agreement, further extend the period indefinitely but only in respect of the US or such other territories that licensure is achieved by the Licensee.

2.9 Should the Licensor wish to abandon a patent, patent application or equivalent forming part of the Vaccine IP, it shall offer it to the Licensee, which shall be entitled to accept assignment the said patent, patent application or equivalent at the Licensee's expense but otherwise without charge and, if such assignment is effected, the Licensee shall be responsible for all further expenditure thereon. The Licensor shall retain a free non-exclusive licence for the purposes set out in Clauses 2.3 and 2.4 above.

3. LICENCE PAYMENTS

3.1 In consideration for the grant of rights by the Licensor in Article 2 above, the Licensee shall pay to the Licensor a royalty on each and every Plague Vaccine Dose, equal to the greater of:

3.1.1 [***] of the Net Sales Price of the Plague Vaccine Dose;

3.1.2 [***] of the Net Sales Price of any Plague Vaccine Dose where such sale is to a Third Party and when Process Validation Foreground IP has been used in the process for production of such Plague Vaccine Dose; or

3.1.3 [***]

Notwithstanding the foregoing, no royalties shall be payable in respect of any samples of [***] which are provided by Avecia for clinical, product development, marketing development or bona fide study purposes.

3.2 Payment of the royalty as set out in Clause 3.1 discharges all obligations of the Licensee to pay any levies in respect of the support given by the Licensor and the US and Canadian Governments pursuant to the Process Validation Contract and, for the avoidance of doubt, upon execution of this Agreement by the Licensor and the Licensee, clause 6.10 of the Process Validation Contract shall no longer apply.

3.3 If the UK Ministry of Defence, US Department of Defence or the Department of Defence of the Government of Canada claims that [***] should be supplied free of royalties in respect of patents under existing UK or international arrangements and seeks a waiver of that part of the royalty attributable to patents forming part of the Vaccine IP, the Licensee shall inform the Licensor. If it is agreed that such supply should be free of patent royalties an appropriately reduced royalty will be settled which represents the contribution of the patents to the Vaccine IP concerned.

3.4 The royalty in respect of a [***] shall become payable by the Licensee under this Agreement when the cost of the [***] is

invoiced. Where the cost of a [***] is payable in two or more installments, the invoice for each installment will be considered separately for the payment of royalties, subject always to the total royalty payable being in respect of the [***] not exceeding the maximum royalty set out in Clause 3.1.3 above.

3.5 The payments called for in Clause 3.1 above will fall due at the end of each Calendar Quarter and will be payable within sixty days of the due date, or within thirty (30) days of receipt of the Licensors invoice for same, whichever is the later, in accordance with the instructions contained in Clauses 3.5 and 3.6 below.

3.6 All payments due to the Licensor shall be paid in accordance with the instructions issued with the relevant invoice, and all statements, payments and correspondence relating to payments hereunder shall quote the Licensor's reference [***]**.**

3.7 All payments due to the Licensor shall be paid in pounds Sterling plus, if applicable, VAT at the UK rate prevailing at the time of payment. Where a payment due is in a currency other than pounds Sterling, the rate of exchange to be applied shall be the rate of exchange applied by the Bank of England on the date of the relevant invoice for [***] supplied by the Licensee.

3.8 Without prejudice to the provisions of Clause 12.2, if the Licensee fails to make any payment to the Licensor within the time specified in this Agreement, then the Licensee shall be liable to pay interest on the outstanding payment calculated at [***] per annum with effect from the date on which the payment originally fell due, where [***].

3.9 Within thirty (30) days of the end of each Calendar Quarter, the Licensee shall submit or cause to be submitted to the Licensor a statement in writing [including, where appropriate, a nil return] recording the calculation of royalties payable under this Agreement in respect of the said Calendar Quarter, and showing, in particular:

3.9.1 the quantity of [***] which has been supplied by the Licensee and its Partners during the Calendar Quarter;

3.9.2 the Net Invoice Price of each [***] sold by the Licensee and its Partners during the Calendar Quarter;

3.9.3 the total amount of royalties due and payable on the [***] in accordance with the provisions of Clause 3.1 above.

3.10 Subject to the provisions of Clause 3.11 below, the Licensee shall keep at its usual place of business proper records and books of account showing the quantities and Net Sales Price of all [***] supplied by the

Licensee and its Partners under this Agreement and such records and books shall be kept separate from any records and books not relating solely to the [***]. Such records and books of account shall contain such true entries (complete in every particular) as may be necessary or proper for enabling the amount of the payments due to the Licensor under this Agreement to be ascertained. At the reasonable request of the Licensor, the Licensee shall, and shall ensure that its Partners shall, make the appropriate records and books of account available to inspection at all times during office hours by the Licensor or his duly authorised agent or representative who shall be entitled to take copies of or extracts from the same. In addition to the foregoing, the Licensee shall also provide the Licensor or its duly authorised agent or representative with any other information which may be necessary or appropriate with a view to determining or verifying the royalties due under this Agreement. In the event that such inspection or audit should reveal an underreporting in the royalties payable under this Agreement, the Licensee shall immediately make up any shortfall and, in the event that the said shortfall is more that [***], shall reimburse the Licensor in respect of any professional charges incurred for such audit or inspection.

3.11 The books of account referred to in Clause 3.10 above shall be kept for a minimum of four years after any relevant transaction and thereafter in accordance with applicable commercial law.

3.12 In accordance with the provisions of Article 10 (Consequences of Termination), the provisions of this Article 3 shall continue to apply notwithstanding termination or expiry of this Agreement until all royalties properly owed by the Licensee to the Licensor in accordance with this Article 3 have been paid to the Licensor.

3.13 In the event that the Licensor grants a licence to a third party for the manufacture and supply of [***] on more favourable terms than those herein, the Licensor shall offer to amend the terms of this licence to be no less favourable than those granted to the third party.

3.14 In the event that any of the patents, patent applications or equivalents forming part of the Vaccine IP expire or are abandoned or revoked, or are reduced in scope such that operation within the scope of a patent claim comprising the Vaccine IP is no longer necessary, but it remains necessary for the Licensee to use some or all of the know-how making up the remainder of the Vaccine IP in order to fulfill a Supply Contract, then Avecia shall have the right to request a meeting of the parties at which the parties shall negotiate in good faith with a view to agreeing upon an appropriate reduction to the royalty payable under this Agreement.

4. OWNERSHIP, AND PROTECTION, OF INTELLECTUAL PROPERTY

4.1 Both of the Parties acknowledge that nothing contained in this Agreement

shall affect the ownership of any intellectual property existing at the Commencement Date and which is owned by either of the Parties.

4.2 Both the Parties acknowledge that nothing contained in this Agreement shall effect the arrangements for the protection of information which are contained in the Development Contracts.

4.3 The Licensee shall promptly and fully notify the Licensor in writing of:

4.3.1 any actual, threatened or suspected infringement by any third party of the Vaccine IP;

4.3.2 any proceedings commenced or threatened against the Licensee in which it is alleged that the rights licensed by the Licensor are invalid and/or infringe third party rights;

which come to the notice of the Licensee during the term of this Agreement.

