

Fairness Opinion

delivered to the Board of Directors of Berna Biotech SA

Assessment of the fairness, from a financial viewpoint, of Crucell N.V.'s tender offer on Berna Biotech SA's publicly traded shares.

Geneva, November 30, 2005

Glossary

Aerugen	Vaccine for cystic fibrosis patients
Berna Biotech	Berna Biotech SA, including its subsidiaries and associates
Berna Biotech share(s)	Registered share(s) of Berna Biotech SA with a par value of CHF 0.4
CAPM	Capital Asset Pricing Model
CHF	Swiss francs
Crucell	Crucell N.V.
D	Interest bearing financial debt
DCF	Discounted Cash Flow
EBIT	Earnings Before Interest and Tax; operating results
EBITDA	Earnings Before Interest, Tax, Depreciation and Amortization
Epaxal	Hepatitis A vaccine
ETEC	Traveller's diarrhea vaccine
EUR	Euro
Hepavax-Gene	Hepatitis B vaccine
Inflexal V	Virosomal influenza vaccine
Mio.	Million
p.a.	Per annum
Penta	DTPw-HepB-Hib: vaccines against diphtheria, tetanus, pertussis (whooping cough), hepatitis B and haemophilus influenzae type B (meningitis).
Profit contribution	Gross margin reduced by R&D costs specific to the product concerned
PwC	PricewaterhouseCoopers SA
Risk-adjusted	Taking into consideration the probability of success
R&D	Research and development
Rhein Biotech	Rhein Biotech BV
RSV Flu	Combined vaccine against influenza
Vivotif	Vaccine for oral immunization against typhoid fever
WACC	Weighted Average Cost of Capital

Table of Contents

Glossary	2
1 Introduction	4
1.1 Background	4
1.2 Scope of the Mandate Granted by the Board of Directors of Berna Biotech	4
1.3 Sources of Information	4
2 Berna Biotech's Activity	6
2.1 Presentation of the Company	6
2.2 Products	7
2.3 Joint-Venture	7
3 Valuation of Berna Biotech	8
3.1 Valuation Methods	8
3.2 Risk-Adjusted Discounted Cash Flow Method	8
3.3 Discount Rate	9
3.4 Market Approach	10
4 Considerations on the Value of Berna Biotech	11
4.1 Risk-adjusted DCF Method	11
4.2 Market Approach	11
5 Berna Biotech Share Prices and Volume Analysis	13
6 Considerations on the Value of Crucell	14
6.1 Presentation of the Company	14
6.2 Considerations on the Value of Crucell	14
6.3 Analysis of the potential dilutive effects of the transaction for Berna Biotech's shareholders	15
7 Conclusion	16
8 Appendices	17
8.1 Appendix 1: Beta and Capital Structure Analysis	17
8.2 Appendix 2: Multiples of Comparable Quoted Companies	18

1 Introduction

1.1 Background

Berna Biotech SA (« Berna Biotech » or the « Company ») is headquartered in Bern and is quoted on the Swiss stock exchange SWX. The Company is specialized in research, production and distribution of vaccines against human infections in the following areas: respiratory, travel, paediatric and hepatitis B vaccines.

The Board of Directors of Crucell NV (« Crucell »), a Dutch Biotech company specialized in the development and manufacturing of products for preventing and treating infectious diseases, has made an offer to the Board of Directors of Berna Biotech to take over its entire share capital.

Crucell's offer consists in an all share offer for the entire issued share capital of Berna Biotech at an exchange ratio of 0.447 shares of Crucell for each Berna Biotech share. The offer values each Berna Biotech share at CHF 15.72 based on the closing price of Crucell share on the day before the announcement of the offer (November 30, 2005). This exchange ratio results from discussions and negotiations between the Boards of Directors of both Berna Biotech and Crucell.

1.2 Scope of the Mandate Granted by the Board of Directors of Berna Biotech

PricewaterhouseCoopers (« PwC ») has been mandated by the Board of Directors of Berna Biotech to establish a report (« Fairness Opinion ») assessing the fairness, from a financial point of view, of Crucell's above-described tender offer.

