29 August 2008

Produced and issued by: ABN AMRO Equities Australia Ltd

Clinuvel Pharmaceuticals

FY08 - stretching for the tape

CUV posted NPAT in line with our forecast. In FY09, CUV hopes to further progress its lead compound, afamelantoide, against a number of sun-related diseases, including PMLE. We believe cash flow from sales is likely sooner than most other biotechs.

Change of target price

Buy

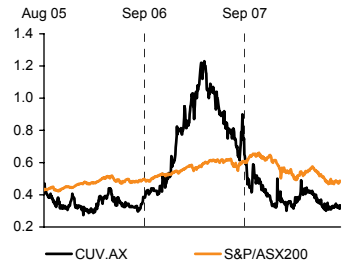
Target price
A$1.00 (from A$0.95)

Price
A$0.300

Short term (0-60 days)
n/a

Price performance

	(1M)	(3M)	(12M)
Price (A$)	0.32	0.40	0.79
Absolute %	-6.2	-25.0	-62.0
Rel market %	-7.0	-14.5	-53.1
Rel sector %	-10.0	-25.4	-59.1



Market capitalisation
A$90.71m (US$77.85m)

Average (12 mnth) daily turnover
A$0.18m (US$0.16m)

RIC: CUV.AX, CUV AU
Priced at close of business 29 Aug 2008.
Source: Bloomberg

Key forecasts

	FY07A	FY08A	FY09F	FY10F	FY11F
EBITDA (A$m)	-10.6	-17.1	-13.1 ▼	-4.79 ▼	4.22
Reported net profit (A$m)	-9.18	-14.7	-12.8	-4.13 ▲	3.42
Normalised net profit (A$m)[1]	-9.18	-13.6	-12.8	-4.13 ▲	3.42
Normalised EPS (c)[1]	-3.70	-4.51	-4.21	-1.36 ▲	1.13
Normalised EPS growth (%)	-46.2	21.9	-6.58	-67.6	n/a
Dividend per share (c)	0.00	0.00	0.00	0.00	0.00
Dividend yield (%)	0.00	0.00	0.00	0.00	0.00
Normalised PE (x)	n/m	n/m	n/m	n/m	26.6
EV/EBITDA (x)	n/m	n/m	n/m	n/m	18.0
Price/net oper. CF (x)	-9.10	-12.6	-8.09 ▲	-26.4 ▲	21.5 ▼
ROIC (%)	-148.4	-39.8	-37.5	-13.8	11.9

Use of ▲ ▼ indicates that the line item has changed by at least 5%. year to Jun, fully diluted
1. Pre non-recurring items and post preference dividends
Accounting Standard: IFRS
Source: Company data, ABN AMRO forecasts

FY08 result in line with forecasts

CUV posted normalised NPAT of -A$13.6m for FY08, in line with our forecast of -A$13.5m. The differences to our forecasts related to a lower-than-expected cash burn, but higher-than-expected interest expense. The net operating cash outflow was A$7.2m, compared to our forecast outflow of A$12.3m. CUV is well cashed-up (A$53.1m in cash and other current assets as at 30 June 2008) to fund its clinical programme. We have made no changes to our model assumptions in terms of take-up of afamelanotide in its major markets, and have maintained our rate of cash burn as CUV enters its clinical programme phase. Finally, we have updated future operating expenses in line with the FY08 result.

In FY09, CUV hopes to progress its lead compound afamelanotide

CUV aims to show its lead compound has efficacy against a number of sun-related diseases. Afamelanotide is a slow-release deposit of alpha-melanocyte-stimulating hormone (alpha-MSH) and induces melanogenesis, a process by which the skin's tanning cells (melanocytes) produce the skin's tanning pigment (melanin). Essentially, melanin has been shown to increase protection from the sun (photoprotection) and decrease the ageing effects of the sun (photoageing).

CUV's trials are relatively well advanced

CUV has two trials in Phase III. On an industry-wide basis, the chances of getting a product to market from the Phase III stage are in the order of 70%. As a result, we believe the odds that CUV will be able get afamelanotide to market are better than even. Hence, cash flow from sales is likely, and sooner than most other biotechnology companies, in our view.

Buy maintained, target price raised to A$1.00

As a result of our changes, our DCF valuation and target price have increased by 5.3% to A$1.00 (from A$0.95). Short-term catalysts include a completion of the current EU Phase III EPP trial. If successful, CUV would seek authority for afamelanotide in EPP - the final regulatory step before the start of sales.