4.4 In the event that the Licensor decides (in the circumstances referred to in Clause 4.3.1 above) to institute any proceedings or (in the circumstances referred to in Clause 4.3.2 above) to defend any proceedings instituted against the Licensee, the Licensee shall render to the Licensor at the Licensor's expense such reasonable assistance in connection with such proceedings as the Licensor may request.

4.5 In the event that during the term of this Agreement when the provisions of Clause 2.2 above shall apply a third party is found to be infringing any of the patents which form part of the Vaccine IP, then the Licensor and the Licensee agree to review the effect that the infringement may have on the Licensee's business and consider the option of the Licensee negotiating a sub-licence with the infringing party on fair and reasonable terms as a way to resolve the infringement issue.

4.6 Nothing herein shall oblige the Licensor to institute proceedings in the circumstances referred to in Clause 4.3.1 above, or to defend any proceedings in the circumstances referred to in Clause 4.3.2 above. In the event that the Licensor decides not to institute or defend any proceedings in the circumstances referred to in Clauses 4.3.1 or 4.3.2 above, the Licensor will allow the Licensee, if necessary in the Licensor's name, to institute or defend such proceedings at its own expense with the Licensor's permission, in which event:

4.6.1 the Licensee shall have sole control of the proceedings and shall take or conduct such action in its discretion in any way that it deems necessary or appropriate; and

4.6.2 the Licensor shall render to the Licensee at the Licensee's expense

such reasonable assistance (including performing such acts and executing such documents) in connection with such proceedings, as the Licensee may request; and

4.6.3 the Licensee shall be responsible for all costs and expenses arising therefrom and shall be solely responsible for any damages payable to the third party and for satisfying any award or judgment in favour of any third party and shall be solely entitled to the full benefit of all remedies awarded including but not limited to all damages and other sums which may be paid or awarded as a result thereof.

4.7 Provided that the Parties are not engaged in negotiating a sub-licence with an infringing third party under Clause 4.5 above, in the event that at any time during the term of this Agreement the Licensee is able to establish to the reasonable satisfaction of the Licensor that a third party is infringing

any of the patents which form part of the Vaccine IP in any country or countries of the world where such patents have force, and that such infringement can be shown to be having a significant impact upon sales of the Licensee's own [***] (for example, such infringement has an impact on sales which the Licence could have made but for such infringement) in such countries, and the Licensor is unable or unwilling within a reasonable period to take such action as may be necessary to settle or prevent such infringement, then the royalty payable under this Agreement by the Licensee in respect of such patents in such countries shall cease to be payable until the date on which such infringement is settled or prevented.

4.8 The cessation of royalties under Clause 4.7 above shall apply in respect of sales of [***] by the Licensee in the relevant country or countries from the date on which the Licensee is able to establish the infringement in accordance with Clause 4.7 above.

5. WARRANTY AND LIABILITY

5.1 Nothing contained in this Agreement or in any licence granted hereunder shall be construed as or deemed to be:-

5.1.1 a representation or warranty that any patents contained in the Vaccine IP are valid, or that any use of the Vaccine IP will not infringe any intellectual property rights owned by a third party anywhere in the world; or

5.12 an indemnity against costs, damages, royalties, liabilities, expenses or other payments arising out of any proceedings based on infringement brought against the Licensee or customers, agents or distributors of the Licensee;

and any such representation, warranty or indemnity is hereby expressly excluded.

5.2 The Licensee shall at all times indemnify and keep indemnified the Licensor against all costs, claims, damages or expenses incurred by the Licensor or for which the Licensor may become liable with respect to any product liability claim relating to any products supplied or put into use by the Licensee pursuant to this Agreement. The Licensee shall maintain sufficient product liability insurance coverage to cover its commitments under this Agreement.

5.3 The Licensor shall not be liable for any loss or damage howsoever caused which results from the Licensee's use of the Vaccine IP in exercise of the Licensee's rights under this Agreement and the Licensor gives no warranty that the Vaccine IP is suitable for any purpose.

6. TAXATION

6.1 If any stamp taxes, registration taxes, turnover taxes, or other taxes, duties or governmental charges are levied on this Agreement by reason of its execution or performance, it shall be the responsibility of the Licensee to pay all such taxes or charges when due.

6.2 The Licensee agrees to release and indemnify the Licensor from and against any liability of whatever nature arising out of the Licensee's failure duly and timely to pay and discharge any of the above-mentioned taxes.

7. EXPORT CONTROL

7.1 The Licensee shall be responsible for complying with the applicable Export of Goods (Control) Order.

7.2 This Agreement does not grant authority for the Licensee to export the Vaccine IP, or any part thereof, or any products manufactured using the Vaccine IP from the United Kingdom and application for any necessary export licence must be made to the Export Licensing Unit of the Department of Trade and Industry.

8. COMING INTO EFFECT AND DURATION

8.1 This Agreement shall come into effect on the Commencement Date and, unless terminated in accordance with the provisions of Article 9, shall remain in effect indefinitely.

9. TERMINATION

9.1 The Licensor shall have the right to terminate this Agreement at any time forthwith by notice in writing to the Licensee on the happening of any one of the following events:-

9.1.1 if the Licensee is in breach of any of its obligations under this Agreement, and fails to remedy such breach or fails to take steps to substantially remedy the breach within thirty (30) days of a written notice issued to it by the Licensor to do so; or

9.1.2 if the Licensee shall have a Receiver or Liquidator appointed to the whole or any part of its assets or if an Order shall *be* made or any resolution passed for winding up the Licensee unless such Order or resolution is part of a scheme for amalgamation or reconstruction of the Licensee; or

9.1.3 if the Licensee assigns, sub-licences, mortgages, or in any other way deals with the licence granted under this Agreement without the prior written consent of the Licensor; or

9.1.4 if a person, whether alone or in conjunction with any Connected Person (as defined in section 839 of the Taxes Act 1998) acquires control of the Licensee and the Chief Executive of Dstl receives notice from an appropriate authority at the Ministry of Defence or other UK Government Department that such an acquisition would damage the essential public or national interest, where control of the Licensee means the power of a person to secure either by means of the holding of share or possession of voting power in or in relation to the Licensee or by virtue of any powers conferred by articles of association or other document regulating the Licensee that its affairs are conducted in accordance with the wishes of that person; or

9.1.5 in any other event expressly identified in this Agreement as giving the Licensor a right to terminate.

9.2 The Licensee shall have the right to terminate this Agreement at any time on giving three (3) months prior written notice to the Licensor.

9.3 If the Licensee has not secured a Supply Contract by 31 December 2008 or, if the Parties agree, by 31 December in any subsequent calendar year, the Licensor and the Licensee shall review the situation together. As a result of such review and subject to the following provisions of this Clause 9.3, the Parties may agree to extend the period for securing a Supply Contract for a further calendar year. A period of 90 days shall be permitted for such a review. If, after such 90 day period, it appears to the Licensor that there is no reasonable prospect of a Supply Contract being secured by the Licensee

within a reasonable time, the Licensor may terminate this Agreement by giving three (3) months written notice to the Licensee.

