

FAIRNESS OPINION

SERONO S.A.

ASSESSMENT OF THE FINANCIAL ADEQUACY OF THE PUBLIC  
TENDER OFFER BY MERCK KGAA FOR THE ATTENTION OF  
THE BOARD OF DIRECTORS OF SERONO S.A.

ZURICH, 5 JANUARY 2007

**BANK SAL. OPPENHEIM JR. & CIE. (SWITZERLAND) LTD.**  
URANIASTRASSE 28  
P.O. BOX  
CH-8022 ZURICH

TEL. +41 44 214 22 14  
FAX +41 44 211 10 85

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## DEFINITIONS AND ABBREVIATIONS

A	Actual / reported figures
ADS	American Depository Shares
Bertarelli Family	Ernesto Bertarelli, Donata Bertarelli and Maria-Iris Bertarelli
bn	billion
Board of Directors	The board of directors of Serono S.A.
Business plan	Serono's most recent business plan, 2006 - 2015
CHF	Swiss franc
Company	Serono S.A.
DCF	Discounted cashflow
Diluted number of shares	Number of shares outstanding (i.e. excluding treasury shares) per 30 November 2006 assuming conversion of all dilutive potential shares (share options)
DKK	Danish crown
EBIT	Earnings before interest and tax
EBITDA	Earnings before interest, tax, depreciation and amortisation
EPS	Earnings per share
EUR	Euro
Fairness Opinion	Document that constitutes an opinion on the financial adequacy of the Offer Price for the public shareholders
FDA	US Food and Drug Administration
Financial Forecast Information	Certain operational and financial information about Serono internal to the Group, including the latest estimate for 2006, the budget 2007 approved by the executive management board of Serono in December 2006 and the most recent Business Plan 2006 - 2015 approved by the executive management board of Serono in August 2006
GBP	British pound
Group	Serono S.A., together with all its subsidiaries
hGH	Human growth hormone
IVF	In-vitro fertilisation
LH	Luteinising hormone
Ltd.	Limited company
m	million
Merck	Merck KGaA
MS	Multiple sclerosis
Net Debt	The Group's net debt, as defined in section 4.3.

Offer	Public tender offer by Merck KGaA to the shareholders of the Company
Offer Price	CHF 1,100 in cash per bearer share with a nominal value of CHF 25
p.a.	per annum
R&D	Research and Development
S.A.	Société anonyme, a form of limited company in Switzerland
Sal. Oppenheim	Bank Sal. Oppenheim jr. & Cie. (Switzerland) Ltd.
Serono	Serono S.A., together with all its subsidiaries
SESTA	Federal Act on Stock Exchanges and Securities Trading
SPA	Share Purchase Agreement
USD	United States dollar
VD	Canton of Vaud
WACC	Weighted average cost of capital
WHO	World Health Organisation

## 1. INTRODUCTION

### 1.1. Background

Serono S.A. (the “Company”), with its subsidiaries around the world (together, the “Group” or “Serono”), focuses on the discovery, development, manufacturing and marketing of novel therapeutics for the treatment of human diseases. Serono’s products are based mainly on recombinant DNA technology and focus on four therapeutic areas, the largest of which is neurology (e.g. multiple sclerosis (“MS”) treatment) and the others being reproductive health (e.g. fertility treatment), dermatology (e.g. psoriasis treatment) and growth & metabolism (e.g. applications for human growth hormones).

Serono is domiciled in Coinsins (VD), Switzerland, and headquartered in Geneva, Switzerland.

The Company’s issued share capital as per 30 November 2006 was USD 237m (CHF 383m), comprising 11,013,040 registered shares with a nominal value of CHF 10 each and 10,904,029 bearer shares with a nominal value of CHF 25 each.

The Company’s bearer shares are listed on the SWX Swiss Exchange and are traded at the virt-x, London. Serono’s market capitalisation per 27 December 2006 was CHF 16.8bn.

On 21 September 2006, Merck KGaA (“Merck”) signed a share purchase agreement (“SPA”) and on 8 December 2006 an SPA supplement to acquire directly or indirectly 5,672,772 bearer shares (incl. 635,842 treasury shares) and 11,013,040 registered shares from Ernesto Bertarelli, Donata Bertarelli and Maria-Iris Bertarelli (the “Bertarelli Family”). The SPA was closed on 5 January 2007.

With the closing of the SPA, Merck exceeded the threshold of  $33\frac{1}{3}$  per cent of the voting rights of Serono defined in Art. 32 Abs. 1 of the Federal Act on Stock Exchanges and Securities (“SESTA”) and pursuant to the mentioned regulation is obliged to submit a public tender offer for all publicly traded bearer shares of the Company (the “Offer”).

The pre-announcement was published electronically on 5 January 2007 in accordance with Art. 9 of the Ordinance of the Swiss Takeover Board on Public Takeover Offers. Merck offered CHF 1,100 in cash per bearer share with a nominal value of CHF 25 (the “Offer Price”). The Offer Price will be adjusted for dilution effects resulting from dividend payments, capital increases with an issue price below market price, issuance of new options with an issue price below market price and repayments of capital provided that the dilution effect will occur before the closing of the Offer. The Offer Price will not be adjusted for the dilution effects resulting from the issuance of options, shares or American Depositary Shares (“ADS”) in connection with existing employment option schemes and convertible bonds outstanding. The Offer Price is equal to the price offered for the shares acquired directly or indirectly from the Bertarelli Family and includes a premium of 28.5 per cent compared to the average opening price announced by the SWX Swiss Exchange during the 30 trading days prior to the announcement of the share purchase.

Merck, headquartered in Darmstadt, Germany, is a global pharmaceuticals and chemicals company. The pharmaceuticals business division offers patented prescription drugs for the treatment of health conditions that include cancer, metabolic disorders and cardiovascular diseases, as well as offering generic and over-the-counter drugs and remedies. Merck's chemicals business division offers chemicals for high-technology applications, such as components for liquid crystal displays, light-emitting materials, effect pigments for industry and cosmetics, and analytical reagents and test kits for industry, research laboratories and environmental analysis.