Important disclosures can be found in the Disclosures Appendix.

Analysts

Dr David Stanton

Zara Lyons

Matthew Nicholas

ABN AMRO Equities Australia Ltd, ABN 84 002 768 701, AFS Licence 240530
Level 29, ABN AMRO Tower, 88 Phillip Street, Sydney NSW 2000, Australia

http://www.abnamroresearch.com

The result

CUV posted normalised NPAT of -A$13.6m for FY08, in line with our forecast of -A$13.5m. The differences to our forecasts related to a lower-than-expected cash burn, but higher-than-expected interest expense. The net operating cash outflow was A$7.2m, compared to our forecast outflow of A$12.3m. CUV is well cashed-up (A$53.1m in cash and other current assets as at 30 June 2008) to fund its clinical program. We have made no changes to our model assumptions in terms of take-up of afamelanotide in its major markets, and have maintained our rate of cash burn as CUV enters its clinical programme phase. Finally, we have updated future operating expenses in line with the FY08 result. The changes to our forecasts are shown below.

Table 1 : CUV – Changes to forecasts

	FY08F			FY09F			FY10F		
	Fcast	Actual	Diff	Prev	Rev	Diff	Prev	Rev	Diff
EBIT (A$m)	-16.3	-17.9	10.0%	-13.2	-14.0	6.0%	-4.9	-4.9	-0.5%
NPAT (A$m)	-13.5	-13.6	0.6%	-12.2	-12.8	4.3%	-4.4	-4.1	5.3%
EPS (c)	-4.5	-4.5	0.5%	-4.0	-4.2	3.9%	-1.4	-1.4	5.6%
DPS (c)	0.0	0.0	nm	0.0	0.0	nm	0.0	0.0	nm
Net op cash flow (A$m)	-12.3	-7.2	-41.4%	-10.8	-11.2	3.8%	-2.8	-3.4	-22.4%

Source: ABN AMRO

What is afamelanotide?

CUV aims to show its lead compound, afamelanotide, has efficacy against a number of sun-related diseases. Afamelanotide is administered via an injection under the skin of a slow-release deposit of alpha-melanocyte-stimulating hormone (alpha-MSH) and induces melanogenesis, a process by which the skin's tanning cells (melanocytes) produce the skin's tanning pigment (melanin). Essentially, melanin has been shown to increase protection from the sun (photoprotection) and decrease the ageing effects of the sun (photoageing).

Afamelanotide is administered underneath the skin as an injectable, fully dissolvable implant, about the size of a grain of rice. The implant releases slowly over 10-15 days, releasing a supply of afamelanotide into the body. In the current implant, we believe that over a 10-day period a total of 16mg of afamelanotide is administered via the subcutaneous implant.

Key takeaways

- **CUV's trials are relatively advanced** – CUV has two trials in Phase III. On an industry-wide basis, the chances of getting a product to market from the Phase III stage are in the order of 70%. As a result, we believe the odds that CUV will be able get afamelanotide to market are better than even. Hence, cash flow from sales is likely, and sooner than most other biotechnology companies.
- **Afamelanotide continues to receive ODD** – CUV has previously announced that its photoprotective drug afamelanotide (previously known as CUV1647) has been granted orphan-drug designation (ODD) by the US FDA for the treatment of erythropoietic porphyrias (EP). There are essentially two erythropoietic porphyrias: 1) Erythropoietic Protoporphyria (EPP) - absolute sun allergy; and 2) Congenital Erythropoietic Porphyria (CEP) - a congenital form of absolute sun allergy. This gives the FDA the right to utilise afamelanotide in the management of erythropoietic porphyrias, which affect less than 200,000 patients in the US. In the US, an orphan drug is any drug developed under the Orphan Drug Act (ODA) of January 1983, a federal law concerning rare diseases ('orphan diseases'), defined as diseases affecting fewer than 200,000 people in the US, or low prevalence, taken as prevalence of less than five per 10,000 in the community. Because medical research and the development of drugs to treat such diseases is financially disadvantageous, companies that do so are rewarded with tax reductions and marketing exclusivity on that drug for an extended time (seven years post-approval). The concept behind the ODA is that the longer period of exclusivity will encourage more companies to invest money in research. Should afamelanotide prove advantageous in the treatment of EPP, CUV will receive seven years of marketing exclusivity for its product to treat this disease.
- **Free potential upside from other clinical trials** – In developing our valuation for CUV, we have not included any valuation of CUV's development of a product to treat other sun-related

disorders. CUV's afamelanotide has been shown to result in significant improvement in a number of sun-related disorders.