10. CONSEQUENCES OF TERMINATION

10.1 Upon the termination of this Agreement under the provisions of Article 9 above, all rights and licences granted in favour of the Licensee hereunder shall cease, except and to the extent expressly provided otherwise under the terms of this Agreement.

10.2 Immediately upon the termination of this Agreement all licence payments accrued to date under Clause 3.1 above shall become payable and all other obligations shall become due. In the event of termination of this Agreement under the provisions of Article 9, the Licensee shall have the right from the date of termination to dispose of all stocks of [***] in its possession and to complete any outstanding Supply Contracts, subject in each case to the payment of royalties as payable under Clause 3.1 hereof.

10.3 The expiry or termination of this Agreement shall be without prejudice to the provisions of Article 5 (Warranty and Liability) and this Article 10 (Consequences of Termination), to any other express obligations in this Agreement of a continuing nature, and to any rights of either Party which may have accrued up to the date of termination.

11. VALIDITY OF THE AGREEMENT

11.1 In the event that any provisions of this Agreement shall for any reason be declared or rendered invalid, illegal or unenforceable in any respect, such provisions shall, to the extent of such invalidity, illegality or unenforceability, be deemed severable and shall not affect the validity, legality or enforceability of the remainder of this Agreement, which shall continue in full force and effect, save that if the nature of the invalidity, illegality or unenforceability is such that it destroys the business efficacy of this Agreement, the Parties shall confer to determine whether the Agreement shall be terminated or whether such severed provisions shall be replaced with enforceable provisions to the satisfaction of both of the Parties.

12. MISCELLANEOUS PROVISIONS

12.1 Each Party shall at any time on the request of the other do and execute all such acts, deeds, documents and things as may reasonably be required by the other to perfect and complete the grant of rights and licences conferred by this Agreement on the other, or to record any change in the status of such rights, including in particular entry into forms of licence or other instruments

confirmatory of such rights for registration with appropriate authorities in any country.

12.2 No relaxation, forbearance, delay or indulgence by either Party in enforcing any of the terms and conditions of this Agreement or the granting of time by either Party to the other shall prejudice, affect or restrict the rights and powers of that Party under this Agreement nor shall any waiver by either Party of any breach of this Agreement operate as a waiver of or in relation to any subsequent or any continuing breach of this Agreement.

12.3 No variation of this Agreement shall be effective unless it is in writing signed by a duly authorised officer of each Party.

12.4 Nothing in this Agreement shall be deemed to constitute a partnership between the Parties nor shall either Party be taken to have any authority to bind or commit the other or be taken to have authority to act as the agent of the other or in any other capacity other than as expressly authorised in this Agreement.

12.5 Any notice or communication authorised or required to be given hereunder or for the purpose hereof shall be deemed to be duly given if left or sent by post or if sent by cable, facsimile or telex so addressed if confirmed by post in like manner to:-

12.5.1 the Licensor at:

[***]
[***]
[***]
[***]
[***]
[***]

[***]

[***]

12.5.2 the Licensee at:

Business Manager, Vaccines
Avecia Limited
PO Box 2
Belasis Avenue
Billingham TS23 1YN

Facsimile: 01642 522622

Copied to:

The Company Secretary
Avecia Limited
Legal Affairs Department
PO Box 42
Hexagon Tower
Blackley
Manchester M9 8ZS

Facsimile: 0161 721 1886

Any notice so given by post shall be deemed to be served at the expiration of seven (7) days after it has been posted and in proving such service it shall be sufficient to prove that the envelope containing the notice was properly addressed and posted.

12.6 A person who is not a party to this Agreement shall have no right under the Contracts (Rights of Third Parties) Act 1999 to enforce any term of this Agreement. This clause does not affect any right or remedy of any person which exists or is available otherwise than pursuant to that Act.

13. LAW AND JURISDICTION

13.1 This Agreement shall be considered as a contract made in England and subject to English Law.

13.2 Subject to Article 14 and without prejudice to the dispute resolution process set out in that article, each Party hereby irrevocably submits and agrees to the exclusive jurisdiction of the Courts of England to resolve, and the laws of England to govern, any actions, proceedings, controversy or claim of whatever nature arising out of or relating to this Agreement or breach thereof.

13.3 Other jurisdictions may apply solely for the purpose of giving effect to this Article and for the enforcement of any judgement, order or award given under English jurisdiction.

14. DISPUTE RESOLUTION

14.1 Without prejudice to the operation of the dispute resolution or arbitration provisions, if any, governing disputes, differences or questions arising out of the Development Contracts and where necessary the examination of this Agreement pursuant to such dispute resolution or arbitration provisions:

14.1.1 the parties will attempt in good faith to resolve any dispute or claim arising out of or relating to this Agreement 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 (ADR) procedure on which the parties may agree;

14.1.2 in the event that the dispute or claim is not resolved by negotiation, or where the parties have agreed to use an ADR procedure, by the use of such procedure, the dispute shall be referred to arbitration;

14.1.3 the party initiating the arbitration shall give a written Notice of Arbitration to the other party, which Notice of Arbitration shall specifically state:

(a) that the dispute is referred to arbitration; and

(b) the particulars of this Agreement out of or in relation to which the dispute arises;

14.1.4 unless otherwise agreed in writing by *the* parties, the arbitration and this Article 14 shall be governed by the provisions of the Arbitration Act 1996 or any statutory modification or re-enactment thereof;

14.1.5 it is agreed between the Parties that for the purposes of the arbitration, the arbitrator shall have the power to make provisional awards as provided for in Section 39 of the Arbitration Act 1996; and

14.1.6 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 relating to the arbitration or otherwise; and no report relating to anything said, done or produced in or in relation to the arbitration process may be made beyond the tribunal, the Parties, their legal representatives and any person necessary to the conduct of the proceedings, without the concurrence of all the Parties to the arbitration.

15. COMPLETE AGREEMENT

15.1 This Agreement consisting of fifteen (15) Articles represents the entire agreement between the Parties on the subject of the use by the Licensee of the Vaccine IP for the purposes set out herein and supersedes all prior proposals, oral or written, between the Parties on this subject.

IN WITNESS WHEREOF the Parties have entered into this Agreement in two (2) counterparts, each of which is equally valid, the day and year first above written.

