

Roche Annual Report 2007

Part 1

## **Business Report**

*We Innovate Healthcare*



## **We Innovate Healthcare**

As a research-intensive healthcare company, Roche discovers, develops and provides innovative diagnostic and therapeutic products that deliver significant benefits to patients and healthcare professionals – from early detection and prevention of diseases to diagnosis, treatment and treatment monitoring. With a long-term strategic focus, Roche strives to deliver sustainable value to all stakeholders.

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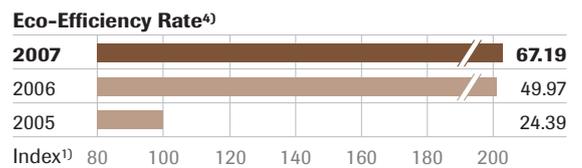
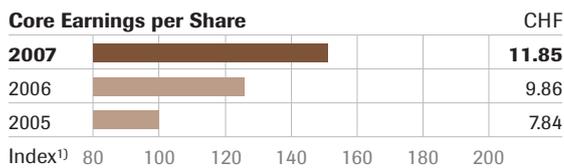
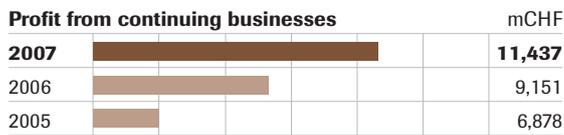
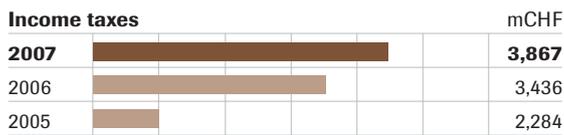
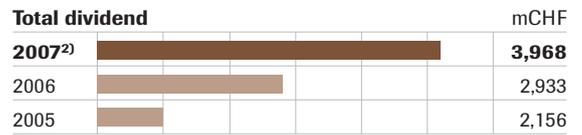
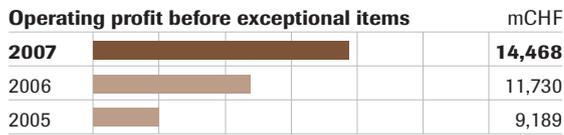
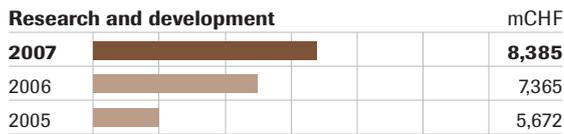
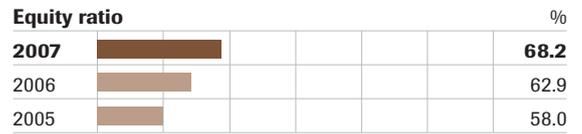
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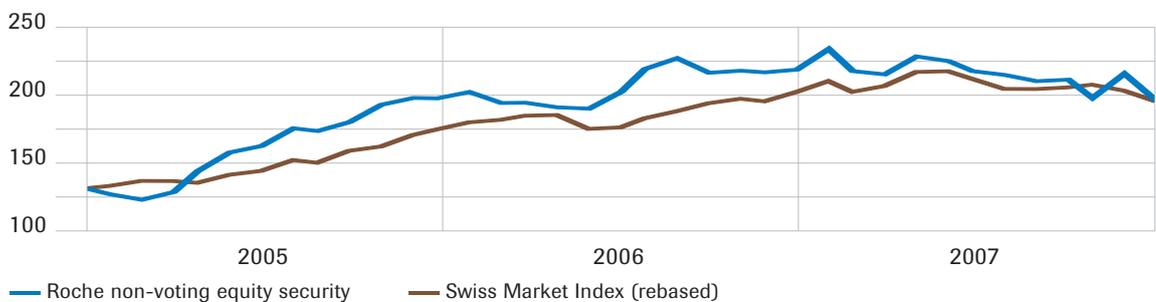
## Key figures

### Roche Group

Index 2005 = 100



### Price development of non-voting equity security (*Genussschein*) in CHF



1) Key figures indexed to 2005 = 100.

2) Proposed by the Board of Directors.

3) Development phase I to IV.

4) For calculation of the Eco-Efficiency Rate see:  
[www.roche.com/sus-she\\_performance](http://www.roche.com/sus-she_performance)

Figures for 2005 as in Annual Report 2006.

For a full index of Global Reporting Initiative (GRI) indicators used in the report see: [www.roche.com/sus-gri](http://www.roche.com/sus-gri)

## The year 2007 in brief

### Roche Group

- Group sales grow 10% to 46.1 billion Swiss francs.
- Operating profit up by 22% to 14.5 billion Swiss francs.
- Increase in net income of 25% in Swiss francs to 11.4 billion Swiss francs.
- Increase in Core EPS<sup>1)</sup> of 20% in Swiss francs to 11.85 Swiss francs.
- Increase in proposed dividend of 35% from 3.40 to 4.60 Swiss francs, representing the 21<sup>st</sup> consecutive year of dividend growth.