- **Strong levels of cash** – CUV has a cash and other assets position of A$53.1m. We believe CUV has potentially valuable opportunities and believe it unlikely, given current levels of cash, that CUV will need to raise equity to progress its trials. In FY09, we forecast that cash burn will be cA$1.0m per month (=A$11.7m pa) as CUV enters clinical trials for its afamelanotide product.

Buy maintained; price target raised to A$1.00

As a result of our changes, our DCF valuation and target price have increased by 5.3% to A$1.00 (from A$0.95). Upside risks include the faster-than-expected progression to production of CUV's photoprotective technology, while downside risks include any delay or failure to progress clinical trials. On an industry-wide basis, the chances of getting a product to market from the Phase III stage are in the order of 70%. As a result, we believe the odds that CUV will be able get afamelanotide to market are better than even. In our view, CUV management will need to balance the use of funds to progress a number of projects through regulatory pathways against the increased cash flow that this would entail. Hence, we believe CUV is an opportunity for investors with a higher risk appetite.

Chart 1 : Timeline and probability of CUV's opportunities for afamelanotide

Trial stage	Preclinical	Investigational New Drug application	Phase II trials	Clinical III trials
General time until cashflow	7 years+	5-7 years	3-5 years	1-2 years
General probability of product getting to market	c10%	c20%	c30%	c70%
Cost of trials	cA$1m	cA$2-3m	cA$10m	cA$50m
MSB products - indications and stages of development				
Polymorphous light eruption (PMLE) trial	→	→	→	→
Erythropoietic porphyria (EPP) trial	→	→	→	→
Skin cancer trial - all cancers apart from melanoma	→	→	→	
Solar urticaria (SU) trial	→	→	→	
Light sensitivity associated with cancer treatment	→	→	→	

Source: ABN AMRO estimates, company data

Changes to forecasts

We have made no changes to our model assumptions in terms of take-up of afamelanotide in its major markets.

- **Rate of cash burn** – We have maintained our rate of cash burn as CUV enters its clinical programme phase. In FY09, we forecast that cash burn will be cA$1.0m per month (=A$11.7m per year), as CUV enters clinical trials for its afamelanotide product. This clinical programme continues into FY10;
- **Operating expenses** – We have updated our forecast future operating expenses in line with the FY08 result;
- **Forecast period** – We have rolled forward our 10-year forecast period; and,
- **Net interest expense** – This has been adjusted for balances at the end of period.

Our market forecasts

- **Market size in FY10** – We forecast the potential population market size for PMLE will be 130m in FY10. Assuming a 1% penetration rate and wholesale price per implant of US$350, we estimate the potential economic market size at US$227m in FY10.
- **Probability of getting to market** – We believe there is a 70% chance of afamelanotide getting to market. This probability is likely to increase as CUV progresses through Phase III clinical trials. We believe CUV is unlikely to begin realising revenue until FY10.
- **Royalty assumptions** – For its PMLE opportunity, we forecast CUV will decide to enter into an agreement with a larger pharmaceutical partner to carry out marketing and distribution. We expect CUV to agree to a royalty from sales of the finished product, including an upfront payment and, on that basis, assume CUV will receive a 10% royalty rate on sales of afamelanotide. This is in line with royalty rates that, from our research, have been negotiated recently between biotech companies and global pharmaceutical companies. For its EPP opportunity, we believe initially CUV is likely to sell is product directly to patients, as the market opportunity is much smaller.
- **CUV market share** – Our analysis suggests CUV is likely to be the first player in this market

for some time. Hence, we assume CUV's market share will be high initially, at 50% of the available market. We believe the major competition to CUV's product is likely to come from Magen BioSciences, a privately owned biotechnology company focused on skin diseases.

- **Selling price** – We assume an initial selling price of US$350 per implant and that this will decline by 2% pa. At present, the average reimbursement per depot injection is about US$175 (not designed for skin cancer). However, these injections have been on the market for an average of six years, and therefore we believe afamelanotide will be able to command a price premium.
- **Gross profit margin assumptions** – In line with most pharmaceutical companies, we assume CUV achieves a steady-state gross profit margin of 70%.

