503980068 08/26/2016 PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT4026724

SUBMISSION TYPE:		NEW ASSIGNMENT			
NATURE OF CONVEYANCE:		ASSIGNMENT	ASSIGNMENT		
CONVEYING PARTY DA	ΑΤΑ				
		Name		Execution Date	
MURDOCH UNIVERSIT	Y			11/04/2008	
RECEIVING PARTY DA	ТА				
Name:	SPIROG	ENE PTY LTD			
Street Address:	BUILDIN	BUILDING 191, CAMPUS DRIVE			
City:	MURDC	СН			
State/Country:	AUSTRA	LIA			
Postal Code:	6150				
	.				
PROPERTY NUMBERS	Total: 1	Numbor			
Property Type		Number			
Patent Number:	ç	011878			
CORRESPONDENCE D		206\224_0779]		
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Assignment Deed

Details

Parties				
University	Name	MURDOCH UNIVERSITY		
	Address	South Street, Murdoch, Western Australia		
	Telephone	(08) 9360 2574		
	Fax	(08) 9360 6686		
	Attention	Director Research & Development		
Company	Name	SPIROGENE PTY LTD		
	ABN/ACN/A	ARBN 86 126 864 846		
	Address	Building 191, Campus Drive		
	,	Murdoch University, South Street, Murdoch, Western Australia		
	Fax	08 9360 7598		
	Attention	The CEO		
Recitals	A The	The University owns the Assignment IP.		
ć	B The University has agreed to assign all of its right, title and interest in the Assignment IP to the Company, subject to the Company granting back certain licences.			
	C This Deed records the assignment of the Assignment IP agreed to by the parties.			
Governing law	Western Au	stralia		
Date of Deed	See Signing	page		

PATENT REEL: 039558 FRAME: 0654

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General terms

1 Definitions and interpretation

1.1 Definitions

The following words and expressions shall have the following meanings:

"Assignment IP" means: (a) the Intellectual Property Rights described in Annexure A; (b) Intellectual Property Rights that may be granted or have been granted pursuant to any applications described in Annexure A; and (c) any other Intellectual Property Rights that may derive priority from or have equivalent claims to the Intellectual Property Rights described in (a) or (b) in any other territory.

"Confidential Information" means all information, know-how, ideas, concepts, technology, technical data manufacturing processes and industrial knowledge relating to the Assignment IP.

"Field" means any field other than vaccines.

"Intellectual Property Rights" includes copyright, all rights in relation to inventions (including patent rights), plant varieties, registered and unregistered trademarks (including service marks), registered designs, rights in respect of confidential information (including trade secrets and know-how) and circuit layouts.

1.2 Interpretation

- (a) A reference in this Deed to a person shall include corporations; words including singular number shall include plural number and vice versa; words including a gender shall include all other genders.
- (b) A reference in this Deed to a statute or a section of a statute includes all amendments to that statute or section passed in substitution for the statute or section referred to or incorporating any of its provisions.
- (c) Clause headings have been inserted for the purpose of guidance only, and shall not be part of this Deed.
- (d) The fact that a party prepared this Deed will not be taken into account as a basis for interpreting this Deed, or any provision of it, adversely to that party's interest.

2 ASSIGNMENT

Subject to clause 5, the University hereby assigns and conveys to the Company the entire right, title and interest in and to the Assignment IP and any and all inventions disclosed in the Assignment IP, including (without limitation) all rights of the University:

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- (a) to sue for past infringements of the Assignment IP, including the right to collect and receive any damages, royalties, or settlements for such infringements; and
- (b) to any and all causes of actions relating to any of the inventions or discoveries described in the Assignment IP.

3 COOPERATION

3.1 Cooperation

The University agrees to provide reasonable assistance to the Company in:

- (a) providing letters of instruction and revocations of powers of attorney with respect to prosecution counsel; and
- (b) executing and delivering any additional documents which are reasonably required in order to effectuate the assignment accomplished by this Deed, including without limitation the document in Exhibit A,

and will ensure that its employees, agents and contractors agree to:

- (c) assist the Company in preparing, prosecuting and procuring patents and copyrights in respect of the Assignment IP;
- (d) execute and deliver all documents necessary or desirable to apply for and obtain patents or copyrights in respect of the Assignment IP; and
- (e) execute and deliver all documents necessary or desirable to vest the Company with full title to such patents or copyrights.