### Pharmaceuticals

- Division posts double-digit sales growth of 11% (13% excluding Tamiflu pandemic sales) to 36.8 billion Swiss francs again significantly outpacing global markets.
- Operating profit up by 22% to 13.0 billion Swiss francs and operating profit margin up by 3.8 percentage points to 35.5%.
- Additional indications and introductions strengthen leadership position in oncology.
- Mircera launched in Europe for treatment of renal anemia.
- Actemra filed in US and EU for rheumatoid arthritis.
- Substantially higher R&D expenses of 7.6 billion Swiss francs reflect strong pipeline and large number of late-stage clinical trials.
- New agreements with Transgene (therapeutic vaccines), Toyama (rheumatoid arthritis) and Alnylam (RNAi).

### Diagnostics

- Division maintains global market leadership as sales rise 6% to 9.3 billion Swiss francs.
- Operating profit increases to 1.6 billion Swiss francs, and operating profit margin up 1.3 percentage points to 17.6%.
- Acquisitions of 454 Life Sciences, BioVeris Corporation and NimbleGen Systems, Inc. completed.
- Merger agreement signed with Ventana Medical Systems, Inc. (US).

### Outlook

- High single-digit sales increase for the Group<sup>2)</sup>.
- Sales increase of both Divisions<sup>2)</sup> above market growth.
- Core Earnings per Share<sup>3)</sup> target at least at record 2007 level despite significant increase in R&D investment and considerably lower Tamiflu pandemic sales.
- Continued increase in dividend payout ratio over next three years.

For additional information about Roche, visit <http://www.roche.com>

Barring unforeseen events

Unless otherwise stated, all growth rates are in local currencies.

1) Core EPS (Earnings per Share).

2) Excluding Tamiflu pandemic sales.

3) Core Earnings per Share target is based on constant exchange rates.



## Letter from the Chairman



### Dear Shareholders,

Your company achieved outstanding results again in 2007, despite tougher market conditions. For the seventh straight year the Roche Group's sales increased by double-digits, advancing 10% to 46 billion Swiss francs. This more than 4 billion Swiss franc increase in sales revenues was all achieved organically. Once again, the Pharmaceuticals Division was the main growth driver. Its sales grew almost twice as fast as the global pharmaceuticals market. The Diagnostics Division maintained its position as the global market leader in *in vitro* diagnostics, with divisional sales increasing slightly ahead of the market. Revenue growth again outpaced costs, resulting in another significant improvement in the Group's earnings performance. In view of Roche's excellent full-year results, the Board of Directors will propose that the dividend for 2007 be increased by 35% to 4.60 Swiss francs per share

and non-voting equity security (up from 3.40 Swiss francs for 2006). Subject to your approval at the next Annual General Meeting of Shareholders, this will be Roche's 21<sup>st</sup> consecutive annual dividend increase.

While research and development expenses increased 16% to 8.4 billion Swiss francs, and thus grew faster than sales, overall costs increased less than sales as a result of a variety of programmes to increase productivity. This had a very positive impact on profitability. The Group's operating profit rose 22% to 14.5 billion Swiss francs, and the corresponding profit margin advanced by 3.5 percentage points to 31.4%. Our Group's strong operating performance, combined with a lower effective tax rate, boosted net income 25% to well over 11 billion Swiss francs. This record income

includes no exceptional items. As a result, the Group's equity ratio and balance sheet were also strengthened further.

Roche's operating profit has more than tripled since 2001, while the operating profit margin has nearly doubled during the same period. This impressive growth is reflected in our Core Earnings per Share, which over the last 5 years has averaged 22% growth annually. In 2007 we achieved 20% Core EPS growth.

Looking to the future, one very positive development is that the portfolio of products driving our business success is much broader now than it was even a few years ago. The Pharmaceuticals Division currently has nine medicines that generate annual revenues of over 1 billion Swiss francs, with six of them producing more than 2 billion Swiss francs in annual sales. And the Diagnostics Division has three product lines that generate revenues of over 1 billion Swiss francs annually. Very importantly, except for CellCept, none of our major products is facing patent expiry over the next several years. In this time we will continue to strengthen our portfolio by launching new medicines – as we did in 2007 with Mircera and as we expect to do soon with Actemra – and by gaining additional new indications for our leading cancer medicines.

In 2007 we further enhanced our ability to innovate in our five main therapeutic areas of interest: oncology, virology, inflammatory diseases, metabolic diseases and diseases of the central nervous system. Each of these areas now encompasses all activities from drug discovery and clinical development to strategic marketing. By streamlining decision-making processes, we believe this fundamentally new approach will enable us to translate research activities into marketed products more efficiently and effectively. During the year we also reinforced our presence in China by opening a clinical development centre for pharmaceuticals in Shanghai. Our pharmaceutical operations in this key emerging market now span the entire value chain from research and clinical development to manufacturing, marketing and distribution.

Construction work on our new biotech manufacturing facilities in Basel (Switzerland) and Penzberg

(Germany) went very quickly, with both buildings being completed on schedule in 2007. These facilities, representing a total investment of 800 million Swiss francs, will help us to meet the steadily growing demand for our cancer medicines Avastin and Herceptin, along with demand for future Roche medicines, over the medium to long term.

In 2007 we continued to invest heavily in new technologies. This included acquiring or entering into alliances with leading companies in pioneering new fields such as DNA sequencing, microarrays, therapeutic antibodies and RNAi therapeutics. Transactions like these open the way to developing new and better diagnostic tests and treatments for complex diseases.