CUV – financial summary

Year to 30 Jun (A$m)	AIFRS	AIFRS	AIFRS	AIFRS	AIFRS
Income statement	**2007A**	**2008A**	**2009F**	**2010F**	**2011F**
Divisional sales	0.0	0.0	0.0	12.2	25.3
Total revenue	0.3	0.0	0.5	12.7	26.0
EBITDA	-10.6	-17.1	-13.1	-4.8	4.2
Associate income	0.0	0.0	0.0	0.0	0.0
Depreciation/Amortisation	-0.8	-0.8	-0.9	-0.1	-0.1
EBITA	-11.4	-17.9	-14.0	-4.9	4.1
Goodwill Amortisation	0.0	0.0	0.0	0.0	0.0
EBIT	-11.4	-17.9	-14.0	-4.9	4.1
EBIT(incl associate profit)	-11.4	-17.9	-14.0	-4.9	4.1
Net interest expense	2.2	4.3	1.2	0.8	0.8
Pre-tax profit	-9.2	-13.6	-12.8	-4.1	4.9
Income tax expense	0.0	0.0	0.0	0.0	-1.5
After-tax profit	-9.2	-13.6	-12.8	-4.1	3.4
Minority interests	0.0	0.0	0.0	0.0	0.0
NPAT pre significant items	-9.2	-13.6	-12.8	-4.1	3.4
Significant items	0.0	-1.0	0.0	0.0	0.0
Reported NPAT	-9.2	-14.7	-12.8	-4.1	3.4
Cash flow statement	**2007A**	**2008A**	**2009F**	**2010F**	**2011F**
EBITDA	-10.6	-17.1	-13.1	-4.8	4.2
Change in working capital	0.0	0.0	0.6	0.6	0.7
Net interest (pd)/rec	2.0	4.0	1.2	0.8	0.8
Taxes paid	0.4	0.3	0.0	0.0	-1.5
Other oper cash items	0.0	5.6	0.0	0.0	0.0
Cash flow from ops (1)	-8.2	-7.2	-11.2	-3.4	4.2
Capex (2)	-0.2	-0.2	-0.2	-0.2	-0.2
Disposals/(acquisitions)	-26.7	-0.5	0.0	0.0	0.0
Other investing cash flow	0.4	0.0	0.0	0.0	0.0
Cash flow from invest (3)	-26.5	-0.7	-0.2	-0.2	-0.2
Incr/(decr) in equity	60.0	0.0	0.0	0.0	0.0
Incr/(decr) in debt	0.0	0.0	0.0	0.0	0.0
Ordinary dividend paid	0.0	0.0	0.0	0.0	0.0
Preferred dividends (4)	0.0	0.0	0.0	0.0	0.0
Other financing cash flow	0.0	0.0	0.0	0.0	0.0
Cash flow from fin (5)	60.0	0.0	0.0	0.0	0.0
Forex and disc ops (6)	0.0	0.0	0.0	0.0	0.0
Inc/(decr) cash (1+3+5+6)	25.4	-7.9	-11.4	-3.6	4.0
Equity FCF (1+2+4)	-8.4	-7.4	-11.4	-3.6	4.0
Balance sheet	**2007A**	**2008A**	**2009F**	**2010F**	**2011F**
Cash & deposits	33.8	25.8	14.3	10.7	14.7
Trade debtors	0.2	0.6	0.3	0.4	0.5
Inventory	0.0	0.0	0.0	0.0	0.0
Investments	0.0	0.0	0.0	0.0	0.0
Goodwill	0.0	0.0	0.0	0.0	0.0
Other intangible assets	2.2	1.4	0.6	0.6	0.6
Fixed assets	0.3	0.4	0.5	0.6	0.7
Other assets	31.2	26.8	26.8	26.8	26.8
Total assets	67.8	55.0	42.6	39.1	43.3
Short-term borrowings	0.0	0.0	0.0	0.0	0.0
Trade payables	2.3	3.0	3.3	4.0	4.8
Long-term borrowings	0.0	0.0	0.0	0.0	0.0
Provisions	0.0	0.0	0.0	0.0	0.0
Other liabilities	0.1	0.2	0.2	0.2	0.2
Total liabilities	2.4	3.2	3.5	4.2	5.0
Preference shares					
Hybrid equity					
Share capital	112.8	113.2	113.2	113.2	113.2
Other reserves	1.6	1.8	1.8	1.8	1.8
Retained earnings	-49.1	-63.2	-75.9	-80.1	-76.6
Other equity	0.0	0.0	0.0	0.0	0.0
Total equity	65.4	51.8	39.1	34.9	38.3
Minority interest	0.0	0.0	0.0	0.0	0.0
Total shareholders' equity	65.4	51.8	39.1	34.9	38.3
Total liabilities & SE	67.8	55.0	42.6	39.1	43.3