SIGNED on behalf of THE SECRETARY OF STATE FOR DEFENCE by: [***]

[***]
[***]
[***]
[***]

SIGNED for and on behalf of AVECIA LIMITED by: /s/ Kevin Cox

KEVIN COX, Director
Authorised to sign on behalf of Avecia Limited

Approved as to legal form by [***]

[***]

[***]

PRIVATE BETWEEN THE PARTIES

PharmAthene, Inc.
Confidential Materials Omitted and Filed Separately with the
Securities and Exchange Commission
Confidential Portions denoted by [***]

MANUFACTURING AND MARKETING LICENCE AGREEMENT

between

THE SECRETARY OF STATE FOR DEFENCE

as represented by

THE DEFENCE SCIENCE AND TECHNOLOGY LABORATORY (Dstl)

and

AVECIA LIMITED

in respect of

[***]

PRIVATE BETWEEN THE PARTIES

THIS AGREEMENT is made the 4th day of December 2006

BETWEEN

THE SECRETARY OF STATE FOR DEFENCE acting through the Defence Science and Technology Laboratory [***] (hereinafter referred to as the **"Licensor")** of the one part

AND

AVECIA LIMITED a company registered in England under the number 3730853 and having its registered office at Hexagon Tower, Blackley, Manchester M9 8ZS, acting through its Avecia Biotechnology business at PO Box 2, Belasis Avenue, Billingham TS23 1YN (hereinafter referred to as the **"Licensee")** of the second part

hereinafter referred to collectively as the **"Parties"** or in the singular as a **"Party".**

WHEREAS:

(A) The Licensor is the proprietor of certain patents and patent applications set out in Schedule 1 relating to a [***].

(B) The Licensor has agreed to grant and the Licensee has agreed to accept a licence in respect of the Patents to make, use, keep and/or sell [***];

(C) The Licensor has also assisted the Licensee in the development of [***] and its licensure through a series of contracts, viz:

[***] dated 26 June 2003 being a Master Services Agreement under which Dstl provided services to Avecia in support of Avecia's contract with the National Institutes for Health (no. [***]);

[***] dated 15 December 2004 being a Master Services Agreement under which Dstl provided services to Avecia in support of Avecia's contract with the National Institutes for Health (no. [***]);

[***] dated 30 March 2006 being a Master Services Agreement under which Dstl provided services to Avecia in support of a National Institutes for Health grant to Avecia;

PRIVATE BETWEEN THE PARTIES

a further possible contract [***] under discussion;

and the Licensee has assisted the Licensor in the development of recombinant anthrax vaccine through a series of contracts viz:

[***] dated 2 November 1999 being a contract under which Avecia provided services to Dstl in relation to expression of [***] protective antigen [***];

19 February 2002 being a contract under which Avecia provided services to Dstl in relation to process development of [***] protective antigen [***]

(hereinafter called "the Contracts").

(D) The Licensor has also provided the Licensee with certain technical information and know-how relating to [***].

(E) The Licensee has provided to the Licensor certain technical information and know-how regarding its vaccine manufacturing processes.

(F) It has been agreed between the Parties that while the licence is in force and subject to the conditions contained herein, the Licensee may use all relevant know-how and technical information belonging to the Licensor.

NOW IT IS HEREBY AGREED BETWEEN THE PARTIES AS FOLLOWS:-

1. DEFINITIONS AND INTERPRETATION

1.1. For the purposes of this Agreement, unless the context clearly or necessarily indicates otherwise, the following words and phrases shall have the meanings set forth below:

1.1.1. **"Agreement"** shall mean this manufacturing and marketing licence agreement.

1.1.2. [***]

1.1.3. [***]

1.1.4. **"Commencement Date"** shall mean the day and year first above written.

1.1.5. **"The Intellectual Property"** shall mean the Patents and other know-how and technical information owned by the Licensor necessary to further develop, manufacture, use, keep, sell and offer to sell the [***] Vaccine.

1.1.6. **"Licensed Product"** shall mean an Anthrax Vaccine Dose.

1.1.7. **"Net Sales Price"** shall mean the actual sale price invoiced by the Licensee or, where applicable, a Partner of the Licensee less any separate charges identified for packaging, transportation, insurance and sales taxes and (where applicable) any royalties paid to any Third Party in respect of the Licensed Product in question. If the Licensee sells or disposes of any Licensed Product on otherwise than an arms length transaction basis at the open full market price (eg to another company in the Avecia group or under an off-set or barter agreement), the open market price shall be taken as the actual sales price.

1.1.8. **"PIL"** shall mean Ploughshare Innovations Limited, Building 114, Tetricus Science Park, Porton Down, Salisbury SP4 0 JQ.

1.1.9. **"Patents"** The patents and patent applications set out in Schedule 1 and any equivalents thereof, and any divisionals, continuations, continuations-in-part, re-filings or re-issues of any of the foregoing.

1.1.10. **"Partner"** shall mean any Third Party organisation which Avecia elects to involve in the performance of a Supply Contract.

1.1.11. **"Third Party"** shall mean any person other than the Government of the United Kingdom.

1.2. The singular shall include the plural and vice versa, and the masculine shall include the feminine or the neuter gender and vice versa.

1.3. Unless the context otherwise indicates, references to Articles and Articles and Schedule, are to articles and Articles and the Schedule of this Agreement.

1.4. Headings to Articles in this Agreement are included for ease of reference

only and shall not have any effect on the construction or the interpretation of this Agreement.

1.5. References in this Agreement to any statute or statutory provision shall include any statute or statutory provision which amends, extends, consolidates or replaces the same and shall include any orders, regulations, instruments or other subordinate legislation made under the relevant statute.

2. GRANT OF RIGHTS BY THE LICENSOR

2.1. In consideration for the payments to be made by the Licensee to the Licensor under the provisions of Article 3 below, the Licensor, warranting that he has the right to do so, hereby grants and the Licensee hereby accepts a non-exclusive worldwide licence to use the Intellectual Property to develop, make, use, keep and sell or offer to sell Licensed Products.

2.2. Without prejudice to the provisions of Article 2.3 and 2.4 below the Licensor undertakes that it shall not for the shorter of a period of 3 years from the date of this Agreement or whilst this licence remains in effect grant a licence under the Intellectual Property to further develop, make, use, keep, import or export, or supply or offer to supply Licensed Products to any Third Party providing that the Licensee is diligent and makes reasonable progress, as determined by the Licensor, in obtaining licensure approval of the relevant Government regulatory authorities or any authorities acting on their behalf to supply and use Licensed Products throughout the world and in particular for human use.

2.3. For the avoidance of any doubt, the Licensor and any other Department or Agency of the UK Government shall retain the right at any time to use, or authorise others to use the Licensed Products for any UK Government purpose or otherwise to the extent customary pursuant to standard UK Ministry of Defence contracting procedures, and to dispose of products made in consequence of such use but no longer required; and nothing in this Agreement shall be construed as in any way limiting or derogating from such retained rights, nor from any rights of the Crown arising under any other agreement or contract or provision of law.

2.4. The restrictions imposed by Article 2.2 above shall not prevent or restrict the use of any UK Government patent by or on behalf of the US Government where such use is under the "Agreement between the Government of the United Kingdom of Great Britain and Northern Ireland and the Government of the United States of America to facilitate the interchange of patents and technical information for defence purposes" done in London on 19th January 1953. Furthermore the restrictions imposed by Article 2.2 above shall not be deemed to prevent or hinder the UK Government from authorising any foreign Government to use and have used the Intellectual Property where such use is in furtherance of any formal international co-operative arrangement.