4 WARRANTIES

4.1 University

Subject to clauses 4.2, the University represents and warrants to the Company that:

- (a) with the exception of any licences disclosed under clause 5 of this Agreement, to the best of the University's knowledge and belief after reasonable inquiry, it owns the entire right, title and interest to the Assignment IP, free and clear of any liens and encumbrances;
- (b) it possesses the right and power to enter into this Deed and grant the rights granted herein; and
- (c) with the exception of any licenses disclosed under clause 5 of this Agreement, to the best of the University's knowledge and belief after reasonable inquiry no licenses have ever been granted by the University for the Assignment IP.

4.2 Limitation of warranty

The University makes no warranties:

- (a) as to the validity or enforceability of any patent application or patent;
- (b) that the practice of any patent application or patent does not infringe any third party patent; and
- (c) of merchantability or fitness for a particular purpose.

5 Reserved Rights

The Company acknowledges that any assignment under this Deed (including under Exhibit A) is subject to the University:

- having a perpetual, non-exclusive, royalty free licence to use Assignment IP for genuine teaching and academic research activities providing that such activities do not in any way limit its continuing obligations under clause 6 of this Deed;
- (b) hereby agreeing, in the event the University proposes to commercialise any new intellectual property derived from the use specified under clause 5(a), to negotiate a further licence with the Company, as necessary to permit the commercialisation activity; and
- (c) having a perpetual, irrevocable, exclusive, royalty-free licence (including the right of sublicence) to use, commercialise and otherwise exploit the Assignment IP in the Field.

The Company acknowledges that the University has already granted licences to third parties consistent with clause 5(c).

6 Secrecy obligations

6.1 Confidential Information

Each party shall:

- (a) keep confidential all Confidential Information disclosed to it by the other party;
- (b) not use any Confidential Information disclosed to it by the other party except for the purposes of and on the terms of this Deed; and
- (c) exercise every reasonable precaution to prevent and restrain the unauthorised disclosure of Confidential Information disclosed to it by the other party.

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6.2 Permitted Disclosures

Notwithstanding the provisions of clause 6.1, a party may disclose information to the extent that:

- (a) such disclosure is forced by laws, regulations or orders;
- (b) the information is generally available in the public domain except where that is a result of a disclosure in breach of this Deed;
- (c) a party can prove that it independently developed the information before it was disclosed to it;
- (d) with the written consent of the party entitled to the protection of confidentiality; or
- (e) the information was received from a third party on a non-confidential basis, unless the recipient knew or ought to have known that the third party breached an obligation of confidence by providing such information.

6.3 Other disclosures to Third Parties

Notwithstanding the provisions of clause 6.1, the Company may disclose Confidential Information to a third party for the purpose of commercialisation of the Assignment IP, where the Company has obtained the prior written agreement of that party to keep the information confidential (Undertaking), The Company shall ensure the Undertaking is substantially in the terms of clauses 6.1 and 6.2 of this Deed. The Company further agrees that in the event of any actual or suspected breach of confidentiality by that third party, that the Company will enforce the Undertaking at its own cost.

7 General

7.1 Waiver

Any waiver or forbeatance in regard to the performance of this Deed shall operate only if in writing and shall apply only to the specified instance, and shall not affect the existence and continued applicability of the terms of it thereafter.

7.2 Entire Agreement

This Deed embodies all the terms binding between the parties relating to the subject matter and replaces all previous representations, agreements or proposals, express or implied, written or oral, not embodied herein.

7.3 Applicable law

This Deed shall be read and construed according to the laws of the State of Western Australia and the parties irrevocably and unconditionally submit to the exclusive

jurisdiction of the courts of Western Australia and courts entitled to hear appeals from those courts.

7.4 Amendments

This Deed may not be varied except by another deed signed by the parties.

7.5 Severability

If any provision of this Deed is held by a court to be unlawful, invalid, unenforceable or in conflict with any rule of law, statute, ordinance or regulation, the validity and enforceability of the remaining provisions shall not be thereby affected.