Merck's bearer shares are listed on the Frankfurt Stock Exchange and admitted to regional stock exchanges in Germany. Its market capitalisation per 27 December 2006 was EUR 15.1bn.

On the date of pre-announcement of the Offer, Merck, its subsidiaries and affiliated companies and persons acting in concert with it, held 2,308,865 of the Company's bearer shares.

## **1.2. Appointment of Sal. Oppenheim**

The board of directors of Serono<sup>1</sup> (the "Board of Directors") has appointed Bank Sal. Oppenheim jr. & Cie. (Switzerland) Ltd. ("Sal. Oppenheim") to provide an opinion as to the financial adequacy of the Offer Price for the public shareholders. This document constitutes that opinion (the "Fairness Opinion").

The Fairness Opinion is solely intended for the Board of Directors as part of its report to shareholders concerning the Offer. The Fairness Opinion may only be published in connection with that report and may not be used for any other purpose.

The Fairness Opinion does not constitute a recommendation to the public shareholders of Serono to tender their shares to Merck under the Offer and makes no reference to the likelihood or relative benefits of any alternative transaction.

Further, the Fairness Opinion contains no assessment of the following issues:

- n The implications of the proposed transaction and of the Offer for shareholders who choose not to accept the Offer
- n The future value of shares which are not tendered
- n Following completion of the Offer, whether the listing of the shares will be maintained, whether shares will continue to be traded and if so, at what prices.

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<sup>1</sup> The new board of directors of Serono, which was elected by the general assembly on 5 January 2007, has prior to its appointment mandated Bank Sal. Oppenheim jr. & Cie. (Switzerland) Ltd. This appointment has been supported by the former board of directors of Serono by having formally executed the mandate agreement with Bank Sal. Oppenheim jr. & Cie. (Switzerland) Ltd. This appointment has been confirmed by the new board of directors of Serono after its election.

## 2. INFORMATION BASIS

In its analysis, Sal. Oppenheim has made use of the following information:

- n The draft of the offer prospectus from Merck for all publicly held bearer shares of Serono S.A. including the report from the Board of Directors
- n Publicly available information about Serono deemed relevant for the assessment of the Offer, including
  - The audited financial statements for 2004 and 2005 as well as the unaudited report for the third quarter 2006 and
  - Information from the Group's website, press releases and newspaper articles
- n Certain unaudited interim financial information as of 30 November 2006
- n Certain operational and financial information about Serono internal to the Group, including the latest estimate for 2006, the budget 2007 approved by the executive management board of Serono in December 2006 and the most recent business plan 2006 - 2015 (the "Business Plan") approved by the executive management board of Serono in August 2006 (together "Financial Forecast Information")
- n Discussions with the Group's management concerning the Group's existing products, pipeline of new product developments, customers, competitive environment, business prospects, value drivers, strategic plan, and financial and earnings situation in order to validate the plausibility of the Financial Forecast Information
- n Historical trading prices and volumes of Serono S.A.'s bearer shares
- n Financial information and market data (Sources: Bloomberg, Thomson Financials, Annual Reports, etc.) concerning selected quoted companies considered suitable for comparison with Serono
- n Financial information and market data (Sources: Bloomberg, Thomson Financials, Annual Reports, Merger Market, etc.) concerning transactions between other companies considered suitable for comparison with the transaction contemplated by the Offer
- n Publicly available information regarding, inter alia, the pharmaceuticals / biotechnology industry, the Group's business segments, general economic statistics and forecasts, and financial information derived from the capital markets.

For the purposes of its assessment, Sal. Oppenheim has assumed that the financial and other information received from Serono and other sources was accurate and complete and has relied on this information without accepting any responsibility for the independent verification thereof.

Sal. Oppenheim has further relied on the assurances given by the Group's management that the latter is not aware of any facts or circumstances that would render the information incomplete, inaccurate or misleading.

In the preparation of the Fairness Opinion, Sal. Oppenheim has not carried out any physical inspection of any of the Group's buildings and sites. Neither has it undertaken nor commissioned any assessments or estimates of the value of the Group's assets or liabilities nor performed a commercial, financial, tax or legal due diligence.

The Fairness Opinion is based on the market, corporate and economic conditions prevailing at the time of writing.



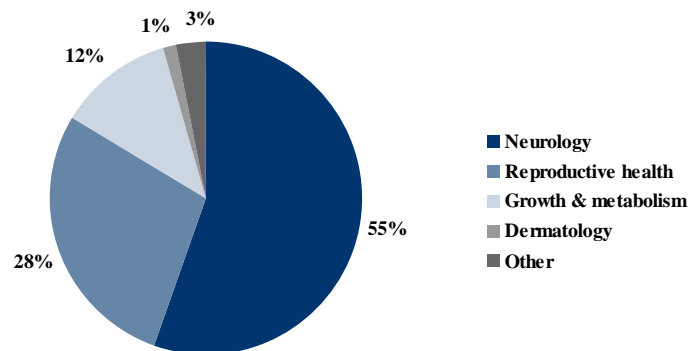
### 3. CORPORATE PROFILE

#### 3.1. Overview

Serono is Europe's largest biotechnology company. Its strategic focus lies on the discovery, development, manufacturing and marketing of novel therapeutics for the treatment of human diseases. Serono's products are based mainly on recombinant DNA technology and focus on four therapeutic areas, the largest of which is neurology (e.g. MS treatment) and the others being reproductive health (e.g. fertility treatment), growth & metabolism (e.g. applications for human growth hormones) and dermatology (e.g. psoriasis treatment).