Closing price (A$)	**0.30**	**Price target (A$)**	**1.00**
Valuation metrics			
Preferred methodology	DCF	Val'n (A$)	$ 1.00
DCF valuation inputs			
Rf	6.50%	10-year rate	6.50%
Rm-Rf	4.50%	Margin	2.0%
Beta	1.50	Kd	8.50%
CAPM (Rf+Beta(Rm-Rf))	13.3%	Ke	13.2%
E/EV*Ke+D/EV*Kd(1-t)		NPV cash flow (A$m)	276.7
Equity (E/EV)	100.0%	Minority interest (A$m)	0.0
Debt (D/EV)	0.0%	Net debt (A$m)	-25.8
Interest rate	8.50%	Investments (A$m)	0.0
Tax rate (t)	30.0%	Equity market value (A$m)	302.4
WACC	13.2%	Diluted no. of shares (m)	303.1
		DCF valuation (A$)	**1.00**

Multiples	**2008A**	**2009F**	**2010F**	**2011F**
Enterprise value (A$m)	71.0	82.4	86.1	82.0
EV/Sales (x)			7.1	3.2
EV/EBITDA (x)	n/a	n/a	n/a	19.4
EV/EBIT (x)	n/a	n/a	n/a	19.9
PE (normalised) (x)	n/a	n/a	n/a	28.4
PEG (normalised) (x)				

At target price	**2008A**	**2009F**	**2010F**	**2011F**
EV/EBITDA (x)	n/a	n/a	n/a	68.1
PE (normalised) (x)	n/a	n/a	n/a	88.6

Comparable company data (x)		**2009F**	**2010F**	**2011F**
Alchemia	EV/EBITDA	-4.0	7.2	1.3
Year to 30 Jun	EV/EBIT	-3.5	10.8	1.4
	PE	-4.4	5.7	0.8
	PEG	-1.3	1.6	0.2
Mesoblast	EV/EBITDA	-13.7	-11.9	15.6
Year to 30 Jun	EV/EBIT	-13.4	-11.7	19.5
	PE	-15.2	-16.3	55.6
	PEG			

Per share data	**2008A**	**2009F**	**2010F**	**2011F**
No. shares	303.1	303.1	303.1	303.1
EPS (cps)	-4.8	-4.2	-1.4	1.1
EPS (normalised) (c)	-4.5	-4.2	-1.4	1.1
Dividend per share (c)	0.0	0.0	0.0	0.0
Dividend payout ratio (%)	0.0	0.0	0.0	0.0
Dividend yield (%)	0.0	0.0	0.0	0.0

Growth ratios	**2008A**	**2009F**	**2010F**	**2011F**
Sales growth	na	na	na	107.9%
Operating cost growth	61.3%	-23.4%	29.8%	24.4%
EBITDA growth	61.3%	-23.4%	-63.4%	^MISSING
EBIT growth	57.0%	-22.1%	-65.0%	^MISSING
Norm. NPAT growth	48.5%	-6.3%	-67.6%	-182.7%
Norm. EPS growth	21.9%	-6.6%	-67.6%	^MISSING

Operating performance	**2008A**	**2009F**	**2010F**	**2011F**
Asset turnover (%)	0.0	0.0	7.5	15.4
EBITDA margin (%)	na	na	-39.3	16.7
EBIT margin (%)	na	na	-40.1	16.3
Net profit margin (%)	na	na	-33.9	13.5
Return on net assets (%)	-34.6	-35.8	-14.0	10.8
Net debt (A$m)	-25.8	-14.3	-10.7	-14.7
Net debt/equity (%)	-49.7	-36.7	-30.6	-38.4
Net interest/EBIT cover (x)	4.2	11.6	6.5	-5.4
ROIC (%)	-39.8	-37.5	-13.8	11.9

Internal liquidity	**2008A**	**2009F**	**2010F**	**2011F**
Current ratio (x)	16.9	11.8	9.1	8.4
Receivables turnover (x)	na	0.0	31.9	55.2
Payables turnover (x)	na	4.2	4.6	4.8

Source: ABN AMRO estimates, company data

Recommendation structure

Absolute performance, short term (trading) recommendation: A Trading Buy recommendation implies upside of 5% or more and a Trading Sell indicates downside of 5% or more. The trading recommendation time horizon is 0-60 days. For Australian coverage, a Trading Buy recommendation implies upside of 5% or more from the suggested entry price range, and a Trading Sell recommendation implies downside of 5% or more from the suggested entry price range. The trading recommendation time horizon is 0-60 days.