7.6 No agency or partnership

This Deed does not constitute any party the agent of another or imply that the parties intend constituting a partnership, joint venture or other form of association in which any party may be liable for the acts or omissions of another. No party has the authority to pledge the credit of another.

7.7 Further agreements

Each party shall execute such agreements, deeds and documents and do or cause to be executed or done all such acts and things as shall be necessary to give effect to this Deed.

7.8 Assignment

The University may not assign all or any of its rights or obligations under this Deed (except for its rights under clause 5(c)) without the prior written consent of the Company. The Company may assign its rights or obligations under this Deed in whole or in part to a third party, provided that such assignment is subject to an agreement which provides for:

- (a) licences to be issued to the University on the same terms that granted under clause 5 of this Deed; and
- (b) the third party to maintain confidentiality on the terms set out under clause 6 of this Deed.

8 Notices

8.1 Form

Unless expressly stated otherwise in this Deed, all notices, certificates, consents, approvals, waivers and other communications in connection with this Deed ("Notices") must be in writing, sent by a person authorised by the sender for the purposes of this Deed and marked for the attention of the person identified in the

Details or, if the recipient has notified otherwise, then marked for attention in the way last notified



(c) sent by fax to the fax number set out in the Details.

However, if the intended recipient has notified a change in notice details, then the communication must be to those new details.

8.3 When effective

Unless a later time is specified in it, a Notice takes effect:

- (a) if left at the address set out in the Details, upon delivery;
- (b) if sent by post, two days after posting (or seven days after posting if sent to or from a place outside Australia); and
- (c) if sent by fax, at the time shown in the transmission report as the time that the whole fax was successfully transmitted, unless the recipient advises the sender within 1 business day that the transmission was not fully received,

except that, if it is received after 5.00pm in the place of receipt or on a non-working day in that place, it is taken to be received at 9.00am on the next succeeding working day in that place unless a later time is specified.

DATED: 4 November 2008 SIGNED as a Deed. EXECUTED under seal by **MURDOCH UNIVERSITY** in accordance with clause 1 of Statute 1 and Senate resolution S/51/2007 Signapure of General Counsel Signature of Chancellor/Pro-Chancellor/Vice-Chancellor Professor John Yovich JEREAM RIGG Vice Chancellor Mordoch University Full name Full name, South Street Murdoch WA 6150 1 Australia Signed sealed and delivered by Spirogene Pty Ltd in accordance with section 127(1) of the Corporations Act 2001 (Cwlth) by authority of its directors: Signature of Director or Signature of Director: Secretary: Name (print): Name (print): **Tim Morrison** Alistair Murdoch Date: 4/11/08 Date: 24 10 . 68

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<u>EXHIBIT A</u>

ASSIGNMENT

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, MURDOCH UNIVERSITY a body corporate established pursuant to the provisions of the Murdoch University Act 1973 (Western Australia), hereby sells, assigns, transfers and conveys to SPIROGENE PTY LTD, an Australian corporation ("Company"), its designees, successors and assigns, the entire right, title and interest in and to Patent Application No. [insert], all patents arising from such application and all patents that that may derive priority from or have equivalent claims to such application and related applications, divisions, continuations, and renewals thereof, all inventions described in that patent, and all proceeds thereof (including but not limited to, all license royalties and proceeds of infringement suits) and all letters patent which may be granted on the applications or any corresponding applications, and all reissues, extensions thereof, and in and to any and all causes of action for past, present and future infringement of any of the patents, or relating to any inventions or discoveries described therein, including the right to collect royalties for all such infringements and the right to sue on all such causes of action for their own use and benefit and the use and benefit of their successors, assigns and legal representatives, each and every of the foregoing rights, titles and interests herein assigned to be held and enjoyed by the Company, its designees, successors and assigns, as fully and entirely as the same would have been held and enjoyed by Murdoch University had this Assignment not been made

IN TESTIMONY WHEREOF, Murdoch University has caused this Assignment to be duly executed in its name and behalf by affixing its hand and seal thereto by its designated officer, director, or agent, whose name and title appear below.