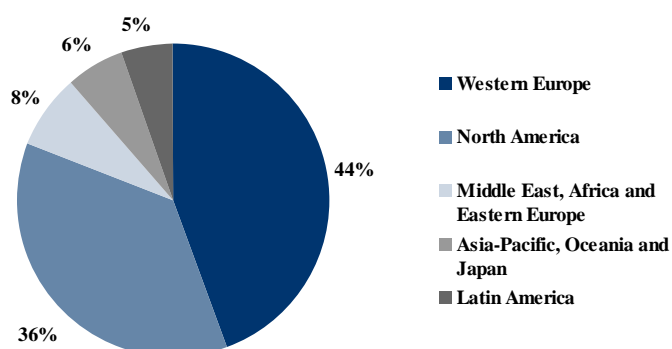
The Group has its headquarters in Geneva, Switzerland, and operations in more than 40 countries, selling its products throughout the world.

2005 product sales by therapeutic area



Source: Serono Annual Report 2005

2005 product sales by geographic area



Source: Serono Annual Report 2005

### 3.2. Neurology

The MS treatment Rebif® (interferon beta-1a) is Serono's bestselling product representing 54 per cent of Group product sales in 2005 with sales of USD 1.27bn. Being already the market leader outside the US, Serono is aiming for the global lead. Rebif® is used for the treatment of relapsing forms of MS and can be self-administered subcutaneously. The product was introduced in European markets in 1998. In 2002 the product was launched in the US where it is co-marketed with Pfizer.

Serono also markets Novantrone® (mitoxantrone hydrochloride) in the US for worsening forms of MS. For oncology indications, Serono has a distribution agreement with OSI Pharmaceuticals for the US market.

MS is a chronic inflammatory disease of the central nervous system. It is believed to be an autoimmune disease in which the T-lymphocytes of the immune system destroy the myelin sheath that surround and protect nerve cells. Destruction of this sheath means that signals to and from the brain and spinal cord are not transferred properly and functions such as movement or sensation can be lost. Symptoms include impaired co-ordination and spastic paresis.

The world health organisation ("WHO") estimates that up to 2.5 million people<sup>2</sup> suffer from MS worldwide. The MS market is estimated to be worth USD 4.9bn<sup>3</sup> in 2006 with a growth rate of 8.9 per cent year-on-year. According to Group management the world-wide market share of Rebif® in 2006 was approximately 25 per cent.

Besides Rebif® other widely used drugs for MS are Copaxone® (Teva / Sanofi-Aventis) and the beta-interferons Avonex® (BiogenIDEC) and Betaseron® (Bayer). In addition, Tysabri® (Elan / BiogenIDEC), a new drug (monoclonal antibody) applying a new method of treatment, was introduced to the market just recently.

### 3.3. Reproductive health

Serono has a global lead position in fertility treatment. Its flagship product Gonal-F® (follitropin alfa), a recombinant fertility hormone, is Serono's second bestselling product with sales of USD 547m, representing 23 per cent of Serono's Group product sales in 2005. Gonal-F® works by stimulating the development of follicles in the ovaries. It is also necessary for the production of healthy spermatozoa in men. A key use is in in-vitro fertilisation ("IVF") treatment.

Gonal-F® is supported by the fertility hormones Ovidrel® (choriogonadotropin alfa) and Luveris® (lutropin alfa). In addition the Group's recombinant reproductive health products are complemented by other products such as Cetrotide®, the first gonadotropin releasing hormone antagonist in the world to be approved for the prevention of premature luteinising hormone ("LH") surge in IVF and Crinone® (progesterone gel), which is used for luteal phase support.

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<sup>2</sup> Neurology Atlas, 2004, WHO

<sup>3</sup> "CNS Drug Discovery: Multiple Sclerosis" by Dr. Cheryl Barton, 27 November 2006

The WHO estimates that approximately one in ten couples experience some form of difficulty in conception. On a world-wide basis this means that 50 - 80m couples are affected. The infertility market is a mature market worth over USD 1bn in 2005 and growing at around 5 per cent<sup>4</sup> p.a. According to Group management, Serono is the market leader of ovulatory agents for the treatment of infertility and captures approximately 55 per cent of the recombinant follicular stimulation hormone market.

The key competitor product to Serono's Gonal-F® is Akzo Nobel / Organon's Puregon® / Follistim, the only other recombinant in the market.

### **3.4. Growth & metabolism**

The Group currently markets two versions of human growth hormones ("hGH"), Saizen® and Serostim®. Combined, these products had sales of USD 277m in 2005, representing 12 per cent of Group product sales.

Saizen® (somatropin) is registered in over 80 countries for the treatment of growth disorders and sold in Europe since 2001 and in the US since late 2004.

Another formulation of somatropin, Serostim®, is a recombinant hGH which has been approved for HIV-related unintentional weight loss in the US. Another product is Zorbtive® (somatropin) for patients with short bowel syndrome.

The growth hormone market has been estimated to be worth USD 2.3bn in 2005 with growth of around 7 per cent<sup>4</sup>. According to Group management, Serono's market share accounts for approximately 12 per cent of the overall growth hormone market.

Recombinant hGH is available in a number of other preparations including Genotropin® (Pfizer), Norditropin® (Novo Nordisk), Humatrop® (Lilly) and Nutropin® (Roche / Genentech). In addition, Omnitrope® by Novartis, the first bio-similar version of hGH, was approved in Europe and the US in 2006.

### **3.5. Dermatology**

In 2002, Serono acquired the rights from Genentech to monoclonal antibody Raptiva® for the treatment of moderate to severe psoriasis in territories outside the US and Japan. In September 2004 Serono received the European approval for the drug, which was the first biologic for indications in Europe. In 2005, it achieved sales of USD 33m in Serono territories, representing 1.4 per cent of total sales.

In psoriasis, the immune system is somehow triggered, leading to infiltration of white blood cells known as T-cells. As a result psoriatic skin cells pile up and form elevated red scaly lesions. Psoriasis affects approximately ten million patients worldwide, of which approximately 35 per cent are thought to have a moderate to severe form of the disease<sup>4</sup>.