As independent advice, the Fairness Opinion is aimed at giving to the Board of Directors and the shareholders of Berna Biotech the assurance that the exchange ratio of 0.447 shares of Crucell for each Berna Biotech share and the price offered of CHF 15.72 per share is fair and appropriate from a financial standpoint. Our mandate did not include the analysis of the expected synergies from the transaction. This Fairness Opinion may be released to the public.

This report does not represent a recommendation to accept or refuse the tender offer. It does not contain either any assessment of the consequences that could arise from accepting or refusing such offer.

1.3 Sources of Information

For the purpose of providing our opinion, we have based ourselves on the following data:

- Various public information concerning Berna Biotech, which was deemed relevant for this analysis, including annual and semi-annual reports, press releases and newspaper articles on the Company.
- Various non-public information concerning Berna Biotech which was deemed relevant for this analysis, including the 2006-2010 business plan. We also had access to miscellaneous information relative to the actual negotiations with Crucell. In addition, we had access to the data room of Berna Biotech.
- Various financial information and capital market data relating to comparable quoted companies.

- PwC also reviewed the reasonableness of financial and operational information, including Berna Biotech's budget and forecast, and discussed these with members of the Company's management team.
- Historical data of comparable transactions, involving companies active in the vaccines industry, using essentially the databases of Mergermarket and of M&A Dealogic.
- Pictet & Cie's capital market analyses (« The Performance of Shares and Bonds in Switzerland (1926-2004, 2005 ») and Ibbotson Associates' report (2005 Yearbook).
- Historical stock prices and trading volumes of Berna Biotech's shares, essentially using the databases of Bloomberg.
- Historical stock prices and trading volumes of Crucell's shares, essentially using the databases of Bloomberg.
- Various public information concerning Crucell, which was deemed relevant for this analysis, including analysts' reports, press releases and newspaper articles on the company.

The information and thoughts contained in this report are based on information available at the date of our work and can be subject to changes. In rendering this opinion, PwC has not performed an audit or a due diligence. PwC has not sought to verify neither the information provided by Berna Biotech, nor the publicly available information and has relied on them as being complete and accurate.

2 Berna Biotech's Activity

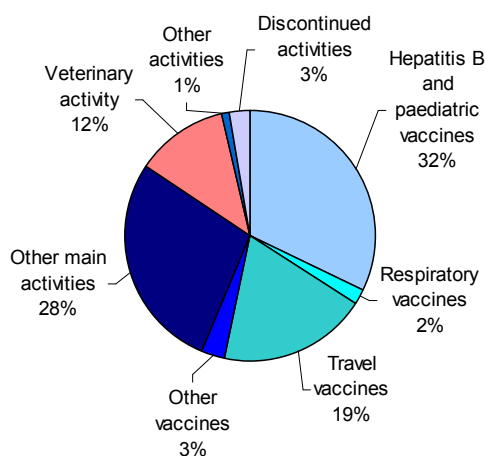
2.1 Presentation of the Company

Berna Biotech was founded in 1898 in Bern, then named the Swiss Serum and Vaccine Institute. In 2001, the Company completed its initial public offering on the Swiss stock exchange, SWX. In 2002, it acquired the vaccines company, listed on the Frankfurt stock exchange, Rhein Biotech NV (« Rhein Biotech »). Since April 1, 2003, Berna Biotech's investment in Rhein Biotech amounts to 92.70%. Rhein Vaccines BV, a subsidiary of Rhein Biotech, acquired the remaining 20% in its Korean subsidiary, Green Cross Vaccine Co., on November 3, 2004. Activities in Korea have since focused on the worldwide distribution of hepatitis B and combined vaccines.

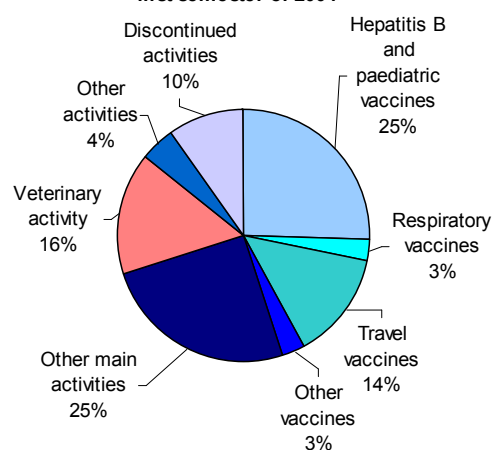
Berna Biotech currently employs approximately 800 people throughout its subsidiaries in Europe, Argentina and Korea. In the first semester of 2005, 52% of the sales originated from Europe, 20% from Asia and 28% from the rest of the world.