2.5. Save as permitted under Article 2.6 below, the licence granted under this

Agreement is personal to the Licensee and as such shall not be assigned, sub-licensed, mortgaged or in any way dealt with by the Licensee without the prior written consent of the Licensor, which consent shall not be unreasonably withheld, provided that the Licensee may assign the licence and this Agreement without consent in connection with a genuine business re-organisation or to any corporation, association or other business entity which directly or indirectly controls, is controlled by or is under common control with the Licensee. For the avoidance of doubt, consent shall be deemed to be reasonably withheld where the Chief Executive of Dstl receives formal notice from an appropriate authority at the Ministry of Defence or other UK Government Department that assignment to such person would damage the essential public or national interest. Any assignment, sub-licensing or mortgaging of this Agreement by the Licensee, otherwise than as permitted by this Article 2.5, without the prior written consent of the Licensor shall immediately invalidate this Agreement and the licence granted hereunder.

2.6. Notwithstanding the provisions of Article 2.5 above, the Licensee shall be entitled to employ Partners to assist the Licensee in its performance of contracts, subject to the provisions of Article 3 below.

2.7. Save as expressly stated under this Article 2 the Licensee is not authorised hereunder to grant to any Third Party any sub-licence under the Patents Or to pass to such Third Party any of the Intellectual Property.

2.8. The Licensee may request within 6 months prior to the expiry of the period granted under Article 2.2 above that such period should be extended. The Licensee in support of an extension will provide the Licensor with clear information that is sufficient for the Licensor to assess the progress made to date in obtaining licensure of the Licensed Product and such further work' that might be needed to achieve licensure and the timeframes within which! it is reasonable that the further work be completed and licensure obtained. Provided the Licensor is content that the Licensee has been diligent and' has made sufficient progress in obtaining licensure then the Licensor may at his sole discretion extend the period for such additional time as he deems reasonable to achieve licensure. If licensure is achieved whether within the original period under Article 2.2 above or within an extended period as may be granted under this Article 2.8 then the Licensor will, subject to any legal constraints and the Licensee's continuing conformance to this Agreement, further extend the period indefinitely but only in respect of the territories that licensure is achieved by the Licensee.

3. LICENCE PAYMENTS

3.1. In consideration for the grant of rights by the Licensor in Article 2.1 above; the Licensee shall pay to the Licensor a royalty on each and every Licensed Product, equal to [***] of the Net Sales Price of the Licensed Product. Notwithstanding the foregoing, no royalties shall be payable in respect of any samples of Licensed Products which are provided by Avecia for clinical, product development, marketing development or *bona fide* study purposes.

3.2. If the UK Ministry of Defence, US Department of Defence or the Department of Defence of the Government of Canada claims that Licensed Products should be supplied free of royalties or at a reduced royalty rate under existing UK or international arrangements and seeks a waiver of any part of the royalty attributable to Patents set out in Schedule 1, the Licensee shall inform the Licensor. If it is agreed by the Licensor that such supply should be free of patent royalties or at an appropriately reduced royalty, then the Licensor shall inform the Licensee of the royalty (if any) that the Licensor will apply to the supply of Licensed Products concerned. In such a case the notified royalty (if any) shall be substituted for the royalty mentioned Article 3.1 in respect of the relevant supply of Licensed Products.

3.3. The royalty in respect of a Licensed Product shall become payable by the Licensee under this Agreement when the cost of the Licensed Product is invoiced by Avecia. Where the cost of a Licensed Product is payable in two or more installments, the invoice for each installment will be considered separately for the payment of royalties. If no invoice is issued, royalty will become due on delivery of the Licensed Product concerned.

3.4. The payments due under Article 3.1 of this Agreement will fall due half-yearly on 30 June and 31 December and will be payable in accordance with the instructions contained in Articles 3.5 and 3.6 below. The Licensor has appointed PIL as its agent to administer the Licence on its behalf.

3.5. Within sixty (60) days of the end of each half-year period as mentioned in Article 3.4 hereof, the Licensee shall send to PIL (or as otherwise advised) a true and complete statement in writing, including where appropriate a Zero return, of the number of Licensed Products manufactured and sold by or for Licensee during the relevant period, the Net Sales Price derived from sales of such Licensed Products, and the royalty calculated to be payable in respect thereof in accordance with the provisions of Article 3.1.

3.6. All invoiced payments to be made to Licensor under this Agreement shall be made by the end of the month following the month of the date of an invoice from PIL and in accordance with the instructions issued with the relevant invoice. All royalty statements, correspondence and payments to PIL under the provisions of this Article 3 shall quote the PIL reference [***].

3.7. All payments due to PIL shall be paid in pounds Sterling plus, if applicable, VAT at the UK rate prevailing at the time of payment. Where a payment due is in a currency other than pounds Sterling, the rate of exchange to be applied shall be the rate of exchange applied by the Bank of England on the date of the relevant invoice for Licensed Product(s) supplied by the Licensee.

3.8. Without prejudice to the provisions of Article 14.2, if the Licensee fails to make any payment to the Licensor within the time specified in this Agreement, then the Licensee shall be liable to pay interest on the outstanding payment calculated at [***] per annum with effect from the date on which the payment originally fell due, where [***].

3.9. Subject to the provisions of Article 3.10 below, the Licensee shall keep at its usual place of business proper records and books of account showing the quantities and Net Sales Price of all Licensed Products supplied by the Licensee and its Partners under this Agreement and such records and books shall be kept separate from any records and books not relating solely to the Licensed Products. Such records and books of account shall contain such true entries (complete in every particular) as may be necessary or proper for enabling the amount of the payments due to the Licensor under this Agreement to be ascertained. The Licensor or PIL by giving no less than ten (10) working days notice, shall be entitled to inspect such records and books. The Licensee shall, and shall ensure that its Partners shall, make the appropriate records and books of account available to inspection at all times during office hours by the Licensor or PIL or their duly authorised agent or representative who shall be entitled to take copies of or extracts from the same. In addition to the foregoing, the Licensee shall also provide the Licensor or PIL or their duly authorised agent or representative with any other information which may be necessary or appropriate with a view to determining or verifying the royalties due under this Agreement. In the event that such inspection or audit should reveal an underreporting in the royalties payable under this Agreement, the Licensee shall make up any shortfall within thirty (30) days of written notification and, in the event that the said shortfall is more that [***], shall reimburse the Licensor or PIL in respect of any professional charges incurred for such audit or inspection.

3.10. The books of account referred to in Article 3.9 above shall be kept fix a minimum of six years after any relevant transaction and thereafter in accordance with applicable commercial law.

3.11. In accordance with the provisions of Article 11 (Consequences of Termination), the provisions of this Article 3 shall continue to apply notwithstanding termination or expiry of this Agreement until all royalties properly owed by the Licensee to the Licensor in accordance with this Article 3 have been paid to the Licensor.

3.12. In the event that any of the patents, patent applications or equivalents listed in the Schedule expire or are abandoned or revoked, or are reduced in scope such that operation within the scope of a patent claim to manufacture or sell Licensed Products is no longer necessary, but it remains necessary for the Licensee to use some or all of the other Intellectual Property in order to fulfill an extant order for the Licensed Products, then Avecia shall have the right to request a meeting of the parties at which the parties shall negotiate in good

faith with a view to agreeing upon an appropriate reduction to the royalty payable under this Agreement.