Commonly used topical therapies for skin lesions in psoriasis include moisturisers, corticosteroids, coal tar, anthralin, vitamin D analogues, retinoids and ultra violet light therapy. For severe resistant psoriasis, systemic agents are

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<sup>4</sup> Research report on Serono of ING dated 1 September 2006

used, including the immunosuppressant Methotrexate®, Cyclosporines® and Roche's Soriatane®. Enbrel® (Wyeth) and Remicade® (Schering-Plough) are the most important competitors of Raptiva® in this market segment. Cimzia® (UCB) is another product candidate, which is currently in clinical trials.

### **3.6. Product pipeline**

In 2005, Serono invested USD 594m or 23 per cent of Group revenues in Research and Development ("R&D"). Besides integrated in-house activities, the Group has a network of alliances with other biotechnology companies and academic groups. In addition the Group is expanding its own product pipeline by in-licensing new compounds.

Serono conducts R&D in five therapeutic areas: reproductive health, neurology, metabolism, autoimmune / inflammatory and oncology. The Group currently has 6 Phase III, 4 Phase II and 11 Phase I R&D projects ongoing and an additional 15 products in pre-clinical development. Revenues from Phase III and II projects are expected at the earliest by 2008.

The potentially most important product candidate is Oral Cladribine, a purine analogue acting as an immunosuppressant. Cladribine could become the first orally effective treatment for MS. In injectable form Cladribine is marketed by Johnson & Johnson under the brand name Leustatin® for the treatment of leukaemias. Oral Cladribine, which is currently in Phase III, was recently given a Fast Track status by the Food and Drug Administration ("FDA"). In addition to Serono's Cladribine, there are several oral MS treatments in late-stage development including Teriflunomide (Sanofi-Aventis), BG-12 (BiogenIDEC / Fumapharm) and FTY-720 (Novartis).

Other projects in Phase III include:

- n Phenoptin, an oral drug for the treatment of mild to moderate phenylketonuria, an inherited metabolic disease caused by the deficiency of an enzyme. In 2005, Serono in-licensed the worldwide rights to the drug, excluding the US and Japan, from BioMarin
- n Zanolimumab, a drug for the treatment of non-Hodgkin's lymphoma, a type of T-cell lymphoma that appears in the skin and over time may involve other organs. In 2005, Serono in-licensed the global rights to the drug from Danish biotechnology company Genmab.

### **3.7. Business strategy**

Serono is aiming to consolidate its position as global leader in biotechnology, and to improve the lives of patients, by developing proteins, monoclonal antibodies and small molecules which focus on specialised therapeutic areas associated with serious medical conditions. In addition to its existing areas of focus, the Group is also pursuing the discovery of new products to address significant unmet therapeutic needs in the areas of autoimmunity and oncology. Serono is further strengthening its pipeline through R&D collaborations and also intends to grow through acquisitions.

Besides the general corporate and operating risk, the Group faces a number of industry specific risks in the fulfilment of its strategy, including:

- n If the Group does not successfully complete the clinical trials of product candidates, it will not be able to market these compounds
- n Serono is exposed to the risk of product liability claims inherent in the development of drugs
- n If the Group is not able to protect its proprietary rights through patents, its business, competitive position and future growth prospects could be harmed
- n The Group might be restricted in its development and commercialisation activities by third party patents
- n Successful commercialisation will depend on the price and reimbursement policies of regulatory authorities, health organisations and private insurance companies
- n The Group is highly dependent on the sales development of its core products
- n Key employees might leave, particularly among Group management, experienced production and R&D managers or highly qualified scientists.

## **4. VALUATION**

### **4.1. Financial data**

Serono presents its financial statements in USD. The Group's financial year runs from January to December. The Group's interim and quarterly financial statements are not audited.

The Forecast Financial Information, which was the basis for this Fairness Opinion, has been established by the Group management, for internal purposes only, during the regular budget and planning process. The Business Plan has last been updated and approved by the executive management board of Serono in August 2006. The latest profit and loss data for 2006 are based on Group management's last best estimate as of November 2006. The budget 2007 was approved by the executive management board of Serono in December 2006. The Forecast Financial Information has not been disclosed to the public.

According to Group management, the latest estimate 2006, the budget 2007 and the Business Plan until 2010 are based on current plans, initiatives and the financial situation of the Group, while the Business Plan beyond 2010 merely reflects a long-term plan with a high and, with the time, increasing degree of uncertainty, in particular with regard to the achievability of the assumed future potential of new products currently in development and of the indicated sales of existing products beyond patent protection. According to Group management such increase in degree of uncertainty can neither be measured nor estimated reasonably, be it for single projects or the forecast financials as a whole, and the likelihood of achieving the Business Plan beyond 2010 cannot be assessed. Therefore, the Business Plan beyond 2010 has not been taken into consideration for the valuation of Serono.

### **4.2. Valuation methods**

The financial adequacy of the Offer Price was assessed by Sal. Oppenheim using the following valuation methods:

- n Discounted cashflow analysis
- n Comparable quoted companies analysis
- n Comparable transactions analysis.

The above methods were used to determine the Group's enterprise value (also referred to as firm value) and / or its equity value. In situations where the enterprise value was determined, interest-bearing liabilities were deducted from, and cash added to the result, in order to calculate the equity value.