Executed at,this	is day of _	, 200
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Murdoch University

By	 		
Name:			

Title:

Annexure A

Assignment IP

Case Number	Priority Application	Publication
34239	Australian Priority	
BmpB novel nucleotide and	AU 2002-953431	
amino acid sequences and diagnostic and therapeutic uses	Filed 19 Dec 2002	
thereof (Brachyspira 1)	US 11/195063 (Div)	Published
	Filed 2 August 2005	16 March 2006
	US 10/739,583	Published
	Filed 18 Dec 2003	23 Sept 2004
34141	Australian priority	Publication
BPMP-72 novel	AU-2003907017	PCT/AU2004/001783 on
Brachyspira pilisicoli nucleotide and amino acid sequences and	Filed 19 Dec 2003	30 June 2005
therapeutic uses thereof	Australia national	
(Brachyspira 2)	AU2004299519	
	Filed 17 Dec 2004	
	BRPI0417798 3	BR published
	Filed 17 Dec 2004	20 Mar 2007
	CA2545671	CA not yet published
	Filed 17 Dec 2007	
	CN200480038092.7	CN published 17 Jan 2007
	Filed 17 Dec 2004	2007
		EP published
	EP 04802085.3	6 Sept 2006
	Filed 17 Dec 2004	
		HK published
	HK07100935.1 Filed 25 Jan 2007	4 May 2007
	THEU ZU JAH ZUUT	JP published
	JP2006-544177	29 Nov 2007
	Filed 17 Dec 2004	
		NZ not yet published
	NZ546994	
	Filed 17 Dec 2004	US published 1 Feb 2007
	US10/583,202	
	Filed 17 Dec 2004	
34260	AU Priority	Publication of PCT
Brachyspira vaccine	AU2005902418	16 November 2006 WO2006/119983
Brachyspira 3)	Filed 12 May 2005	1002000/119903

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НҮО	AR P0610869 Filed 10 May 2006	AR published 2 May 2007
	AU 2006245965	AU not yet published
	Filed 10 May 2006	BR not published yet
	BR PI0611534-9 Filed 10 May 2006	CL published 20 October 2006
	CL1099-2006	CN not yet
	Filed 11 May 2006	Published
	CN PCT/EP2006/004385 Filed 10 May 2006	
	EP06753549.2 Filed 10 May 2006	EP published 30 January 2008
	PE000496/2006-OIN Filed 10 May 2006	PE published 18 Jan 2007
	TH 0601001794 Filed 20 April 2006	TH not yet published
	TW 95116862 Filed 12 May 2006	TW published 16 May 2007
	VE 1047-06 Filed 15 May 2006	VE not yet published
34325		DOT/ED08/005084
Brachyspira pilisicoli Brachyspira 4	AU Priority AU2005903317 Filed 23 June 2005	PCT/EP06/005961 Published 28 Dec 2006
PILO	AU/EP06/005961 Filed 21 June 2006	=PCT
•	BR PI0611833-0 Filed 21 June 2006	=PCT
	CN/EP06/005961 Filed 21 June 2006	=PCT
		PE published 12 March 2007
		not yet published
		not yet published

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50106	AU priority	PCT/EP07/002424
Brachyspira hyodysenteria	AU2006901417	Published
vaccine - (Brachyspira 5)	Filed 20 March 2006	27 September 2007
НҮО	PCT filed	
	27 Sept 2007	
50142	AU priority	PCT/EP07/002955
Novel Brachyspira pilosicoli	AU2006901925	Published
Genes and Proteins and Uses	Filed 03 April 2006	11 October 2007
Thereof		· · · · ·
(Brachyspira 6)		
PILO		
50346	AU priority	PCT/EP07/058049
Brachyspira hyodysenteriae	AU 2006904311	Published
Genes and Proteins -	Filed 9 August 2006	14 Feb 2008
(Brachyspira 7)]
НҮО		
50358	EP Priority	
Brachyspira hyodysenteriae	EP06119049.2	No publication
Genes and Proteins -	Filed 16 August 2006	
(Brachyspira 8)		
HYO		
52578	EP Priority	Not yet published
Brachyspira hyodysenteriae	08152093.4	
Genes and Proteins -	Filed	
(Brachyspira 9)	28 Feb 2008	
НҮО		
52610	EP Priority	Not yet published
Brachyspira hyodysenteriae	08153406.7	
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Genes and Proteins - (Brachyspira 10)	27 Mar 2008	

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RECORDED: 08/26/2016