In January 2008 we signed a merger agreement with the US-based diagnostics company Ventana Medical Systems, Inc. The acquisition will enable us to move into the fast-growing market for tissue-based diagnostics. Acquiring Ventana will contribute to our efforts to develop and commercialise personalised healthcare solutions in oncology.

Our strategy remains firmly focused on innovating healthcare. In the medium to long term, our global research network, strengths in biotechnology and leadership as a developer of diagnostic products will remain sources of competitive advantage in a rapidly changing healthcare market, just as they are today. At the same time, we remain committed to combining and balancing our pursuit of innovation with corporate social responsibility. In recognition of this, Roche was selected for inclusion in the Dow Jones STOXX and World Sustainability Indexes for the fourth consecutive year in 2007. And for progress related specifically to protecting the environment, we were honoured with an award for reducing our carbon dioxide emissions relative to sales by over 70% since 1996. Another indication of how integral sustainability and environmental protection are to the way we do business is the fact that over the last decade we have cut our energy use per Swiss franc of sales revenue in half. We believe that sustainable policies and practices not only minimise business risks but also create value and promote innovation.

As previously announced, the Roche Board of Directors has voted to split the positions of Chairman of the Board and Chief Executive Officer. At the Annual General Meeting on 4 March 2008 I will be stepping down as CEO after a decade in the post in order to concentrate on my duties as Chairman. In designating Severin Schwan as Roche's next CEO, the Board has selected an individual who at age 40 already has an impressive track record. Not only will Severin Schwan bring broad international experience to his new role, gained from a variety of divisional and corporate-level assignments, but he is also firmly committed to continuing our strategy of innovation. On 1 January 2008 Jürgen Schwiezer succeeded Severin Schwan as CEO of Roche Diagnostics. Jürgen Schwiezer has decades of experience in the diagnostics business and has been instrumental in establishing Roche as the leader in Europe's *in vitro* diagnostics market. In March Silvia Ayyoubi will join Roche's Corporate Executive Committee as the Group's most senior human resources executive; she will be the first woman ever to serve on the CEC. I am pleased to say that we were able to fill all three of these key positions with people from within our organisation. For my own part, you can be assured that as Chairman I will continue to work closely and energetically with the Board and the Corporate Executive Committee to help achieve Roche's ambitious goals as one of the world's leading healthcare groups.

I would like to take this opportunity to thank the roughly 79,000 Roche employees around the world for their contributions to the Group. Without their professionalism and dedication, Roche would not be the highly successful company it is today.

Significant challenges and opportunities lie ahead for the healthcare industry, and Roche will be able to tackle them with confidence from a position of strength. For 2008 we expect to achieve a high single-digit increase in Group sales, with continued above-market sales growth in both Roche divisions. This excludes government and corporate stockpiling orders for Tamiflu for pandemic use. Most of these orders have been filled over the last several years, so that we anticipate a considerable decrease in pandemic Tamiflu sales in 2008. This year we will again be substantially increasing our investment in research and development, particularly in phase III development projects, in order to capture the full potential of our strong pipeline. At the same time we are aiming for Core EPS for 2008 to remain at least at the same high level as in 2007.

Franz B. Humer

# Roche Group

## Group results

The Roche Group posted record results in 2007. Group sales were up significantly, advancing 10% in local currencies (10% in Swiss francs; 15% in US dollars) to 46.1 billion Swiss francs. This 4.1 billion Swiss franc rise in full-year sales was all organic growth. The Pharmaceuticals Division's sales increased 11% in local currencies (10% in Swiss francs; 15% in US dollars) to 36.8 billion Swiss francs; this was approximately twice the global market growth rate. Demand remained very strong for the cancer medicines Avastin, Herceptin, MabThera/Rituxan, Tarceva and Xeloda. Combined sales of the division's oncology products were up 20% for the year, reinforcing Roche's market leadership in this therapeutic area. Other pharmaceuticals driving growth included Bonviva/Boniva for osteoporosis, CellCept in transplantation, Pegasys in virology and the ophthalmology medicine Lucentis. The Diagnostics Division strengthened its market leadership with sales totalling 9.3 billion Swiss francs, a 6% increase in local currencies (7% in Swiss francs; 12% in US dollars) over 2006. Professional Diagnostics and Applied Science were the business areas posting the strongest growth.

Last year's higher Group sales had a very positive impact on earnings performance. The Group's operating profit increased 22% in local currencies to 14.5 billion Swiss francs. The operating profit margin grew 3.5 percentage points to 31.4%. In the Pharmaceuticals Division, operating profit rose 22% in local currencies to 13.0 billion Swiss francs, with the corresponding margin showing a 3.8 percentage point increase to 35.5%. This margin growth was achieved while the Group continued to significantly increase investments in its strong development pipeline. This is reflected in the Pharmaceuticals Division's higher research and development expenses, which grew 18% in local currencies to 7.6 billion Swiss francs. The Diagnostics Division's operating profit rose 14% in local currencies to 1.6 billion Swiss francs, and its oper-

ating profit margin improved 1.3 percentage points to 17.6%.