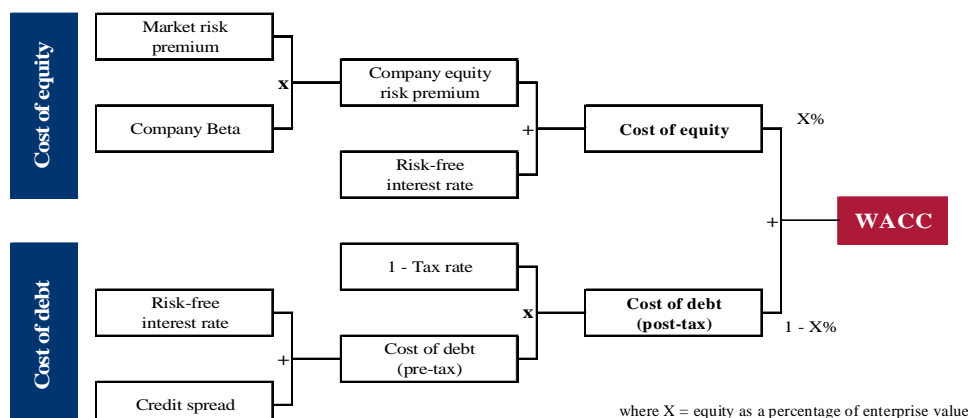
The calculated value per bearer share was obtained by dividing the equity value with the number of shares outstanding (i.e. excluding treasury shares) per 30 November 2006, assuming conversion of all dilutive potential shares (share

options)<sup>5</sup> (all together “diluted number of shares”) and then compared with the Offer Price.

In addition to the above valuation methods, an analysis of the development of the Company’s share price was undertaken.

#### 4.2.1. Discounted cashflow (“DCF”) analysis

The DCF valuation method determines the enterprise value of a company by discounting the estimated future unlevered free cashflows<sup>6</sup> with the weighted average cost of capital (“WACC”). The cashflows are usually forecast over the medium term. Thereafter, a terminal value is determined on the basis of long-term assumptions. The WACC is calculated (as illustrated below) based on the required rate of return on equity (calculated using the capital asset pricing model), the future anticipated cost of debt, the long-term target capital structure and the company’s long-term tax rate.



The risk-free interest rate is derived from the yield available on long-term government bonds.

Investors require a higher rate of return when investing in equities than when investing in government bonds, on account of their different risk characteristics. Measured over a long period of time, the difference between the return available from equity markets and that available from (virtually) risk-free government bonds is used to determine the market risk premium. For full information concerning the calculation of the WACC, please refer to section 4.3.1. below.

To derive the terminal value we have normalised the unlevered free cashflow in the final year of the forecast period and monetised it based on assumed perpetual growth (unlevered free cashflow / (WACC minus perpetual growth rate)). The terminal value so derived is then expressed in present value terms by discounting the figure using the WACC.

<sup>5</sup> For stock options a calculation has been made to determine the number of shares that could have been acquired at fair value based on proceeds from the exercise of stock options. The number of shares calculated as above is compared with the number of shares that would have been issued assuming the exercise of the stock options. The difference is added to the total shares outstanding.

<sup>6</sup> Unlevered operating cashflows minus capital expenditures

#### *4.2.2. Comparable quoted companies analysis*

An analysis of quoted companies deemed comparable to Serono is undertaken in order to derive the relationship between the enterprise value or the current market capitalisation, as applicable, of these companies and selected historical and forecast financial results.

In this case, the following criteria were applied in the selection of the comparable quoted companies:

- n Industry: Pharmaceuticals and biotechnology
- n Product offering: Own or in-licensed proprietary drugs for the treatment of human diseases. Generic drug manufacturers were excluded
- n Business model: Same or similar life-cycle as Serono (i.e. profitable track record)
- n Size: Current market capitalisation in excess of USD 1bn
- n Geography: Europe and North America.

In order to determine current trading multiples, the enterprise value or current market capitalisation of each company was divided by the estimated results (EBITDA, EBIT, net income) for 2006, 2007 and 2008, as forecast by market analysts. The multiples derived from this analysis were applied to the corresponding financial forecasts of Serono.

In addition, we have analysed the historical share price development of Serono over the twelve months period prior to the announcement of the share purchase by Merck and calculated the respective implied trading multiples of Serono.

#### *4.2.3. Comparable transactions analysis*

In analogy of the analysis conducted in respect of comparable quoted companies, an analysis of comparable transactions estimates the enterprise value of the target (in this case Serono) by applying derived multiples to the financial results of the target. The transaction multiples are ascertained by dividing the acquisition price (enterprise value) by the most recent historical results (EBITDA, EBIT) of the target applicable at the time of the transaction.

The transaction multiples illustrate the prices which have been paid for similar companies in the past and therefore implies, what a potential buyer may be willing to pay for Serono.

The criteria applied in the selection of the comparable transactions in this case were as follows:

- n Industry: Pharmaceuticals and biotechnology
- n Product offering: Own or in-licensed proprietary drugs for the treatment of human diseases. Generic drug manufacturers were excluded
- n Business model: Same or similar life-cycle as Serono (i.e. profitable track record)
- n Geography: Europe and North America



- n Size: Transaction value in excess of USD 200m
- n Stake acquired: Majority (i.e. acquisition of a shareholding in excess of 50 per cent or other evident form of control)
- n Status: Only completed transactions
- n Period: Since January 2002.

The relevance of this valuation method is highly dependent on the individual circumstances of each transaction:

- n The relative strategic strengths of the transaction participants
- n The premium paid for control of the target
- n The nature of the acquisition process itself (e.g. competitive auction)
- n The conditions prevailing in the company's industry, in the wider economy and in the capital markets at the time of the transaction
- n The financial situation of the target
- n The accuracy of the reporting of the transaction by the participants and the financial press.

Using the data from the comparable transactions analysis we have also analysed the premiums paid in comparable public transactions and compared these with the premium that has been offered to the Bertarelli Family and to all Serono shareholders.

#### **4.3 Valuation of Serono**

Each of the valuation methods described in section 4.2 above was used to determine a theoretical enterprise value and equity value of Serono.