The Company is specialized in research, production and distribution of vaccines against human infections in the following areas: respiratory, travel, paediatric and hepatitis B vaccines. Berna Biotech's main activities also include the contract manufacturing of certain biological products for other companies in the vaccines industry, such as Wyeth and Chiron. In the veterinary sector, the Company researches, develops, manufactures and distributes pharmaceutical products for animals. The sales segmentation by type of activity is highlighted below.

Proportion of total sales by type of activity for the first semester of 2005



Proportion of total sales by type of activity for the first semester of 2004



Source : Half-year report 30.06.2005

Table 1 – Sales segmentation by type of activity

Berna Biotech's net sales reached CHF 204.6 Mio in 2004; which represents a 20% decline compared to 2003. This set back was caused by the withdrawal from the market of plasma and smallpox vaccines. Core activities, which today account for 80% of sales, have grown by CHF 52.3 Mio, or by 42%

compared to 2003. The veterinary sector has experienced a decline of its sales due to the « spin-off » of the laboratory activity and a change of distributor.

The operating loss of CHF 21.0 Mio and the negative EBITDA of CHF 0.8 Mio in 2004 are explained by a decline of total sales, as well as by important R&D investments made by the Company to ensure its long-term growth.

The Company expects a decrease of its consolidated sales in 2005 due to the reorganisation of its portfolio of products in 2004 (CHF -13 Mio) and to an anticipated decline in certain activities (CHF -25 Mio). A growth is however expected for the overall vaccine activities, mainly in the travel vaccines sector.

2.2 Products

The main products, already sold on the market, are Inflexal V, Vivotif, Epaxal and Hepavax-Gene.

Two main products are in development phase in the labs of the Company.

- Aerugen: a vaccine for patients suffering from cystic fibrosis;
- DTPw-HepB-Hib (« Penta »): vaccines against diphtheria, tetanus, pertussis (whooping cough), hepatitis B and haemophilus influenzae type B (meningitis).

In addition, Berna Biotech is developing other projects such as ETEC or RSV Flu.

2.3 Joint-Venture

Pevion Biotech is a joint-venture between Berna Biotech and Bachem SA. The two companies each hold 50% of its share capital. This joint-venture develops new vaccines against breast cancer, Alzheimer, hepatitis C and malaria, based on a combination between peptide and virosomal technology developed by Berna Biotech.

3 Valuation of Berna Biotech

3.1 Valuation Methods

To value Berna Biotech's equity, the following methods have been used:

- Risk-adjusted Discounted Cash Flow (DCF)
- Market approach

The equity value obtained through the Risk-adjusted DCF is at the core of our value considerations.

3.2 Risk-Adjusted Discounted Cash Flow Method

According to the theory of investment valuation, the enterprise value corresponds to the expected net cash flows to the investors, discounted at a rate taking into account the risk and the time value of money.

In practice, this value is estimated by the expected future Free Cash Flows, which in the case of a DCF are discounted to their present value by taking into account the cost of capital. The Free Cash Flows correspond to the operating Cash Flows reduced by the investments in fixed assets and working capital. The cost of capital is comprised of the cost of equity and the cost of debt, whereby the cost of equity is derived from the capital market using the CAPM model.

This method takes into account the uncertainties that exist in each enterprise and applies particularly well to the pharmaceutical industry because of products in development and uncertainties surrounding future revenue. Such uncertainties are taken into account in our valuation analysis, as expected Cash Flows are adjusted with their probability of success to take into consideration their risk.

The Free Cash Flows of Berna Biotech are calculated as the sum of project-specific risk-adjusted profit contributions. The Free Cash Flows of major products take into account their expected product lifecycles. The risk adjustment depends on the probability of success of the individual projects.