Net financial income totalled 834 million Swiss francs, compared with 855 million Swiss francs in 2006. The Group's effective tax rate declined to 25.3% from 27.3%.

Net income increased 25% to 11.4 billion Swiss francs. Core Earnings per Share (Core EPS), which excludes amortisation and impairment of intangible assets, increased by 20% to 11.85 Swiss francs.

The Group's business operations continued to show strong cash generation of 18.5 billion Swiss francs, driven by continued growth in EBITDA. Net cash increased by more than one billion to 17.3 billion Swiss francs.

There was a further significant improvement in the Group's financial position. The ratio of equity to total assets reached 68% (up from 63% in 2006), and over 80% of total assets are now financed long-term.

## Outlook

For 2008 we expect Group sales in local currencies to increase at a high single-digit rate, with above-market sales growth in both divisions. This excludes government and corporate stockpiling orders of Tamiflu for pandemic use. As most of the existing pandemic stockpiling orders have now been filled, we anticipate a significant decrease in Tamiflu sales in 2008.

The progress in our rich clinical development pipeline is especially important to our future growth outlook. Accordingly, we plan to increase research and development spending again significantly in 2008 in order to realise the full potential of our strong development portfolio. The activities this will support include late-stage clinical testing of promising compounds such as pertuzumab

(breast cancer), ocrelizumab (autoimmune disorders), GLP-1 analogue (type 2 diabetes) and the CETP inhibitor (dyslipidemia), and several programmes aimed at expanding the use of our leading anticancer medicines into additional indications.

We anticipate continued strong growth in 2009 and 2010, driven by the launch of Actemra, Mircera and additional new indications for MabThera in rheumatoid arthritis, Avastin and other cancer medicines. Very importantly, we also anticipate pivotal clinical trial data on the use of Avastin in early-stage cancer (adjuvant therapy) by the end of 2009.

Despite anticipated considerably lower Tamiflu sales and significantly higher R&D spending we are aiming for 2008 Core EPS at constant exchange rates to remain at least in line with the record level achieved in 2007.

We expect and intend to continue raising our dividend payout ratio over the next three years.

## Group strategy

### Responding to demographic challenges

Despite significant advances in medicine, the need for innovative new products to diagnose and treat disease is greater than ever. One reason for this is demographic – the fact that the world's population is growing and ageing. As life expectancy increases, so does the incidence of age-related diseases such as cancer, Alzheimer's, diabetes and rheumatoid arthritis. These and other diseases are already placing an ever greater financial burden on healthcare systems. Another factor is that today people are better informed about medical advances and available treatments than they used to be. And well-informed patients and patient organisations can and do influence medical decision-making in ways that add to the overall demand for healthcare services. As a result, there is mounting political pressure to control health spending more effectively. Increasingly, this is also an issue in developing countries, where healthcare systems are massively under-resourced and many patients cannot afford to pay for treatment themselves.

To stay competitive in an increasingly cost-sensitive marketplace, research-based healthcare companies like Roche aim to develop products with health economic as well as clinical benefits. Medicines that extend patients' lives or reduce costly complications and side effects can deliver both. And so can diagnostic tests that help physicians detect diseases earlier and choose the most appropriate therapies for their patients the first time around. This leads to better and more cost-effective outcomes for both patients and healthcare providers.

### Focusing on innovation in therapeutics and diagnostics

At Roche we focus our resources on two research-intensive businesses: pharmaceuticals and diagnostics. Within these businesses we prioritise those areas of significant unmet need where we have the expertise to make a difference. Our aim is to develop new and improved drugs, diagnostic tests and services offering significant benefits over existing options. For this reason, we invest heavily in research and development – 8.4 billion Swiss francs in 2007 alone – and we will continue to do so in future.

The clinical return on this investment has been impressive. As the world leader in *in vitro* diagnostics, we supply a wide range of rapid, reliable instruments and tests for disease screening and diagnosis in laboratories, at the point of care in hospitals and doctors' offices, and for patient self-management. In therapeutics our achievements include developing five anticancer medicines which have been shown to prolong patients' lives. These medicines represent significant advances in a therapeutic area which for decades saw little real progress.

### Research network spurs innovation

Our innovation model relies on the drug and diagnostics research of our own operating divisions augmented by a global collaborative R&D network. Within the Group, our majority-owned subsidiaries Genentech in the United States and Chugai in Japan operate largely independently. This encourages a greater diversity of ideas and approaches, increasing the chances of bringing new products to patients.

To make sure we have broad access to new technologies and products of interest, we also maintain a host of scientific and commercial collaborations with external biotech companies, universities and research organisations around the world. Identifying and investing in important emerging technologies is critical for ensuring the future strength of our product pipeline. Recent investments include an alliance giving us access to Alnylam's RNAi technologies (see page 70) and the acquisitions of 454 Life Sciences, BioVeris Corporation and NimbleGen Systems, Inc., all completed in 2007.

The acquisition of Ventana Medical Systems, Inc., agreed in January 2008, will enable us to move into the fast-growing market for tissue-based diagnostics and strengthen our capabilities for developing companion diagnostic tests. These make it possible to assess or predict patients' responses to particular medicines so that drug therapy can be tailored more specifically, effectively and cost-efficiently to individual patients' needs.