Where in the first instance the enterprise value was determined, this figure was adjusted by the Group's net debt ("Net Debt") to ascertain the equity value. Net Debt was calculated as follows:

- n Short and long term financial debt as per 30 November 2006; plus
- n Market value of the convertible bonds outstanding per 30 November 2006; less
- n Cash and cash equivalents as per 30 November 2006; less
- n Short-term available-for-sale financial assets as per 30 November 2006; less
- n Long-term available-for-sale financial assets as per 30 November 2006.

The share price ranges stated below were determined from the equity value divided by the diluted number of shares.

#### 4.3.1. Valuation based on DCF analysis

The Group's unlevered free cashflows for 2007 to 2010 were derived from Serono's Financial Forecast Information. The normalised EBITDA margin was derived from the peer group analysis.

The following assumptions were also used for the DCF valuation:

Item	Description / Source	Value
<b>Risk-free interest rate<sup>7</sup></b>	Current yield of the 30-year US government bond	4.8 %
<b>Company beta</b>	Serono's predicted beta against the Swiss Market Index <sup>8</sup>	1.1
<b>Market risk premium<sup>9</sup></b>	Derived from an analysis of the average return on the Swiss equity market compared with that on Swiss bonds since 1926 <sup>10</sup>	5.0 %
<b>Target capital structure<sup>11</sup></b>	Derived from an analysis of the comparable quoted companies	0 %
<b>Credit margin</b>	Based on the Group's S&P credit rating of A-	0.7 %
<b>Long-term tax rate</b>	Serono's long-term tax rate, according to Group management	16 %

Applying the calculation steps represented schematically in section 4.2.1. the above assumptions result in a WACC of 10.3 per cent.

The discounted terminal value (representing 74 per cent of the determined enterprise value) was calculated as described under section 4.2.1. above. The perpetual growth rate of the Group's cashflow was estimated at 2.5 per cent p.a. with reference to the Group's target market.

A sensitivity analysis of the valuation resulting from the DCF analysis was also undertaken by varying the WACC and the perpetual growth rate for the terminal value calculation. The results of the sensitivity analysis are presented in Appendix A.

Based on a WACC of 9.8 to 10.8 per cent and a perpetual growth rate of 2.0 to 3.0 per cent and taking into consideration Net Debt and the diluted number of

<sup>7</sup> Serono's financial statements are presented in USD. A significant portion of the Group's annual revenues is earned in USD or in currencies pegged to the USD. In addition to this a significant portion of the Group's expenses also occur in USD. The Company's shares are listed on SWX Swiss Exchange and are traded in Swiss francs. An investor is therefore exposed to the effects of foreign exchange movements between Swiss francs and USD. An investor could reduce this exposure by refinancing in USD. Hence, a long-term US government bond was used for the determination of the risk-free interest rate

<sup>8</sup> Source: Barra International, Frankfurt

<sup>9</sup> Serono is headquartered in Switzerland and its shares are traded on SWX Swiss Exchange. The risk premium for equities in the Swiss market was therefore considered the most appropriate

<sup>10</sup> Pictet & Cie.: The performance of shares and bonds in Switzerland 1926-2005, January 2006

<sup>11</sup> Net debt as a percentage of enterprise value

shares, the DCF analysis resulted in a valuation range of CHF 818 to 986 per bearer share.

#### *4.3.2. Comparable quoted companies analysis*

For the valuation of Serono, comparable quoted companies active in the field of European and North American pharmaceuticals and biotechnology were selected (refer to section 4.2.2.) and analysed on the basis of market conditions applying on 27 December 2006.

The enterprise value or current market capitalisation of each company was ascertained and the following multiples calculated from forecast financial results:

- n Enterprise value / EBITDA, 2006 - 2008
- n Enterprise value / EBIT, 2006 - 2008
- n Price / earnings ratio, 2006 - 2008.

The median of these multiples were then applied to the respective 2006 - 2008 forecast figures of Serono.

The most recently published financial statements were used to determine the net debt and the number of shares outstanding of each comparable company. Market forecasts were derived from those estimates published after announcement of the most recent quarterly or half-year results.

The current trading multiples ascertained from the analysis of comparable quoted companies are presented in Appendix B.

The median EBITDA multiples were 12.3x, 11.2x and 10.2x for the years 2006, 2007 and 2008, respectively. The median EBIT multiples were 16.0x, 13.2x and 11.9x for the years 2006, 2007 and 2008, respectively. The median Price / earnings ratios were 18.8x, 17.0x and 15.6x for the years 2006, 2007 and 2008, respectively.

Based on Net Debt and the diluted number of shares, the analysis based on comparable quoted companies applying median 2006, 2007 and 2008 multiples resulted in a valuation range of CHF 1,062 to 1,174 per bearer share.

#### *Share price analysis*

On 8 November 2005 Serono announced the appointment of Goldman Sachs to explore various strategic alternatives for the Group. This announcement triggered take-over speculations and accordingly a strong share price increase from CHF 860 to CHF 951, subsequently peaking at CHF 1,088 on 11 January 2006. On 10 April 2006 Serono announced the termination of discussions concerning the sale of the Group and a new acquisition strategy, for which new authorised share capital should be established. As a result the share price dropped from CHF 922 to CHF 828. Between then and the announcement of the share purchase by Merck, the share price ranged from CHF 828 to CHF 915, implying an EBITDA and EBIT multiple 2007 of 8.4x - 9.4x and 9.6x - 10.8x respectively (Net Debt and diluted number of shares outstanding as of 30 November 2006) (see Appendix D). These implied multiples were substantially below the corresponding median multiples of the peer group. Main reasons stated by the community of research analysts were:

- n High dependency on the sales development of core product Rebif® which contributed 54 per cent of Group product sales in 2005
- n Limited growth potential of existing product portfolio
- n Disappointing product development results in recent years
- n Only limited number of product candidates with significant market potential in advanced clinical development
- n Risks associated with the new acquisition strategy.

Taking these concerns into consideration, the valuation range resulting from the median multiples of the comparable quoted companies analysis reflects in our view the high end of a fair and reasonable valuation.