The risk-adjusted profit contributions are consolidated at the enterprise level and decreased by the group's costs. By considering the forecasted investments and changes in net working capital, one obtains the risk-adjusted Free Cash Flows of Berna Biotech. These in turn are discounted at the valuation date of December 31, 2005.

The enterprise value corresponds to the sum of these discounted Cash Flows. The equity value is obtained by adding the cash positions and deducting the interest-bearing debt.

To validate the value of the share, we conducted various sensitivity analyses. For this purpose, we relied on various scenarios by changing the most important parameters such as a product's probability of success, evolution of profitability and various shifts in the product life cycles. We also checked the sensitivity of the value of the share to a change in cost of capital.

3.3 Discount Rate

The rate used to discount the risk-adjusted Free Cash Flows corresponds to the weighted average cost of capital (WACC), made up of the cost of equity and after-tax cost of debt.

The cost of equity is composed of three components: the risk-free interest rate, the equity premium, and a premium for small capitalizations. The equity premium relies on the Capital Asset Pricing Model (CAPM), whereby the company specific risk premium is the product of the “levered” beta and the market risk premium. The “levered” beta is a measure for the specific risk of a company as compared to the market risk and hinges among other things on its capital structure.

The cost of debt is made up of the risk-free interest rate and the debt premium. By including a debt premium, one considers that a company does not have access to debt that bears a risk-free interest rate, but in light of the risk inherent to the company has to pay an additional interest.

The weighted average cost of capital (WACC) for Berna Biotech has been estimated at 9.9%.

The parameters used to calculate the WACC are briefly described hereafter:

- **Risk-free interest rate**

The risk-free interest rate is derived from the yield of 30-year Swiss Confederation bonds. This was determined to be 2.55%

- **Market risk premium**

The weighted average cost of capital assumes a market risk premium of 4.77%. This represents the difference between the average return of the Swiss stock market and the one of Swiss bonds, since 1926¹.

- **“Unlevered” Beta**

The “unlevered” beta leading to the “levered” beta by taking into account the capital structure has been derived from the “unlevered” betas of public companies in the vaccines industry. A value of 1.03 thus corresponds to the average “unlevered” beta from comparable midsize vaccines companies. Details on betas of comparable companies are provided in Appendix 1.

- **Capital structure**

The capital structure of the comparable companies, provided in Appendix 1, shows that the leading companies in the vaccine industry have in average a low debt to equity ratio (5.5%). The middle-sized comparable companies are even less indebted as they have a net cash position on average. These elements confirm the industry practice that, due to the risk inherent to their activity, firms in the biotechnology sector are in the vast majority fully equity financed. On the basis of the above and on our discussions with the management, a long-term debt to equity ratio of 0% has been assumed in our analysis.

¹ Source: Pictet & Cie: The Performance of Shares and Bonds in Switzerland (1926-2004), 2005.

- **Premium for small capitalizations**

The premium for small capitalizations corresponds to the higher risk-return expectations related with an investment in small and mid-caps. It is obtained by the difference between the long-term return of small capitalizations observed and the return estimated by means of the CAPM (Capital Asset Pricing Model). The American capital market serves as a basis for this empirical analysis. The applied premium of 2.4% has been obtained from an annual study performed by Ibbotson Associates².

- **Tax rate**

Following discussions with management, the WACC has been calculated with a budgeted mid-term effective tax rate of 25%.

3.4 Market Approach

In parallel with the risk-adjusted DCF method, the equity value of Berna Biotech has been validated by means of sales, EBITDA and EBIT multiples, as well as P/E-ratios of comparable public companies.

In addition we searched for comparable company transactions, which took place in the last years. For each of them, we have based ourselves on the transaction amount to obtain multiples and ratios similar to those mentioned above.

As long as enough comparable data is available, these two analyses can lead to a value range – based on the various multiples – within which a plausible value for the equity of Berna Biotech should lie.

² Source: Ibbotson Associates, 2005 Yearbook.

4 Considerations on the Value of Berna Biotech

4.1 Risk-adjusted DCF Method

Projects - both marketed and in-development products- representing a significant part of Berna Biotech's portfolio are the following: Penta, Inflexal V, Aerugen, Vivotif, Epaxal, ETEC and RSV Flu. The veterinary business is considered separately and the remaining activities have been regrouped altogether.