4. OWNERSHIP, AND PROTECTION, OF INTELLECTUAL PROPERTY

4.1. Both of the Parties acknowledge that nothing contained in this Agreement shall affect the ownership of any intellectual property existing at the Commencement Date and which is owned by either of the Parties.

4.2. Both the Parties acknowledge that nothing contained in this Agreement shall affect the arrangements for the protection of information which are contained in the Contracts.

4.3. The Licensee shall promptly and fully notify the Licensor in writing of:

4.3.1. any actual, threatened or suspected infringement by any Third Party of the patents listed in Schedule 1 or, if granted, any patent that might be granted pursuant to a patent application listed in Schedule 1.

4.3.2. any proceedings commenced or threatened against the Licensee in which it is alleged that any patent listed in Schedule 1 is invalid and/or its use would infringe Third Party rights, or that use of any of the know how or information, or material contained in any patent application list d in Schedule 1 would infringe Third Party rights;

4.3.3. that come to the notice of the Licensee during the term of this Agreement.

4.4. In the event that the Licensor decides (in the circumstances referred to in Article 4.3.1 above) to institute any proceedings or (in the circumstances referred to in Article 4.3.2 above) to defend any proceedings instituted against the Licensee, the Licensee shall render to the Licensor at the Licensor's expense such reasonable assistance in connection with such proceedings as the Licensor may request.

4.5. In the event that during the term of this Agreement when the provisions of Article 2.2 above shall apply a Third Party is found to be infringing any of the Patents, then the Licensor and the Licensee agree to review the effect that the infringement may have on the Licensee's business and consider the option of the Licensor negotiating a licence with the infringing party on fair and reasonable terms as a way to resolve the infringement issue.

4.6. Provided that the Parties are not engaged in negotiating a sub-licence with an infringing Third Party under Article 4.5 above, in the event that at any time during the term of this Agreement the Licensee is able to establish td the reasonable satisfaction of the Licensor that a Third Party is infringing any of the patents listed in Schedule 1 in any country or countries of the world where

such patents have force, and that such infringement can be shown to be having a significant impact upon sales of the Licensee's own Licensed Products (for example, such infringement has an impact on sales which the Licence could have made but for such infringement) in such countries, and the Licensor is unable or unwilling within a reasonable period to take such action as may be necessary to settle or prevent such infringement in that country, then the royalty payable under this Agreement by the Licensee in respect of such patents in such countries shall cease to be payable until the date on which such infringement is settled or prevented.

4.7. The cessation of royalties under Article 4.6 above shall apply in respect of sales of Licensed Products by the Licensee in the relevant country or countries from the date on which the Licensee is able to establish the infringement in accordance with Article 4.6 above.

5. WARRANTY AND LIABILITY

5.1. Nothing contained in this Agreement or in any licence granted hereunder shall be construed as or deemed to be:-

5.1.1. a representation or warranty that use of any the Patents will not infringe any intellectual property rights owned by a Third Party anywhere in the world; or

5.1.2. an indemnity against costs, damages, royalties, liabilities, expenses or other payments arising out of any proceedings based on infringe6ent brought against the Licensee or customers, agents or distributors of the Licensee;and any such representation, warranty or indemnity is hereby expressly excluded.

5.2. The Licensee shall at all times indemnify and keep indemnified the Licensor against all costs, claims, damages or expenses incurred by the Licensor for which the Licensor may become liable with respect to any product liability claim relating to any products supplied or put into use by the Lice see pursuant to this Agreement. The Licensee shall maintain sufficient product liability insurance coverage to cover its commitments under this Agreement.

5.3. The Licensor shall not be liable for any loss or damage howsoever caused which results from the Licensee's use of the Patents in exercise of the Licensee's rights under this Agreement and the Licensor gives no warranty that anything contained in the Patents, any know-how or information is suitable for any purpose.

6. TAXATION

6.1. If any stamp taxes, registration taxes, turnover taxes, or other taxes, duties or governmental charges are levied on this Agreement by reason of its execution or performance, it shall be the responsibility of the Licensee to pay all such taxes and charges when due.

6.2. The Licensee agrees to release and indemnify the Licensor from and against any liability of whatever nature arising out of the Licensee's failure duly and timely to pay and discharge any of the above-mentioned taxes.

7. DISCLOSURES OF INFORMATION ABROAD

7.1. Each Party will keep all know-how and other information belonging to the other Party confidential and will not disclose it to any Third Party. Where either Party engages an agent (such as PIL) to undertake anything in connection with this Agreement, that party will procure that the agent is bound likewise and any breaches of the confidentiality obligations by such agent shall be treated s a breach of this Agreement by the party engaging such agent. This restriction does not apply to disclosures made in accordance with Article 7.2 below, or authorised under Article 7.3, or to:

7.1.1. Any information which is or comes into the public domain otherwise than through breach of this Agreement;

7.1.2. Any information already known, at the time of its disclosure, by the recipient;

7.1.3. Any information received from a Third Party which has the right to disclose the same;

7.1.4. Any information that it is necessary to impart to customers of the recombinant protective antigen Licensed Products to ensure its safe and effective use.

7.2. The Licensor permits the Licensee to use any know-how and information owned or controlled by the Licensor and in the possession of the License as necessary to secure from any part of the US Government or the Government of Canada contracts for the further development, manufacture and supp y of recombinant protective antigen Licensed Products

7.3. Furthermore, if the Licensee desires to pursue contracts for the fu her development, manufacture and supply of recombinant protective antigen Licensed Products outside the Governments of the United States of America, Canada, or the United Kingdom, the Licensee will approach the Licensor for permission to release information such know-how and information owned or controlled by the Licensor in the possession of the Licensee as may be

necessary to enable that to be done. Each approach will be considered on its merits and permission will not be unreasonably with-held, provided that it is consistent with wider UK Government interests.

8. EXPORT CONTROL

8.1. The Licensee shall be responsible for complying with the applicable Export of Goods (Control) Order.

8.2. This Agreement does not grant authority for the Licensee to export from the United Kingdom, any Licensed Product, or any information relating thereto without any necessary licence under any applicable Export of Goods (Control) Order. Any necessary export licence must be made to the Export Licensing Unit of the Department of Trade and Industry.

9. COMING INTO EFFECT AND DURATION

9.1. This Agreement shall come into effect on the Commencement Date and, unless terminated in accordance with the provisions of Article 10, shall remain in effect indefinitely.

