Appendix 3B

New issue announcement, application for quotation of additional securities and agreement

Information or documents not available now must be given to ASX as soon as available. Information and documents given to ASX become ASX's property and may be made public.

Introduced 1/7/96. Origin: Appendix 5. Amended 1/7/98, 1/9/99, 1/7/2000, 30/9/2001, 11/3/2002, 1/1/2003, 24/10/2005.

Name of entity

CHEMGENEX PHARMACEUTICALS LTD

ABN 79 000 248 304

We (the entity) give ASX the following information.

Part 1 - All issues

You must complete the relevant sections (attach sheets if there is not enough space).

1	⁺ Class of ⁺ securities issued or to be issued	ISSUE ORDINARY SHARES UPON CONVERSION OF LISTED CXSOA OPTIONS.
2	Number of ⁺ securities issued or to be issued (if known) or maximum number which may be issued	ISSUE OF 6 ORDINARY SHARES.
3	Principal terms of the ⁺ securities (eg, if options, exercise price and expiry date; if partly paid ⁺ securities, the amount outstanding and due dates for payment; if ⁺ convertible securities, the conversion price and dates for conversion)	6 FULLY PAID ORDINARY SHARES ISSUED ON CONVERSION OF 6 LISTED CXSOA OPTIONS WITH AN EXERCISE PRICE of A\$0.68.

⁺ See chapter 19 for defined terms.

	otment (HARES RANK EQUALLY WITH ARES.
 rank equally, please state: the date from which they do the extent to which participate for the next div (in the case of a distribution) or interest pay the extent to which they or rank equally, other that relation to the next div 	o they vidend, trust, vment do not an in vidend,		
Issue price or consideration	(OF CXSOA O	SIDERATION FOR CONVESRION PTIONS TO ORDINARY SHARES M 3 ABOVE).
	for the	CONVERSION	OF LISTED CXSOA OPTIONS.
Dates of entering ⁺ securities into uncertificated holdings or despatch of certificates	CERTI	FICATE ISSUE	ED AS SOON AS
	Numbe	er	+Class
Number and ⁺ class of all ⁺ securities	282,968	8,557	ORD SHARES
quoted on ASX (<i>including</i> the securities in clause 2 if applicable)	22,153,	,313	OPTIONS EXPIRING MARCH 12, 2010, EXERCISABLE AT \$1.18
	10,950,	,118	OPTIONS EXPIRING 8 FEB 2012, EXERCISABLE AT \$0.68
1	 with an existing ⁺class of ⁺securities? If the additional securities or rank equally, please state: the date from which they d the extent to which they date for the next diventity (in the case of a distribution) or interest pays the extent to which they rank equally, other the relation to the next diventity distribution or interest pays Issue price or consideration Purpose of the issue (If issued as consideration for acquisition of assets, clearly is those assets) Dates of entering ⁺securities into uncertificated holdings or despatch of certificates Number and ⁺ class of all ⁺ securities quoted on ASX (<i>including</i> the	 with an existing *class of quoted *securities? If the additional securities do not rank equally, please state: the date from which they do the extent to which they participate for the next dividend, (in the case of a trust, distribution) or interest payment the extent to which they do not rank equally, other than in relation to the next dividend, distribution or interest payment Issue price or consideration Purpose of the issue (If issued as consideration for the acquisition of assets, clearly identify those assets) Dates of entering *securities into of certificated holdings or despatch of certificates Number and *class of all *securities and *class of all *securities in clause 2 if applicable) 22,153 	with an existing *class of quoted *securities? EXISTING SH. If the additional securities do not rank equally, please state: EXISTING SH. • the date from which they do • the extent to which they participate for the next dividend, (in the case of a trust, distribution) or interest payment EXISTING SH. • the extent to which they do not rank equally, other than in relation to the next dividend, distribution or interest payment EXISTING SH. Issue price or consideration TOTAL CONSOF CXSOA OF S4.08 (SEE ITE) Purpose of the issue (If issued as consideration for the acquisition of assets, clearly identify those assets) CONVERSION Dates of entering *securities into of certificated holdings or despatch of certificates ENTERED OCTOBENCE (ERTIFICATE ISSUE) Number and *class of all *securities quoted on ASX (including the Number

		Number	+Class
9	Number and ⁺ class of all ⁺ securities not quoted on ASX (<i>including</i> the securities in clause 2 if applicable)		ESOP AND AGM APPROVED OPTIONS EXPIRING AT VARIOUS DATES AND EXERCISABLE AT VARIOUS PRICES
10	Dividend policy (in the case of a	N/A	

10 Dividend policy (in the case of a trust, distribution policy) on the increased capital (interests)

Part 2 - Bonus issue or pro rata issue

11	Is security holder approval required?	N/A
12	Is the issue renounceable or non-renounceable?	N/A
13	Ratio in which the ⁺ securities will be offered	N/A
14	⁺ Class of ⁺ securities to which the offer relates	N/A
15	⁺ Record date to determine entitlements	N/A
16	Will holdings on different registers (or subregisters) be aggregated for calculating entitlements?	N/A
17	Policy for deciding entitlements in relation to fractions	N/A
18	Names of countries in which the entity has ⁺ security holders who will not be sent new issue documents	N/A
	Note: Security holders must be told how their entitlements are to be dealt with.	
	Cross reference: rule 7.7.	
19	Closing date for receipt of acceptances or renunciations	N/A

⁺ See chapter 19 for defined terms.