Our value considerations have been based on Berna Biotech from a standalone perspective, excluding synergies expected to result from the transaction between Crucell and Berna Biotech. Our analyses take into account the individual projects and rely mainly on the product life cycles of the main projects, as well as on the development of the remaining activities. Characteristics of the product life cycles such as growth, profitability and probability of success of the individual projects rely on discussions with Berna Biotech management and could be validated through industry benchmarks. The derived risk-adjusted profit contributions for each project flow into the group valuation.

Costs and investments at the group level have been considered separately and are based on the 2006-2010 business plan of Berna Biotech.

Instead of calculating a residual value of the Company at the end of the discrete period of projections detailed in the business plan, Free Cash Flows beyond 2010 have been derived from the risk-adjusted profit contributions for the major products estimated on the basis of their entire remaining life cycles. Beyond 2010, costs and investments at the group level have been estimated based on percentages of the risk-adjusted revenues.

Future tax expenses have been adjusted in accordance to the tax credits, estimated by Berna Biotech's management, in relation with the use of the Company's tax losses carried forward.

Expected cash positions and short-term financial investments, as of December 31, 2005, have been added to the net present value, at the same date, of the risk-adjusted Free Cash Flows. The equity value of Berna Biotech is obtained after deduction of the net interest-bearing debt as per the forecasted balance sheet as of December 31, 2005.

In addition we conducted sensitivity analyses by changing various parameters, at the level of individual projects, as well as at the Berna Biotech group level. Various scenarios relying on industry benchmarks and management projections have been used to determine a value range, within which a plausible share price should lie.

A value range for the Berna Biotech share of CHF 11.50 to CHF 14.50 is derived from our analysis based on the risk-adjusted DCF method.

4.2 Market Approach

For the market approach, market capitalizations of public companies in the vaccines industry, as at November 22, 2005, have been brought in relation with various key financial figures. The latter have been obtained from 2004 financial statements and 2005, 2006 and 2007 analysts' consensus estimates of comparable companies. The average and median of the multiples so derived for each com-

comparable company, have been applied to key financial figures of Berna Biotech, such as sales, EBITDA, EBIT and net earnings.

Comparable companies have been chosen among public companies in the pharmaceutical and biotechnology sector that have a particular link to vaccine manufacturing. These comparable companies are traded on European, American and Australian stock exchanges.

Comparable companies show quite different, sometimes negative profitability, and almost only the sales multiples obtained could be used. Yet, this analysis could only be used in a limited fashion to validate the results obtained from the risk-adjusted DCF, as these companies strongly differ from Berna Biotech with respect to their size, profitability, growth, as well as the maturity of their products and the contribution of the vaccine business to their total revenues.

Sales multiples of comparable public companies are shown in Appendix 2. One shall take note that only sales multiples of mid-size vaccine companies have been included in this analysis. Sales multiples of leading vaccine manufacturers – big pharmaceutical companies – have not been considered due to the limited contribution of their vaccine business to the total revenues.

An analysis of transactions involving companies from the vaccines industry, has shown that the obtained transaction multiples are of little help. The limitations already present in the market approach appear here even stronger, as the comparability further decreases due to the different maturity levels of the products in their life cycle.

In light of the limited comparability of the transactions, we chose not to use the results of this method to validate the value of the share of Berna Biotech.

On the basis of the sales multiples analysis, one obtains a value range of CHF 10.60 to CHF 12.50 for the share of Berna Biotech. In this way the results of the risk-adjusted DCF can be validated satisfactorily.

5 Berna Biotech Share Prices and Volume Analysis

The offer to acquire Berna Biotech's shares at CHF 15.72 is 23% above the average closing price of Berna Biotech's shares over the past 30 days of quotation on the SWX, preceding the date of this report (the "Premium"). The graph below shows the evolution of the prices and the daily exchange volumes of Berna Biotech's share throughout the year preceding the date of the tender offer.