#### *4.3.3. Comparable transactions analysis*

A valuation analysis was also conducted based on completed transactions, in which the target was a company comparable to Serono (refer to the criteria stated under section 4.2.3.).

The enterprise value of each target company was ascertained and the following multiples were calculated from the most recent historical financial results prior to the completed transaction, respectively:

- n Enterprise value / EBITDA
- n Enterprise value / EBIT.

The transaction multiples derived from the analysis of comparable transactions are presented in Appendix C.

The median EBITDA multiple was 13.2x, of a range from 6.1x to 27.9x. The median EBIT multiple was 18.1x, of a range from 7.0x to 24.5x.

This wide range of derived transaction multiples limits the significance of the comparable transactions analysis. There are several explanations for this situation:

- n Due to the lack of profitable target companies within the pharmaceuticals and biotechnology sector, only a small sample of transactions could be analysed
- n Limited financial information was available for several of the identified transactions
- n In order to get a sample of transactions as large as possible we have analysed transactions dating back to 2002. During the analysed period market conditions were not comparable to those of today
- n The competitive bidding environment for the selected transactions differed from case to case, diminishing the overall comparability with the takeover of Serono by Merck.

Because of the limited significance, the results from the comparable transactions analysis were not taken into account in our valuation conclusion.

*Share premium analysis*

The Offer Price of CHF 1,100, which is equal to the price offered for the shares acquired directly or indirectly from the Bertarelli Family, includes a premium of 28.5 per cent compared to the average opening price announced by the SWX Swiss Exchange during the 30 trading days prior to the announcement of the share purchase, or a premium of 31.4 per cent compared to the average opening price announced by the SWX Swiss Exchange over the three months prior to the announcement of the share purchase (see Appendix D). The equivalent median premiums observed in the public takeovers from our sample of comparable transactions were 16.1 per cent and 24.2 per cent, respectively.

## 5. OPINION

Based on the analysis undertaken and on the valuation considerations described above, a valuation range of CHF 902 to 1,062 per Serono bearer share was determined. This range is based on the middle of the valuation range derived from the DCF analysis and the lower end of the valuation range determined by the comparable quoted companies analysis.

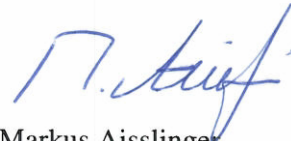
Based on the valuation analysis and considerations in this Fairness Opinion, we consider the Offer Price to be fair and reasonable from a financial point of view.

The Fairness Opinion has been issued on 5 January 2007.

Bank Sal. Oppenheim jr. & Cie. (Switzerland) Ltd.



Ronald Birrer  
Deputy Head Investment Banking



Markus Aisslinger  
Head Equity Capital Markets

APPENDIX A      DCF VALUATION – SENSITIVITY ANALYSIS

		Perpetual growth rate						
		1.75%	2.00%	2.25%	2.50%	2.75%	3.00%	3.25%
WACC	8.8%	987	1,011	1,037	1,065	1,095	1,127	1,163
	9.3%	933	953	975	999	1,024	1,051	1,081
	9.8%	885	903	921	942	963	986	1,011
	10.3%	843	858	874	892	910	930	951
	10.8%	805	818	833	848	864	881	899
	11.3%	771	783	796	809	823	838	854
	11.8%	741	751	763	774	787	800	814