20	Names of any underwriters	N/A
21	Amount of any underwriting fee or commission	N/A
22	Names of any brokers to the issue	N/A
23	Fee or commission payable to the broker to the issue	N/A
24	Amount of any handling fee payable to brokers who lodge acceptances or renunciations on behalf of ⁺ security holders	N/A
25	If the issue is contingent on *security holders' approval, the date of the meeting	N/A
26	Date entitlement and acceptance form and prospectus or Product Disclosure Statement will be sent to persons entitled	N/A
27	If the entity has issued options, and the terms entitle option holders to participate on exercise, the date on which notices will be sent to option holders	N/A
28	Date rights trading will begin (if applicable)	N/A
29	Date rights trading will end (if applicable)	N/A
30	How do ⁺ security holders sell their entitlements <i>in full</i> through a broker?	N/A
31	How do ⁺ security holders sell <i>part</i> of their entitlements through a broker and accept for the balance?	N/A
32	How do ⁺ security holders dispose of their entitlements (except by sale through a broker)?	N/A
33	⁺ Despatch date	N/A

Part 3 - Quotation of securities

You need only complete this section if you are applying for quotation of securities

- 34 Type of securities (*tick one*)
- (a) Securities described in Part 1
 - All other securities

Example: restricted securities at the end of the escrowed period, partly paid securities that become fully paid, employee incentive share securities when restriction ends, securities issued on expiry or conversion of convertible securities

N/A

Entities that have ticked box 34(a)

Additional securities forming a new class of securities

Tick to indicate you are providing the information or documents

- 35 If the ⁺securities are ⁺equity securities, the names of the 20 largest holders of the additional ⁺securities, and the number and percentage of additional ⁺securities held by those holders
 - If the ⁺securities are ⁺equity securities, a distribution schedule of the additional ⁺securities setting out the number of holders in the categories
 - 1 1,000 1,001 - 5,000 5,001 - 10,000 10,001 - 100,000 100,001 and over

37

36

(b)

A copy of any trust deed for the additional +securities

Entities that have ticked box 34(b)

- 38 Number of securities for which ⁺quotation is sought
- 39 Class of +securities for which quotation is sought

⁺ See chapter 19 for defined terms.

40 Do the ⁺securities rank equally in all respects from the date of allotment with an existing ⁺class of quoted ⁺securities?

If the additional securities do not rank equally, please state:

- the date from which they do
- the extent to which they participate for the next dividend, (in the case of a trust, distribution) or interest payment
- the extent to which they do not rank equally, other than in relation to the next dividend, distribution or interest payment
- 41 Reason for request for quotation now

Example: In the case of restricted securities, end of restriction period

(if issued upon conversion of another security, clearly identify that other security)

42 Number and ⁺class of all ⁺securities quoted on ASX (*including* the securities in clause 38)

Number	+Class	

Quotation agreement

- ¹ ⁺Quotation of our additional ⁺securities is in ASX's absolute discretion. ASX may quote the ⁺securities on any conditions it decides.
- 2 We warrant the following to ASX.
 - The issue of the ⁺securities to be quoted complies with the law and is not for an illegal purpose.
 - There is no reason why those +securities should not be granted +quotation.
 - An offer of the ⁺securities for sale within 12 months after their issue will not require disclosure under section 707(3) or section 1012C(6) of the Corporations Act.

Note: An entity may need to obtain appropriate warranties from subscribers for the securities in order to be able to give this warranty

• Section 724 or section 1016E of the Corporations Act does not apply to any applications received by us in relation to any +securities to be quoted and

that no-one has any right to return any ⁺securities to be quoted under sections 737, 738 or 1016F of the Corporations Act at the time that we request that the ⁺securities be quoted.

- If we are a trust, we warrant that no person has the right to return the ⁺securities to be quoted under section 1019B of the Corporations Act at the time that we request that the ⁺securities be quoted.
- 3 We will indemnify ASX to the fullest extent permitted by law in respect of any claim, action or expense arising from or connected with any breach of the warranties in this agreement.
- 4 We give ASX the information and documents required by this form. If any information or document not available now, will give it to ASX before ⁺quotation of the ⁺securities begins. We acknowledge that ASX is relying on the information and documents. We warrant that they are (will be) true and complete.

Date: 2 November 2009

Print name: James Campbell, Company Secretary == == == == ==

⁺ See chapter 19 for defined terms.