In early 2007 Roche Pharmaceuticals realigned its global research and development activities around five new organisational units known as Disease Biology Areas (DBAs): Oncology, Virology, Inflammation, Metabolism and Central Nervous System. Each DBA covers all activities from research and development to strategic marketing in a particular therapeutic field. By enhancing the flow of information and streamlining decision-making, this realignment will support our efforts to efficiently translate research activity into clinically differentiated medicines (see page 23).

### **Pioneering personalised healthcare**

Two patients can have the same diagnosis yet respond in dramatically different ways to the same medicine. One patient may be helped by treatment, while the other experiences unwanted side effects without the desired clinical benefit. Some of this variability is due to genetic and other biological differences between patients. The idea of personalised medicine is to use insights into these differences at the molecular level to develop treatments and tests tailored to the needs of specific patient populations. This has enormous potential to make healthcare better, safer and more cost-effective.

It will be a while before this potential is fully realised, but the market is clearly shifting away from 'one size fits all' products. Roche is a driving force behind this trend and already has several personalised healthcare products on the market. An important part of personalising medicine will be developing therapeutics and diagnostics that work in tandem. The fact that we are leaders in both these areas is a source of competitive advantage when it comes to meeting the healthcare challenges of the future.

### **Creating sustainable value for all stakeholders**

Our focus is on enduring success. This can only be achieved by adopting and adhering to sustainable business practices. We recognise that we must manage all aspects of our business – whether economic, ethical, social or environmental – in a responsible way. One factor that is vital to our company's long-term prosperity is our ability to recruit and retain the best people (see page 72).

Looking beyond the financial bottom line, we strive to identify and address the societal, environmental and other management issues of greatest importance to our stakeholders. For detailed information on our performance in these areas, see pages 65 to 70 of this report.

We make our greatest contribution to a sustainable future by developing clinically differentiated healthcare products that meet the needs of patients, healthcare providers, payers and society.

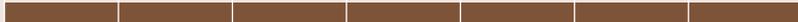
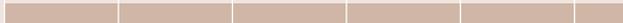


A Roche scientist performing a DNA sequencing experiment

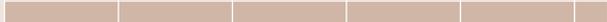
DNA sequencing. In their quest for new ways to fight disease, scientists rely on cutting-edge instruments and highly specific tests. Some of the most innovative tools being used today in the world's top research centres are from Roche. These include a DNA sequencer that is setting new standards in genome research and helping to expand our knowledge of the molecular basis of disease.

## Pharmaceuticals Division in brief

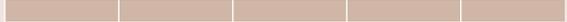
### Sales in millions of CHF

<b>2007</b>		<b>36,783</b>
2006		33,294
2005		27,268

### Operating profit before exceptional items in millions of CHF

<b>2007</b>		<b>13,042</b>
2006		10,545
2005		7,539

### Number of employees

<b>2007</b>		<b>55,091</b>
2006		53,241
2005		49,027

### Key figures

	In millions of CHF	% change in CHF	% change in local currencies	% of sales
Sales	36,783	10	11	100
– Roche Pharmaceuticals	22,970	11	9	63
– Genentech	10,414	14	19	28
– Chugai	3,399	–3	3	9
EBITDA	14,706	21	20	40.0
Operating profit	13,042	24	22	35.5
Research and development	7,598	15	18	20.7

### Pharma Executive Committee 1 January 2008

William M. Burns	CEO Division Roche Pharmaceuticals
George B. Abercrombie	North America
Jennifer M. Allerton	Informatics
Lee E. Babiss	Pharma Research
Henry-Vincent Charbonné	Strategic Marketing
Jean-Jacques Garaud	Development
Peter Hug	Western Europe
Dominic P. Moorhead	Finance and Controlling
Paul A. Newton-Syms	Human Resources
Pascal Soriot	Commercial Operations
Jan van Koeveringe	Technical Operations
Daniel Zabrowski	Pharma Partnering

# Pharmaceuticals

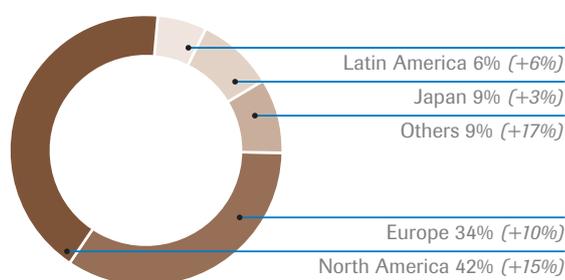
## The Division

The Roche Group's Pharmaceuticals Division is made up of Roche Pharmaceuticals, represented in over 150 countries, and majority shareholdings in Genentech in the United States and Chugai in Japan. Roche cooperates closely with Genentech and Chugai and also maintains licensing or other collaborative agreements with more than 80 companies around the world, giving the Roche Group wide access to promising experimental medicines and cutting-edge technologies.