Absolute performance, long term (fundamental) recommendation: The recommendation is based on implied upside/downside for the stock from the target price. A Buy/Sell implies upside/downside of 10% or more and a Hold less than 10%. For UK Small/Mid-Cap Analysis a Buy/Sell implies upside/downside of 10% or more, an Add/Reduce 5-10% and a Hold less than 5%. For UK-based Investment Funds research the recommendation structure is not based on upside/downside to the target price. Rather it is the subjective view of the analyst based on an assessment of the resources and track record of the fund management company. For listed property trusts (LPT) or real estate investment trusts (REIT) the recommendation is based upon the target price plus the dividend yield, ie total return.

Performance parameters and horizon: Given the volatility of share prices and our pre-disposition not to change recommendations frequently, these performance parameters should be interpreted flexibly. Performance in this context only reflects capital appreciation and the horizon is 12 months. Sector relative to market: The sector view relative to the market is the responsibility of the strategy team. Overweight/Underweight implies upside/downside of 10% or more and Neutral implies less than 10% upside/downside. Target price: The target price is the level the stock should currently trade at if the market were to accept the analyst's view of the stock and if the necessary catalysts were in place to effect this change in perception within the performance horizon. In this way, therefore, the target price abstracts from the need to take a view on the market or sector. If it is felt that the catalysts are not fully in place to effect a re-rating of the stock to its warranted value, the target price will differ from 'fair' value.

Distribution of recommendations

The tables below show the distribution of ABN AMRO's recommendations (both long term and trading). The first column displays the distribution of recommendations globally and the second column shows the distribution for the region. Numbers in brackets show the percentage for each category where ABN AMRO has an investment banking relationship.

Long Term recommendations (as at 29 Aug 2008)

	Global total (IB%)	Asia Pacific total (IB%)
Buy	527 (4)	369 (0)
Add	0 (0)	0 (0)
Hold	367 (2)	216 (0)
Reduce	0 (0)	0 (0)
Sell	95 (0)	57 (0)
Total (IB%)	989 (3)	642 (0)

Source: ABN AMRO

Trading recommendations (as at 29 Aug 2008)

	Global total (IB%)	Asia Pacific total (IB%)
Trading Buy	4 (0)	4 (0)
Trading Sell	1 (0)	1 (0)
Total (IB%)	5 (0)	5 (0)

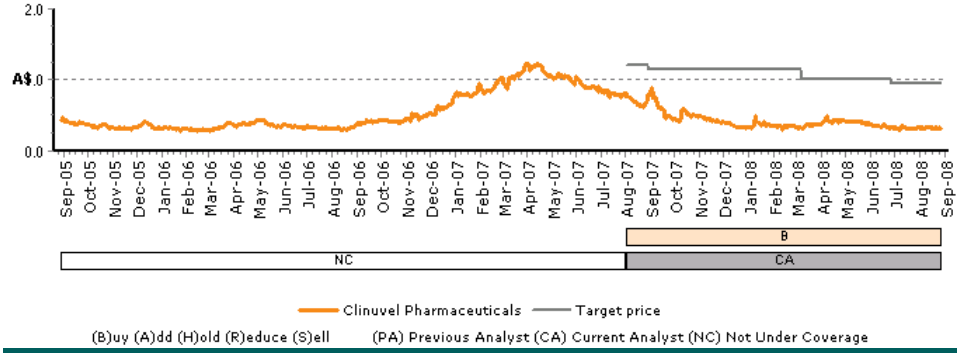
Source: ABN AMRO

Valuation and risks to target price

Clinuvel Pharmaceuticals (RIC: CUV.AX, Rec: Buy, CP: A$0.300, TP: A$1.000): Our valuation of CUV is based on a discounted cash flow model, from which we derive our target price. Upside risks include the faster-than-expected progression to production of CUV's photoprotective technology, while downside risks include any delay or failure to progress clinical trials.