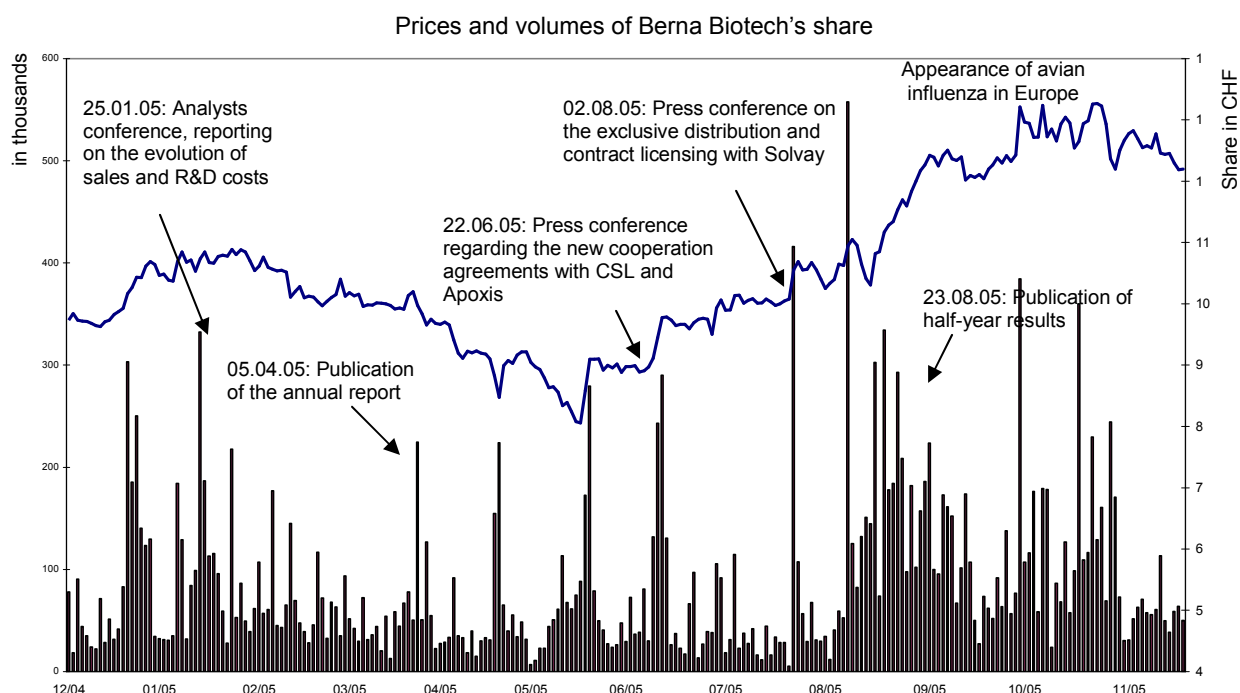


Table 2 – Evolution of prices and volumes of Berna Biotech's share

In the last year, Berna Biotech's share has increased by approximately 26% (share price of CHF 9.80 on November 30, 2004 versus CHF 12.35 on November 30, 2005). This growth of Berna Biotech's share can be explained by the following elements:

- Several announcements on Berna Biotech's business developments (table 2);
- Publication of analysts' reports, including UBS and Merrill Lynch;
- Favourable development in the Swiss equity market and the generally favourable climate in the Biotech sector.

The majority of Berna Biotech's shareholders are Swiss investors. The influence of OrbiMed, as advisor to the main group of shareholders, can be considered as negligible as the latter only holds 9.8% of the share capital.

Berna Biotech's share does not seem to have been influenced negatively by any particular events over the past twelve months. On average, 86'225 shares of Berna Biotech (0.23%) are traded daily.

6 Considerations on the Value of Crucell

6.1 Presentation of the Company

Crucell is a biotechnology company, headquartered in Leiden, The Netherlands and that focuses on developing products which prevent and treat infectious diseases. Crucell's current portfolio includes vaccine candidates against West Nile virus, Influenza, Malaria and Ebola. These products are in various stages of pre-clinical development.

Crucell was incorporated in October 2000 as the holding company for IntroGene B.V., Crucell's predecessor company, following the merger of Introgen B.V. with U-BiSys B.V.. On October 27, 2000 Crucell was listed on both Euronext (Amsterdam) and NASDAQ stock exchanges.