## Results

The Pharmaceuticals Division continued its strong, above-market performance in 2007. Sales for the full year rose 11% in local currencies and 10% in Swiss francs (15% in US dollars) to 36.8 billion Swiss francs, around twice the global market growth rate (6%)<sup>1)</sup>. Excluding pandemic stockpiling sales of Tamiflu to governments and corporations, pharmaceutical sales grew 13%<sup>2)</sup> for the year. Regional sales growth significantly outpaced the market average in North America (15% vs 5%) and Europe (10% vs 7%). In Japan, at 3%, sales development was slightly below market growth. The major growth drivers were key products in the oncology, transplantation, metabolism/bone and virology franchises, as well as Genentech's ophthalmology medicine Lucentis. The division's operating profit advanced 22% in local currencies to 13.0 billion Swiss francs, and the operating margin 3.8 percentage points to 35.5%. Sales growth and higher royalty and other operating income more than compensated for – in particular – substantially higher research and development expenses, with significant investments in our strong pipeline reflecting the expanded portfolio and

## Sales by region



*Italics = growth rates*

large number of late-stage clinical trials. EBITDA<sup>3)</sup> totalled 14.7 billion francs or 40.0% of sales, compared with 36.5% in 2006. For more information on the division's operating results, see p. 5 of the Finance Report.

Detailed information on the Pharmaceuticals Division is available on the internet at [www.roche.com/div\\_phar](http://www.roche.com/div_phar).

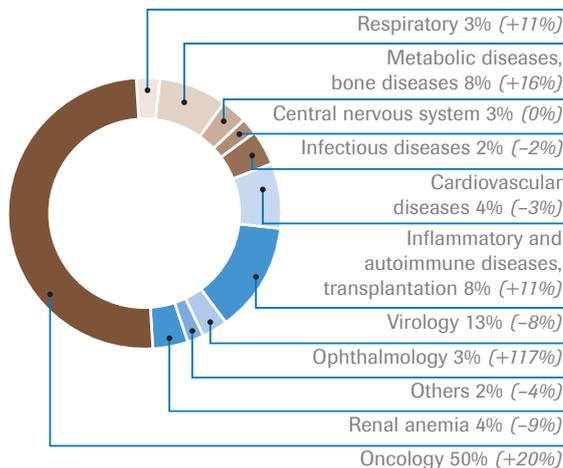
## Therapeutic areas

### Oncology

The Roche Group, including Genentech and Chugai, is the world's leading provider of cancer care products, including anticancer treatments,

- 1) Market growth figures here and elsewhere according to IMS (to end of October 2007).
- 2) Unless otherwise stated, all growth rates are in local currencies.
- 3) Earnings before financial income, financing costs, tax, depreciation and amortisation, including impairment.

## Sales by therapeutic area



*Italics = growth rates*

supportive care products and diagnostics. Our anti-cancer medicines are saving lives and significantly advancing the way some cancers are treated. Our portfolio currently includes five innovative cancer drugs that help patients with breast, colorectal, lung, stomach, kidney and pancreatic cancer, and non-Hodgkin's lymphoma to live longer: MabThera/Rituxan, Herceptin, Avastin, Xeloda and Tarceva are helping to transform cancer treatment, which is moving towards more targeted therapies and the use of biomarkers. We are continuing our extensive development programme to extend the use of our cancer medicines to include other indications and therapeutic combinations.

Sales of the division's oncology portfolio<sup>4)</sup> grew 20% in 2007 and now account for 50% of pharmaceutical sales. Excluding supportive care products, combined sales of cancer therapeutics rose 23%, increasing the Roche Group's share of the global market for cancer medicines to just under 30%.

MabThera/Rituxan (rituximab), for the treatment of patients with non-Hodgkin's lymphoma (NHL), maintained strong sales growth throughout 2007. Increases were driven by the use of MabThera for maintenance treatment in follicular lymphoma, the most common form of indolent lymphoma,

as well as first-line treatment for indolent forms of the disease in all markets, particularly in Europe/Rest of World (RoW)<sup>5)</sup>. This growth was supported by strong uptake of first-line treatment of patients with aggressive NHL in emerging markets. In January 2008 the European Commission approved an application filed by Roche last July to extend the product's existing first-line indolent lymphoma indication to include the use of MabThera with any chemotherapy combination. The expanded indication makes treatment with MabThera available to a wider group of patients across Europe.

Sales of Herceptin (trastuzumab), which is designed to treat a particularly aggressive form of tumour (HER2-positive) that accounts for 20–30% of all breast cancers, continued to deliver strong growth throughout the year. This performance was primarily driven by growth in the adjuvant (early-stage) breast cancer segment in Germany, France, Italy, Spain and the United Kingdom, the top five European markets. Due to earlier, rapid adoption of Herceptin for adjuvant treatment, the product's market penetration in the United States stabilised at a high level during 2007. In the metastatic setting, adoption rates and treatment duration remained stable both in the US and in the top five European markets. New data from the NeoAdjuvant Herceptin (NOAH) study released in June show that treatment with Herceptin to reduce tumour size before surgery helps eradicate HER2-positive tumours and may reduce the need for breast removal. These results add to the substantial evidence supporting Herceptin as the foundation of care for women with HER2-positive breast cancer at all stages of the disease. In May Roche gained EU approval for the use of Herceptin in combination with hormonal therapy (aromatase inhibitor) for the treatment of patients with metastatic breast cancer that is both HER2-positive and hormone receptor-positive.