10. TERMINATION

10.1. The Licensor shall have the right to terminate this Agreement at any time forthwith by notice in writing to the Licensee on the happening of any of the following events:

10.1.1. if the Licensee is in breach of any of its obligations under this Agreement, and fails to remedy such breach or fails to take steps to substantially remedy the breach within thirty (30) days of a written notice issued to it by the Licensor to do so; or

10.1.2. if the Licensee shall have a Receiver or Liquidator appointed to the whole or any part of its assets or if an Order shall be made or any resolution passed for winding up the Licensee unless such Order or resolution is part of a scheme for amalgamation or reconstruction of the Licensee; or

10.1.3. if the Licensee assigns, sub-licences, mortgages, or in any other way deals with the licence granted under this Agreement without the prior written consent of the Licensor; or

10.1.4. if a person, whether alone or in conjunction with any Connected Person (as defined in section 839 of the Taxes Act 1998) acquires control of the Licensee and the Chief Executive of Dstl receives notice from an appropriate authority at the Ministry of Defence or other UK Government Department that such an acquisition would

damage the essential public or national interest, where control of the Licensee means the power of a person to secure either by means of the holding of share or possession of voting power in or in relation to the Licensee or by virtue of any powers conferred by articles of association or other document regulating the Licensee that its a airs are conducted in accordance with the wishes of that person; or

10.1.5. in any other event expressly identified in this Agreement as givin0 the Licensor a right to terminate.

10.2. The Licensee shall have the right to terminate this Agreement at any time on giving three (3) months prior written notice to the Licensor.

10.3. At any time after the expiry of the three year period mentioned in Article 2.2 it appears to the Licensor that there is no prospect of the Licensee selling any Licensed Products, the Licensor shall notify the Licensee.

10.4 If Licensee does not agree with the Licensor's opinion expressed in such a notification under Article 10.3, the Licensee shall inform the Licensor giving his reasons for disagreement. If the Parties cannot resolve their differences on this matter within 6 months, the disagreement will be resolved according to Dispute Resolution procedures of Article 16.

10.5. If the Licensee agrees with the Licensor's opinion expressed in such a notification under Article 10.3, or the Licensee does not respond with 90 days to a notification given under Article 10.3, or any subsequent dispute Resolution procedure under Articles 10.4 and 16 concludes that there is no reasonable prospect of the Licensee selling any Licensed Products, the this agreement will terminate on notice given in writing by the Licensor.

11. CONSEQUENCES OF TERMINATION

11.1. Upon the termination of this Agreement under the provisions of Article 10 above, all rights and licences granted in favour of the Licensee hereunder shall cease, except and to the extent expressly provided otherwise under the terms of this Agreement.

11.2. Immediately upon the termination of this Agreement all licence payments accrued to date under Article 3.1 above shall become payable and all other obligations shall become due. In the event of termination of this Agreement under the provisions of Article 10 the Licensee shall have the right from the date of termination to dispose of all stocks of Licensed Products its possession and to fulfill any outstanding orders for the Licensed Products, subject in each case to the payment of royalties as payable under Article 3.1 hereof.

11.3. The expiry or termination of this Agreement shall be without prejudice to the provisions of Article 5 (Warranty and Liability) and this Article 11 (Consequences of Termination), to any other express obligations in his Agreement of a continuing nature, and to any rights of either Party which ay have accrued up to the date of termination.

12. ASSIGNMENT BY THE LICENSOR

12.1. During the period mentioned in Clause 2.2, the Licensor will not assign this Agreement or any of the Intellectual Property to any Third Party without the consent of the Licensee.

12.2. After the period mentioned in Clause 2.2, any such assignment made will preserve the rights of the Licensor set out in this Agreement.

13. VALIDITY OF THE AGREEMENT

13.1. In the event that any provisions of this Agreement shall for any reason be declared or rendered invalid, illegal or unenforceable in any respect, such provisions shall, to the extent of such invalidity, illegality or unenforceability, be deemed severable and shall not affect the validity, legality or enforceability of the remainder of this Agreement, which shall continue in full force and effect, save that if the nature of the invalidity, illegality or unenforceability is such that it destroys the business efficacy of this Agreement, the Parties shall confer to determine whether the Agreement shall be terminated or whether such severed provisions shall be replaced with enforceable provisions to the satisfaction of both of the Parties.

14. MISCELLANEOUS PROVISIONS

14.1. Each Party shall at any time on the request of the other do and execute all such acts, deeds, documents and things as may reasonably be required by the other to perfect and complete the grant of rights and licences conferred by this Agreement on the other, or to record any change in the status of such rights, including, in particular, entry into forms of licence or other instruments confirmatory of such rights for registration with appropriate authorities in any country.

14.2. No relaxation, forbearance, delay or indulgence by either party in enforcing any of the terms and conditions of this Agreement or the granting of time by either Party to the other shall prejudice, affect or restrict the rights and powers of that Party under this Agreement nor shall any waiver by either Party of any breach of this Agreement operate as a waiver of or in relation to any subsequent or any continuing breach of this Agreement.

14.3. No variation of this Agreement shall be effective unless it is in writing signed by a duly authorised officer of each Party.

14.4. Nothing in this Agreement shall be deemed to constitute a partnership between the Parties nor shall either Party be taken to have any author' y to bind or commit the other or be taken to have authority to act as the age t of the other or in any other capacity other than as expressly authorised in this Agreement.

14.5. Any notice or communication authorised or required to be given hereunder or for the purpose hereof shall be deemed to be duly given if left or sent by post or if sent by cable, facsimile or telex so addressed if confirmed by post in like manner to:-

the Licensor at:

[***]
[***]
[***]
[***]
[***]

[***]

quoting the reference [***].

the Licensee at:

Business Manager, Vaccines
Avecia Limited
PO Box 2
Belasis Avenue
Billingham TS23 lYN

Facsimile: 01642 522622

Copied to:
The Company Secretary Avecia Limited
Legal Affairs Department PO Box 42
Hexagon Tower Blackley
Manchester M9 8ZS

Facsimile: 0161 721 1886

Any notice so given by post shall be deemed to be served at the expiration of seven (7) days after it has been posted and in proving such service it shaII be sufficient to prove that the envelope containing the notice was properly addressed and posted.

14.6. A person who is not a party to this Agreement shall have no right under the Contracts (Rights of Third Parties) Act 1999 to enforce any term of this Agreement. This Article does not affect any right or remedy of any person which exists or is available otherwise than pursuant to that Act.

15. LAW AND JURISDICTION

15.1. This Agreement shall be considered as a contract made in England subject to English Law.

15.2. Subject to Article 15 and without prejudice to the dispute resolution process set out in that Article, each Party hereby irrevocably submits and agrees to the exclusive jurisdiction of the Courts of England to resolve, and the laws of England to govern, any actions, proceedings, controversy or claim of whatever nature arising out of or relating to this Agreement or breach thereof.

15.3. Other jurisdictions may apply solely for the purpose of giving effect to this Article and for the enforcement of any judgement, order or award given under English jurisdiction.