## APPENDIX B ANALYSIS OF COMPARABLE QUOTED COMPANIES

Company	Currency (LC)	Share price 27/12/2006	Market capitalisation in LC m	Net debt / (cash) in LC m	Firm value in LC m	Firm value / EBITDA			Firm value / EBIT			PE ratio		
						Dec-06	Dec-07	Dec-08	Dec-06	Dec-07	Dec-08	Dec-06	Dec-07	Dec-08
Abbott Laboratories	USD	49.0	75,208.3	9,048.0	84,256.4	13.3x	11.8x	10.9x	17.4x	15.4x	13.8x	19.4x	17.3x	15.4x
Actelion	CHF	270.8	6,159.7	(472.6)	5,687.1	21.5x	17.8x	15.7x	23.0x	19.7x	17.9x	29.5x	25.8x	24.0x
Altana	EUR	47.1	6,419.8	141.9	6,563.7	7.1x	6.7x	6.4x	8.8x	8.2x	7.8x	13.4x	12.5x	11.8x
Amgen	USD	68.5	79,859.9	992.0	80,851.9	11.9x	11.0x	10.2x	13.9x	13.2x	12.5x	17.2x	16.4x	15.6x
AstraZeneca	USD	53.8	83,413.4	(3,215.0)	80,298.4	8.5x	8.3x	7.8x	9.9x	9.7x	9.0x	14.0x	13.6x	12.7x
Barr Pharmaceuticals	USD	50.9	5,414.1	0.0	5,414.1	8.0x	6.3x	5.8x	9.3x	7.3x	6.6x	15.3x	13.1x	11.6x
Biogen Idec	USD	49.2	16,573.2	(615.9)	15,957.2	11.9x	11.7x	11.0x	14.9x	12.2x	11.2x	21.2x	18.4x	16.1x
Bristol-Myers	USD	26.3	51,705.3	3,763.0	55,468.3	14.1x	11.5x	9.7x	19.4x	14.6x	12.6x	25.3x	21.7x	18.2x
Cephalon	USD	69.5	4,235.9	1,027.9	5,263.8	10.2x	11.0x	8.0x	10.4x	10.6x	7.1x	13.2x	14.8x	11.5x
Eli Lilly	USD	52.0	58,842.6	1,269.0	60,111.6	12.3x	11.2x	10.2x	16.0x	14.3x	12.9x	17.4x	16.5x	14.9x
Forest Laboratories	USD	50.9	16,133.9	(984.8)	15,149.2	13.7x	12.3x	11.3x	14.5x	12.8x	11.7x	19.6x	17.4x	15.6x
Genentech	USD	80.0	84,320.1	61.0	84,381.1	25.4x	19.3x	15.3x	24.1x	19.3x	16.0x	36.3x	29.3x	23.7x
Genzyme	USD	61.7	16,228.7	(131.7)	16,097.0	17.0x	14.5x	12.4x	25.5x	21.6x	18.2x	40.6x	27.6x	23.1x
Gilead Sciences	USD	66.0	30,362.4	(1,413.4)	28,949.0	16.2x	15.6x	15.2x	16.5x	15.9x	15.5x	23.9x	22.9x	22.0x
GlaxoSmithKline	GBP	13.5	75,750.4	4,731.0	80,723.4	9.1x	8.8x	8.4x	10.2x	9.9x	9.4x	14.1x	13.5x	12.8x
H Lundbeck	DKK	153.8	32,183.2	(762.0)	31,421.2	13.9x	9.4x	8.2x	18.0x	11.4x	9.8x	29.9x	17.0x	14.3x
ImClone Systems	USD	26.5	2,241.3	(391.5)	1,849.8	6.0x	9.1x	8.9x	6.5x	10.2x	10.0x	8.3x	15.6x	15.9x
Johnson & Johnson	USD	66.0	191,386.4	(8,753.0)	182,633.4	11.4x	10.5x	9.7x	13.4x	12.2x	11.4x	17.3x	16.1x	15.1x
Merck & Co.	USD	43.4	94,156.4	(3,100.7)	93,492.7	10.1x	10.1x	10.4x	19.6x	21.0x	21.2x	17.2x	16.7x	16.1x
Merck KGaA	EUR	79.2	15,119.6	716.6	15,894.6	10.3x	9.5x	8.1x	12.7x	12.2x	10.1x	15.1x	17.5x	15.1x
Novartis	USD	57.9	136,021.7	691.0	136,875.7	13.5x	12.2x	11.3x	16.2x	14.7x	13.3x	18.8x	16.7x	15.2x
Novo Nordisk	DKK	471.0	152,469.7	(3,195.0)	149,274.7	13.3x	11.8x	10.5x	16.3x	14.3x	12.7x	24.3x	21.1x	18.4x
Pfizer	USD	26.2	188,553.1	(612.0)	187,941.1	8.4x	8.3x	8.0x	10.3x	10.2x	10.0x	12.7x	12.4x	12.3x
Roche	CHF	219.9	193,821.5	(7,542.0)	193,115.5	13.6x	11.7x	10.2x	16.6x	14.1x	11.9x	24.4x	20.8x	18.0x
Sanofi-Aventis	EUR	70.2	94,483.5	8,786.0	103,391.5	9.7x	9.3x	8.8x	11.1x	10.7x	10.3x	14.3x	14.1x	13.1x
Schering-Plough	USD	23.9	35,433.5	(1,462.0)	33,971.5	17.0x	13.6x	12.2x	21.8x	18.1x	14.1x	28.0x	22.0x	18.3x
Shire	USD	20.7	10,389.3	(955.2)	9,556.1	21.9x	15.2x	11.8x	28.5x	17.7x	12.9x	39.7x	27.3x	20.0x
UCB	EUR	52.1	7,418.9	421.0	7,839.9	14.1x	12.4x	11.3x	17.9x	15.7x	14.5x	24.0x	22.4x	21.0x
Wyeth	USD	51.3	69,085.7	2,247.0	71,332.7	11.6x	10.6x	9.5x	13.2x	11.6x	10.4x	15.9x	14.4x	13.1x
<b>Median</b>						<b>12.3x</b>	<b>11.2x</b>	<b>10.2x</b>	<b>16.0x</b>	<b>13.2x</b>	<b>11.9x</b>	<b>18.8x</b>	<b>17.0x</b>	<b>15.6x</b>

Note: Analysis based on latest available financial results; company financial year-end adjusted to December, where applicable



## APPENDIX C ANALYSIS OF COMPARABLE TRANSACTIONS

Announcement date	Target	Acquirer	Currency	Stake		Implied firm value in LC m	Firm value as multiple of	
				Acq'd %	Result %		EBITDA	EBIT
Nov-06	Kos Pharmaceuticals	Abbott Laboratories	USD	100%	100%	3,187	14.6x	17.6x
Sep-06	Altana Pharma	Nycomed Pharma	EUR	100%	100%	4,215	6.1x	7.0x
Mar-06	Schering	Bayer	EUR	94%	94%	16,793	13.2x	18.1x
Oct-05	Chiron	Novartis	USD	58%	100%	9,541	27.9x	n/m
Aug-05	Viartis	Meda	EUR	100%	100%	750	15.3x	n/a
Mar-05	Fournier Pharma	Solvay	EUR	100%	100%	1,615	n/a	11.7x
Mar-05	Nycomed Holding	Nordic Capital / Blackstone	EUR	51%	100%	1,865	11.7x	n/m
Oct-04	Warner Chilcott	Waren Acquisition	GBP	100%	100%	1,672	21.7x	24.5x
Jan-04	Aventis	Sanofi-Synthelabo	EUR	100%	100%	58,032	11.0x	15.8x
Dec-03	Aventis Behring	CSL	EUR	100%	100%	761	8.0x	20.6x
May-03	Powderject Pharmaceuticals	Chiron	GBP	100%	100%	528	15.7x	21.7x
Oct-02	Nycomed Holding	AlpInvest / Blackstone / CSFB	EUR	100%	100%	1,158	11.5x	n/m
Jul-02	Pharmacia	Pfizer	USD	100%	100%	59,131	17.5x	21.3x
May-02	Rhein Biotech	Berna Biotech	EUR	92%	100%	191	12.6x	n/m
						<b>Median</b>	<b>13.2x</b>	<b>18.1x</b>

## APPENDIX D SHARE PRICE AND PREMIUM ANALYSIS



\* Prior to announcement date of 21 September 2006