4) Oncology portfolio (main products): MabThera/Rituxan, Herceptin, Avastin, Xeloda, Tarceva, NeoRecormon, Kytril, Neutrogen, Neupogen, Bondronat, Roferon-A, Furtulon, Vesanoid.

5) Roche defines Europe/Rest of World as covering Europe and all other countries except Japan and the United States.

### A broad commitment to fighting cancer

Cancer type	Marketed products	Products in clinical development phase II and III (including additional indications for marketed products)
Gastrointestinal tract <sup>1)</sup>	Avastin, Furtulon, Tarceva, Xeloda	Avastin, Herceptin, Xeloda
Breast	Avastin, Furtulon, Herceptin, Xeloda	Avastin, pertuzumab, trastuzumab-DM1, Xeloda
Lung	Avastin, Tarceva	Avastin, Apomab, Apo2L/TRAIL, Tarceva
Blood and immune system <sup>2)</sup>	MabThera/Rituxan, Vesanoïd	Avastin, MabThera/Rituxan, anti-CD40, Apomab, Apo2L/TRAIL
Genitourinary system <sup>3)</sup>	Avastin, Furtulon, Roferon-A	Avastin, pertuzumab, R3484
Skin and soft tissue		R1507, Apomab
Brain		Avastin
Childhood cancers		R1507, Xeloda
Supportive care	Bondronat, Kytril, NeoRecormon, Neulastim, Neupogen, Neutrogen	C.E.R.A., Epogin

1) Includes colon, rectum, stomach, pancreas, liver.

2) Includes non-Hodgkin's lymphoma, chronic lymphocytic leukemia, acute promyelocytic leukemia.

3) Includes kidney, prostate, ovary, cervix.

For more information on development projects see *R&D pipeline* (fold-out) and *Major development activities*, p. 25.

For information on Roche clinical trials, visit the Roche clinical trial registry: [www.roche-trials.com](http://www.roche-trials.com). See also *Clinical trial registry and results database* on p. 69 of this report.

Avastin (bevacizumab), the first antiangiogenic therapy to demonstrate overall and/or progression-free survival benefits in patients with colorectal, lung, breast and kidney cancer, continued to record strong sales growth in all regions. Sales growth in the United States was driven primarily by increased use in advanced non-small cell lung cancer (NSCLC). In Europe sales growth was boosted by further uptake of the product in the metastatic colorectal cancer setting. In March the European authorities approved Avastin for the treatment of metastatic breast cancer in combination with chemotherapy (paclitaxel). The approval is based on clinical trial data showing that patients have the chance to live twice as long without their cancer progressing if treated with Avastin plus paclitaxel, compared with paclitaxel alone. Avastin was approved in April in Japan for advanced or recurrent colorectal cancer and in August in Europe, in combination with platinum-based chemotherapy, for the treatment of advanced NSCLC. Avastin is the first medicine to prolong the life of NSCLC

patients beyond one year. In December the EU authorities approved Avastin in combination with interferon for the treatment of advanced renal cell carcinoma, the most common form of kidney cancer. Also in December the EU's Committee for Medicinal Products for Human Use (CHMP) recommended widening the product's existing marketing authorisation in advanced colorectal cancer to allow it to be combined with any chemotherapy in any line of therapy; subject to final approval by the European Commission, the updated marketing approval will offer patients a significantly greater range of treatment options.

In August Genentech resubmitted its supplemental marketing application to the US Food and Drug Administration (FDA) for use of Avastin in combination with paclitaxel as first-line treatment of patients with locally recurrent or metastatic breast cancer. In December the agency's Oncologic Drugs Advisory Committee voted five to four that the data are not sufficient to establish a favourable risk/benefit analysis for Avastin in this setting. Genentech will continue to work with the FDA to make Avastin available for US breast cancer patients. The FDA is expected to make a decision on the application by 23 February 2008.

## Focus on cancer

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**Cancer is a major healthcare challenge. Globally, more than 11 million people are diagnosed with cancer every year. This number is expected to rise to 16 million by 2020, representing an increase in new cases of almost 50%. Cancer is one of the main causes of death in industrialised countries. In Europe alone, one in three people can expect to develop cancer in their lifetime.**

**Although the unmet medical need remains high, earlier diagnosis and innovative drugs such as those in the Roche portfolio mean that more patients are being cured and those with terminal cancers are living longer. Experts believe that nearly one-third of the decline in cancer mortality rates seen in 20 countries (including the US and Europe) between 1995 and 2003 is due to the uptake of new anti-cancer medicines.**

Cancer is an abnormal growth of cells that proliferate through uncontrolled cell division. As they multiply, these malignant cells invade and disrupt surrounding tissues and may spread (metastasise) to more distant parts of the body. Cancer is not one disease but a group of more than 100 distinct disorders. The Roche Group supplies medicines that can help patients with some of the most common and serious of these:

**Non-Hodgkin's lymphoma**, a group of over 30 cancers that affect the lymphatic system, has grown in incidence by 80% since the early 1970s. This class of cancer currently affects over 1.5 million people worldwide. (→MabThera/Rituxan)