Clinuvel Pharmaceuticals coverage data

Stock performance, recommendations and coverage (as at 28 Aug 2008)



Dr David Stanton started covering this stock on 2 Aug 07
New recommendation structure from 7 November 2005
Source: ABN AMRO

Trading recommendation history (as at 29 Aug 2008)

Date	Rec	Analyst
	n/a	

Source: ABN AMRO

Regulatory disclosures

Subject companies: **CUV.AX**

Global disclaimer

This material was prepared by the ABN AMRO affiliate named on the cover or inside cover page. It is provided for informational purposes only and does not constitute an offer to sell or a solicitation to buy any security or other financial instrument. While based on information believed to be reliable, no guarantee is given that it is accurate or complete. While we endeavour to update on a reasonable basis the information and opinions contained herein, there may be regulatory, compliance or other reasons that prevent us from doing so. The opinions, forecasts, assumptions, estimates, derived valuations and target price(s) contained in this material are as of the date indicated and are subject to change at any time without prior notice. The investments referred to may not be suitable for the specific investment objectives, financial situation or individual needs of recipients and should not be relied upon in substitution for the exercise of independent judgement. The stated price of any securities mentioned herein is as of the date indicated and is not a representation that any transaction can be effected at this price. Neither ABN AMRO nor other persons shall be liable for any direct, indirect, special, incidental, consequential, punitive or exemplary damages, including lost profits arising in any way from the information contained in this material. This material is for the use of intended recipients only and the contents may not be reproduced, redistributed, or copied in whole or in part for any purpose without ABN AMRO's prior express consent. In any jurisdiction in which distribution to private/retail customers would require registration or licensing of the distributor which the distributor does not currently have, this document is intended solely for distribution to professional and institutional investors.

Australia: Any report referring to equity securities is distributed in Australia by ABN AMRO Equities Australia Ltd (ABN 84 002 768 701, AFS Licence 240530), a participant of the ASX Group. Any report referring to fixed income securities is distributed in Australia by ABN AMRO Bank NV (Australia Branch) (ABN 84 079 478 612, AFS Licence 238266). Australian investors should note that this document was prepared for wholesale investors only.

Brazil: This document was not elaborated by securities analysts registered at ComissÆo de Valores Mobili rios - CVM. Investors resident in Brazil who receive this report should rely only on research prepared by research analysts registered at CVM. In addition to other representations contained in this report, research analysts who prepared this report state that the views expressed and attributed to them accurately reflect solely and exclusively their personal opinions about the subject securities and issuers and/or other subject matter as appropriate, having such opinion(s) been produced freely and independently from any party, including from The Royal Bank of Scotland or any of its affiliates.

Canada: The securities mentioned in this material are available only in accordance with applicable securities laws and many not be eligible for sale in all jurisdictions. Persons in Canada requiring further information should contact their own advisors.

EEA: This material constitutes "investment research" for the purposes of the Markets in Financial Instruments Directive and as such contains an objective or independent explanation of the matters contained in the material. Any recommendations contained in this document must not be relied upon as investment advice based on the recipient's personal circumstances. In the event that further clarification is required on the words or phrases used in this material, the recipient is strongly recommended to seek independent legal or financial advice.

Denmark: ABN AMRO Bank N.V. is authorised and regulated in the Netherlands by De Nederlandsche Bank. In addition, ABN AMRO Bank N.V., Copenhagen Branch is subject to local supervision by Finanstilsynet, the Danish Financial Supervisory Authority. All analysts located in Denmark follow the recommendations from the Danish Securities Dealers Association.

Finland: ABN AMRO Bank N.V. is authorised and regulated in the Netherlands by De Nederlandsche Bank. In addition, ABN AMRO Bank N.V., Helsinki Branch is subject to local supervision by Rahoitustarkastus, the Finnish Financial Supervision Authority.

Hong Kong: This document is being distributed in Hong Kong by, and is attributable to, ABN AMRO Asia Limited which is regulated by the Securities and Futures Commission of Hong Kong.

India: Shares traded on stock exchanges within the Republic of India may only be purchased by different categories of resident Indian investors, Foreign Institutional Investors registered with The Securities and Exchange Board of India ("SEBI") or individuals of Indian national origin resident outside India called Non Resident Indians ("NRIs") and Overseas Corporate Bodies ("OCBs"), predominantly owned by such persons or Persons of Indian Origin (PIO). Any recipient of this document wanting additional information or to effect any transaction in Indian securities or financial instrument mentioned herein must do so by contacting a representative of ABN AMRO Asia Equities (India) Limited.

Italy: Persons in Italy requiring further information should contact ABN AMRO Bank N.V. Milan Branch.

Japan: This report is being distributed in Japan by ABN AMRO Securities Japan Ltd to institutional investors only.

Malaysia: ABN AMRO research, except for economics and FX research, is not for distribution or transmission into Malaysia.