6.2 Considerations on the Value of Crucell

To value Crucell's equity, we have contemplated the possibility of performing a risk-adjusted DCF valuation, but have not retained this method for the following reasons:

- Crucell's products are in various stages of pre-clinical development (early stage);
- The estimation of the probability of success of these projects is highly judgemental;
- The life cycle of these products are also to a large degree difficult to determine.

The assumptions that would be retained for the above-mentioned factors and used under the risk-adjusted DCF method would lead to a large range of values. The analysts' reports (issued from August to November 2005) that we have reviewed confirm this statement as the target price varies significantly from one analyst to the other, i.e. from Euros 11.00 to 35.00 per Crucell's share.

In our analysis of the value of Crucell's equity, we reviewed the recent market share price of Crucell. During our review, we noted the following facts:

- Important free float of approximately 94% (39.1 million shares floated vs. 41.4 million shares outstanding)³ ;
- Stock listed on two stock exchanges, Euronext (Amsterdam) and NASDAQ;
- With an average of approximately 380'000 and 220'000⁴ shares traded per day (1.4% in total) on the Euronext and NASDAQ respectively, Crucell share can be considered as a liquid stock;
- Crucell benefits from a large analysts coverage⁵ .

³ Source: Bloomberg

⁴ Source: Bloomberg, daily average from January 1, 2005 to November 30, 2005

⁵ Goldman Sachs, F. van Lanschot Bankiers, ING, ABN AMRO, Kempen & Co., Jefferies & Co., Rabo Securities, Theodoor Gilissen, Petercam, S&P Equity Research, Bank Insinger de Beaufort and Fortis Bank (Source: Bloomberg)

On the basis of the above, we consider Crucell's market share price to be the most appropriate measurement of the value of Crucell's equity.

6.3 Analysis of the potential dilutive effects of the transaction for Berna Biotech's shareholders

In order to better appreciate, Crucell's tender offer and the resulting exchange ratio, we have analysed the dilutive impact of the transaction to Berna Biotech's shareholders. Our analysis was performed on the basis of Crucell's and Berna Biotech's share price on the day preceding the announcement and the average closing share price of the last 30 days before the announcement.

As a result of our review, we conclude that the transaction does not induce a dilution for Berna Biotech's shareholders.

7 Conclusion

The valuation of Berna Biotech's shareholders' equity relies essentially on the Risk-adjusted DCF method. In order to determine a range of values, we have analyzed different scenarios based on management's estimates and on our own knowledge of the market. This range of values has been validated by the results of the market approach. In addition, the evolution of Berna Biotech's stock price over the last twelve months has been compared to the price offered.

Based on our value considerations of Berna Biotech on a stand-alone basis, without synergies that might result from the merger with Crucell and not taking into consideration any premium to be paid in a take-over context, we estimate the value of a Berna Biotech share to range from CHF 11.00 to CHF 14.00.

Therefore, based on Crucell's share price on the day before the announcement of the offer and on our analysis of Crucell's value, we consider Crucell's tender offer at CHF 15.72 per Berna Biotech share and the exchange ratio of 0.447 shares of Crucell for each Berna Biotech share as fair and appropriate from a financial standpoint.

Yours truly,

PricewaterhouseCoopers Ltd



Jean-François Lagassé



Markus Bucher

8 Appendices

8.1 Appendix 1: Beta and Capital Structure Analysis

Company	Market data					Capital structure		"Levered" Beta		"Unlevered" Beta	
	Currency	Equity (1)	Debt (2)	Cash (3)	Net debt	Net debt/ Equity	Net debt/ EV	Local adjusted Bloomberg Beta (4) 3 years (weekly)	5 years (weekly)	Local adjusted Bloomberg Beta (5) 3 years (weekly)	5 years (weekly)

(A) Leading Companies in the vaccine industry

GlaxoSmithKline Plc	UK	87'670	7'561	3'979	3'582	4%	4%	0.91	0.78	0.87	0.75
Sanofi-Aventis	FR	94'000	16'026	1'866	14'160	15%	13%	0.92	0.89	0.80	0.77
Merck & Co. Inc	US	64'155	6'873	7'090	-217	0%	0%	1.06	0.93	1.06	0.93
Wyeth	US	60'353	8'123	6'489	1'634	3%	3%	0.45	0.51	0.44	0.50
Chiron Corp	US	8'333	1'096	604	493	6%	6%	0.70	0.67	0.66	0.63