16. DISPUTE RESOLUTION

16.1. Without prejudice to the operation of the dispute resolution or arbitration provisions, if any, governing disputes, differences or questions arising out of the Development Contracts and where necessary the examination of this Agreement pursuant to such dispute resolution or arbitration provisions:

16.1.1 the parties will attempt in good faith to resolve any dispute or claim arising out of or relating to this Agreement 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 (ADR) procedure on which the parties may agree;

16.1.2 in the event that the dispute or claim is not resolved by negotiation, or where the parties have agreed to use an ADR procedure, by the use of such procedure, the dispute shall be referred to arbitration;

16.1.3 the party initiating the arbitration shall give a written Notice of Arbitration to the other party, which Notice of Arbitration shall specifically state:

(a) that the dispute is referred to arbitration; and

(b) the particulars of this Agreement out of or in relation to which the dispute arises;

16.1.4 unless otherwise agreed in writing by the parties, the arbitration and this Article 14 shall be governed by the provisions of the Arbitration Act 1996 or any statutory modification or re-enactment thereof;

16.1.5 it is agreed between the Parties that for the purposes of the arbitration, the arbitrator shall have the power to make provisional awards as provided for in Section 39 of the Arbitration Act 1996; and

16.1.6 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 relating to the arbitration or otherwise; and no report relating to anything said, done or produced in or in relation to the arbitration process may be made beyond the tribunal, the Parties, their legal representatives and any person necessary to the conduct of the proceedings, without the concurrence of all the Parties to the arbitration.

17. COMPLETE AGREEMENT

17.1. This Agreement consisting of seventeen (17) Articles represents the e tire agreement between the Parties on the subject of the use by the License of the Patents and other Intellectual Property for the purposes set out h rein and supersedes all prior proposals, oral or written, between the Parties on this subject.

IN WITNESS WHEREOF the Parties entered into this Agreement in two (2) counterparts, each of which is equally valid, he day and year first above written.

SIGNED on behalf of THE SECRETARY OF STATE FOR DEFENCE by:

[***]

[***]
[***]
[***]
[***]

PRIVATE BETWEEN THE PARTIES

SIGNED for and on behalf of AVECIA LIMITED by:

/s/ Kevin Cox

K.P. COX Director
Authorised to sign on behalf of Avecia Limited

PRIVATE BETWEEN THE PARTIES

[***]

PRIVATE BETWEEN THE PARTIES

PharmAthene, Inc.
Confidential Materials Omitted and Filed Separately with the
Securities and Exchange Commission
Confidential Portions denoted by [***]

Intellectual Property Group Manager	[***] [***] [***] [***] [***] [***]	[***] [***] [***] [***]	[***] [***]

Avecia Biologics Limited
Hexagon Tower
Blackley
Manchester
M9 8ZS
(Attn Chris Revell)

[dstl]

20 March 2008

Our refs: [***]

Dear Sirs

Manufacturing and Marketing Licence Agreement In respect of [***] Manufacturing Licence Agreement [***]

We hereby agree that the exclusive period under clause 2.2 of each of the above licenses is extended and the exclusive period is for the period that the license remains in effect and is for the benefit of you or your assignees. In each case, such exclusive period shall (without prejudice to our rights to terminate the licences in accordance with their terms) be subject to termination only if you or any party to whom you assign your license agreements does not diligently pursue development of products using the respective technology licensed to you by us, by prior written notice to Avecia (or an Avecia assignee) of an intent to terminate the exclusive period. Such proposed termination is subject to the dispute resolution procedure of Clause 14.1 of the [***] License and Clause 16.1 of the [***] License. This extension is subject to

1. continuation of the rights of Dstl under Clauses 2.3 and 2.4 of each agreement;

2. replacement of [***] in Clause 2.2 of the 20th June 2006 agreement [***] by [***]; and

3. deletion of Clauses 2.8, 10.3, 10.4 and 10.5 In the 6th December 2006 [***] Licence and Clauses 2.8 and 9.3 in the 20 June 2006 [***] licence.

4. In consideration for the extension, it is agreed that:

   a. Dstl shall not be obliged to take action against infringers but you shall have the right to do so at your own cost and expense;

   b. Dstl shall be entitled receive the lower of the royalty as set out in the licences in respect of sales of products by the infringers or [***] of any recovery obtained as a result of such action (less the attributable costs of such an action);

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   c. You or your assignee shall pay to Dstl;

      I. a lump sum of [***] being roughly equivalent to the costs Incurred prior to the date of signature hereof of prosecuting and maintaining the patents and patent applications listed in the Schedules of the licences but excluding the costs associated with US patent interference proceedings; and

      II. a minimum annual royalty equivalent to the ongoing costs of prosecuting and maintaining the patent and patent applications listed In the Schedules of the licenses together with any additional patents and patent applications that are added by mutual agreement.

   d. The parties shall meet every three years in order to review the position generally in respect of each licence. In the event that Dstl considers there no longer to be a market for products being developed or produced by the licensee, Dstl and the licensee will engage in bona-fide discussions to determine the future of the licences and the wisdom of continuing them in force.

   e. The parties (including any Avecia assignee) agree that the amendments to the licence agreements set out above are binding and that the provisions of this letter specifically amend the respective agreements from the date hereof; however, the parties (Including any Avecia assignee) will engage in bona-fide discussions to further amend the respective agreements, if required, to clarify any wording thereof, provided, however, the failure to agree to any clarification shall not change the binding effect of these amendments and the respective agreements.

This letter specifically amends any and all contrary provisions in the above license agreements. This letter supersedes the letter signed on March 19 2008 which shall be null and void including as to any payment obligations thereunder.

Please confirm your agreement to the above by signing below.

[***]

[***]
[***]
[***]

Agreed:

/s/ D. McLellan

By: D. McLellan
Director

Approved as to
legal form by [***]

For

Avecia Biologics Limited

Exhibit 31.1

Certification of Principal Executive Officer
Pursuant to SEC Rule 13a-14(a)/15d-14(a)

I, David P. Wright, certify that:

1. I have reviewed this Amendment No. 1 to the Quarterly Report on Form 10-Q of PharmAthene, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statement for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: August 19, 2008

/s/ David P. Wright
Name: **David P. Wright**
Title: **Principal Executive Officer**

Exhibit 31.2

Certification of Principal Financial Officer
Pursuant to SEC Rule 13a-14(a)/15d-14(a)

I, Christopher C. Camut certify that:

1. I have reviewed this Amendment No. 1 to the Quarterly Report on Form 10-Q of PharmAthene, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statement for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: August 19, 2008

/s/ Christopher C. Camut
Name: **Christopher C. Camut**
Title: **Principal Financial Officer**

Exhibit 32.1

Certification Pursuant to Section 1350 of Chapter 63
of Title 18 of the United States Code

In connection with Amendment No. 1 to the Quarterly Report of PharmAthene, Inc. (the "Company") on Form 10-Q for the quarter ended June 30, 2008, as filed with the Securities and Exchange Commission (the "Report"), I, David P. Wright, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ David P. Wright
David P. Wright
Principal Executive Officer
August 19, 2008

Exhibit 32.2

Certification Pursuant to Section 1350 of Chapter 63
of Title 18 of the United States Code

In connection with Amendment No. 1 to the Quarterly Report of PharmAthene, Inc. (the "Company") on Form 10-Q for the quarter ended June 30, 2008, as filed with the Securities and Exchange Commission (the "Report"), I, Christopher C. Camut, Principal Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Christopher C. Camut
Christopher C. Camut
Principal Financial Officer
August 19, 2008