New Zealand: This document is distributed in New Zealand to institutional investors by ABN AMRO Securities NZ Limited, an NZX accredited firm, and to retail investors by ABN AMRO Craigs Limited, an NZX accredited firm. ABN AMRO Craigs Limited and/or its partners and employees may, from time to time, have a financial interest in respect of some or all of the matters discussed.

Russia: The Russian securities market is associated with several substantial risks, legal, economic and political, and high volatility. There is a relatively high measure of legal uncertainty concerning rights, duties and legal remedies in the Russian Federation. Russian laws and regulations governing investments in securities markets may not be sufficiently developed or may be subject to inconsistent or arbitrary interpretation or application. Russian securities are often not issued in physical form and registration of ownership may not be subject to a centralised system. Registration of ownership of certain types of securities may not be subject to standardised procedures and may even be effected on an ad hoc basis. The value of investments in Russian securities may be affected by fluctuations in available currency rates and exchange control regulations.

Singapore: Any report referring to equity securities is distributed in Singapore by ABN AMRO Asia Securities (Singapore) Pte Limited (RCB Regn No. 198703346M) to clients who fall within the description of persons in Regulation 49 of the Securities and Futures (Licensing and Conduct of Business) Regulations and Regulations 34 and 35 of the Financial Advisers Regulations. Any report referring to non-equity securities is distributed in Singapore by ABN AMRO Bank NV (Singapore Branch) Limited to clients who fall within the description of persons in Regulations 34 and 35 of the Financial Advisers Regulations. Investors should note that this material was prepared for accredited investors only. Recipients who do not fall within the description of persons under Regulation 49 of the Securities and Futures (Licensing and Conduct of Business) Regulations or Regulations 34 and 35 of the Financial Advisers Regulations should seek the advice of their independent financial advisor prior to taking any investment decision based on this document or for any necessary explanation of its contents.

Sweden: ABN AMRO Bank N.V. is authorised and regulated in the Netherlands by De Nederlandsche Bank. In addition, ABN AMRO Bank N.V., Stockholm Branch is subject to local supervision by the Swedish Financial Supervisory Authority.

Thailand: Pursuant to an agreement with Asia Plus Securities Public Company Limited (APS), reports on Thai securities published out of Thailand are prepared by APS but distributed outside Thailand by ABN AMRO Bank NV and affiliated companies. Responsibility for the views and accuracy expressed in such documents belongs to APS.

United Kingdom: All research is distributed by ABN AMRO Bank NV, London Branch, which is authorised by De Nederlandsche Bank and regulated by the Financial Services Authority for the conduct of UK business. The investments and services contained herein are not available to private customers in the United Kingdom.

UAE and Qatar: This report is produced by ABN AMRO N.V and is being distributed to professional and institutional investors only in the United Arab Emirates and Qatar in accordance with the regulatory requirements governing the distribution of investment research in these jurisdictions.

United States: Except for any documents relating to foreign exchange, FX or global FX, distribution of this document in the United States or to US persons is intended to be solely to major institutional investors as defined in Rule 15a-6(a)(2) under the US Securities Act of 1934. All US persons that receive this document by their acceptance thereof represent and agree that they are a major institutional investor and understand the risks involved in executing transactions in securities. Any US recipient of this document wanting additional information or to effect any transaction in any security or financial instrument mentioned herein, must do so by contacting a registered representative of ABN AMRO Incorporated, 101 Park Avenue, New York, N.Y. 10178, US, tel + 1 212 401 3200.

- Material means all research information contained in any form including but not limited to hard copy, electronic form, presentations, e-mail, SMS or WAP.

The Royal Bank of Scotland plc is authorised and regulated in the UK by the Financial Services Authority.

The research analyst or analysts responsible for the content of this research report certify that: (1) the views expressed and attributed to the research analyst or analysts in the research report accurately reflect their personal opinion(s) about the subject securities and issuers and/or other subject matter as appropriate; and, (2) no part of his or her compensation was, is or will be directly or indirectly related to the specific recommendations or views contained in this research report. On a general basis, the efficacy of recommendations is a factor in the performance appraisals of analysts.

For a discussion of the valuation methodologies used to derive our price targets and the risks that could impede their achievement, please refer to our latest published research on those stocks at www.abnamroresearch.com.

Disclosures regarding companies covered by ABN AMRO group can be found on ABN AMRO's research website at www.abnamroresearch.com.

ABN AMRO's policy on managing research conflicts of interest can be found at https://www.abnamroresearch.com/Disclosure/Disclosure.AspX?MI=5.

Should you require additional information please contact the relevant ABN AMRO research team or the author(s) of this report.