Average	5.5%	5.0%	0.81	0.76	0.77	0.72
Median	4.1%	3.9%	0.91	0.78	0.80	0.75

(B) Middle size Companies in the vaccine industry

Baxter International Inc	US	23'380	4'294	1'109	3'185	14%	12%	0.88	0.76	0.77	0.67
Acambis Plc	UK	240	17	125	-109	-45%	-83%	0.88	0.95	1.61	1.74
CSL Ltd	AU	7'176	1'025	724	301	4%	4%	1.01	1.04	0.97	1.00
Berna Biotech	SW	492	73	164	-91	-19%	-23%	0.78	1.16	0.96	1.42
Solvay SA	BE	8'471	2'200	1'406	794	9%	9%	0.93	1.00	0.85	0.91

Average	-7.3%	-16.2%	0.90	0.98	1.03	1.15
Median	4.2%	4.0%	0.88	1.00	0.96	1.00

Selected Beta	0.0%	1.03
----------------------	-------------	-------------

(1) Market capitalization, Bloomberg , November 7, 2005

(2) Debt = Interest bearing debt

(3) Total cash & equivalents

(4) Source: Bloomberg November 7, 2005. Adjusted beta is an estimate of a security's future beta. It is derived from historical data, but modified by the assumption that the beta moves toward the market average (Beta = 1) over time.

(5) Unlevered beta = levered beta / (1+(net debts/equity)) according to Harris-Pringle formula

8.2 Appendix 2: Multiples of Comparable Quoted Companies

Company	Currency	Equity (2)	Debt (3)	Cash (4)	Net debt	Enterprise value (EV)	% of sales in vaccines	EV/ Sales (5)			
(local currency, in millions)		22.11.2005						2004	2005 F	2006 F	2007 F

(A) Leading Companies in the vaccine industry

1	GlaxoSmithKline Plc	GBP	84'214	7'561	3'979	3'582	87'796	5-10%	4.3x	4.1x	3.9x	3.7x
2	Sanofi-Aventis	EUR	97'070	16'026	1'866	14'160	111'230	5-10%	7.4x	4.1x	3.9x	3.7x
3	Merck & Co. Inc	USD	66'627	6'873	7'090	-217	66'409	5-10%	2.9x	3.0x	3.1x	3.1x
4	Wyeth	USD	57'986	8'123	6'489	1'634	59'620	5-10%	3.4x	3.1x	2.9x	2.8x
5	Chiron Corp ⁽¹⁾	USD	8'356	1'096	604	493	8'848	25-35%	5.1x	4.7x	4.0x	3.7x

Average	4.6x	3.8x	3.6x	3.4x
Median	4.3x	4.1x	3.9x	3.7x

(B) Middle size Companies in the vaccine industry

6	Baxter International Inc	USD	24'178	4'294	1'109	3'185	27'363	5-10%	2.9x	2.8x	2.6x	2.4x
7	Acambis Plc	GBP	231	17	125	-109	122	>90%	1.4x	2.1x	1.5x	1.4x
8	CSL Ltd	AUD	7'345	1'025	724	301	7'646	10-15%	4.6x	2.9x	2.8x	2.7x
9	Berna Biotech	CHF	479	73	164	-91	388	50-60%	1.9x	2.1x	1.7x	1.4x
10	Solvay SA	EUR	8'580	2'200	1'406	794	9'374	5-10%	1.2x	1.1x	1.0x	1.0x

Average	2.4x	2.2x	1.9x	1.8x
Median	1.9x	2.1x	1.7x	1.4x

(1) Market capitalization of Chiron based on price as of August 31, 2005; before Novartis public offering.

(2) Market capitalization, Bloomberg, November 22, 2005

(3) Debt = Interest bearing debt

(4) Total cash & equivalents

(5) Sources of sales estimations: Bloomberg, November 22, 2005, Reuters, brokers' reports, annual reports, others