**Lung cancer** accounts for an estimated 1.2 million new cases annually. It is the most common form of cancer worldwide and the leading cause of cancer deaths. Non-small cell lung cancer is the most common form of lung cancer, accounting for approximately 80% of all cases. (→Tarceva, Avastin)

**Breast cancer** is the most common cancer among women worldwide, with over 1 million women newly diagnosed and over 500,000 dying from the disease each year. There are different types of breast cancer, and knowledge of tumour characteristics is important for treatment decisions. (→Herceptin, Xeloda, Avastin)

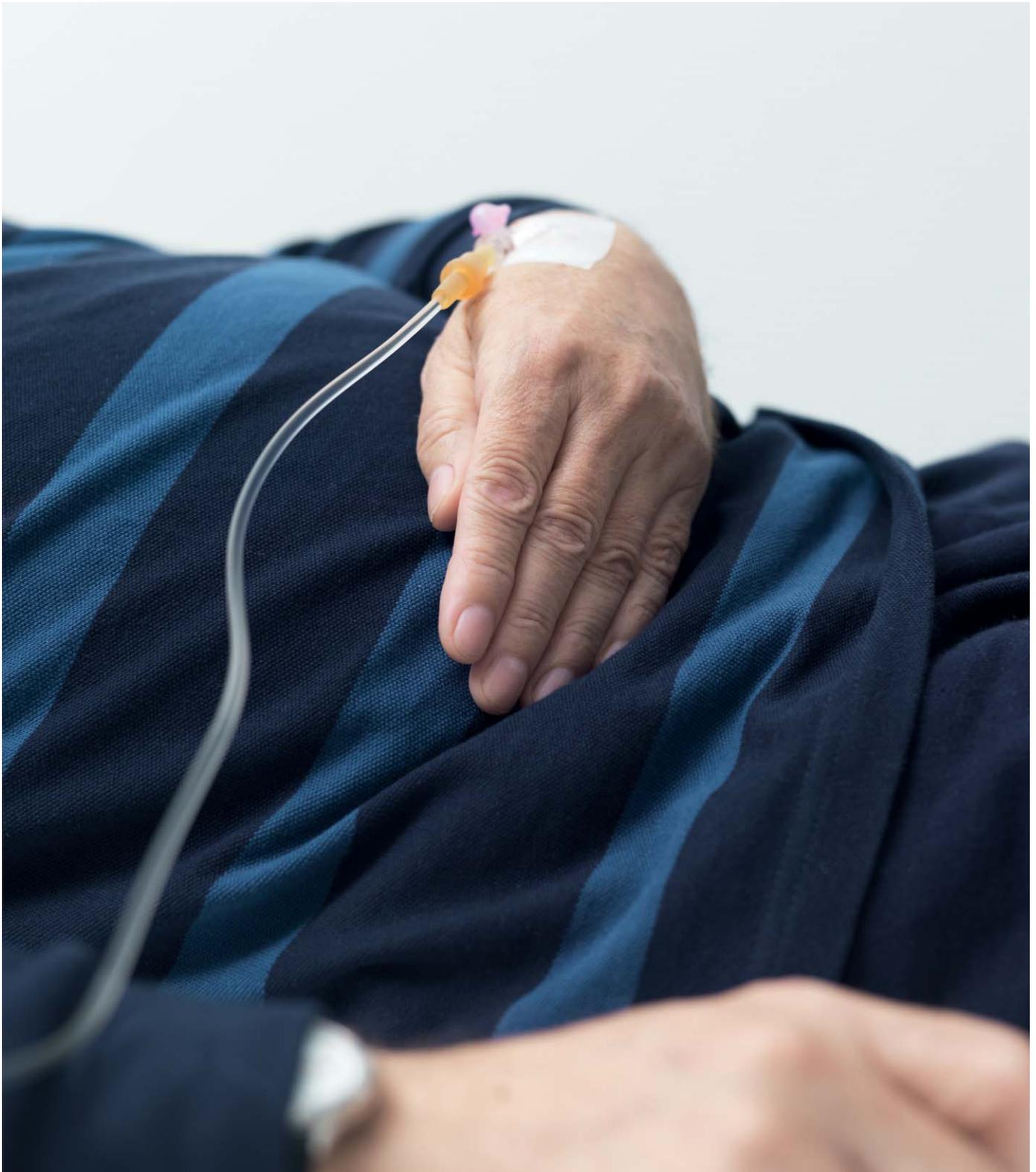
**Colorectal cancer** – cancer of the large intestine or rectum – accounts for over 1 million new cases (around 10% of all newly diagnosed cancers) worldwide each year. It is the second most common cause of cancer deaths in Europe. The main treatment is surgery, which may also be combined with radiotherapy and chemotherapy. (→Avastin, Xeloda)

**Stomach cancer** accounts for close to 1 million new cases and 700,000 deaths each year, making it the second-largest cause of cancer deaths worldwide. The vast majority of stomach cancer cases occur in Asia, where, with lung cancer, it is the leading malignancy. (→Xeloda)

**Kidney cancer** is newly diagnosed in around 200,000 people and causes 100,000 deaths worldwide every year, rates that are expected to increase. Kidney cancer is more common in men, and its incidence increases with age. Renal cell carcinoma accounts for 90% of all kidney cancers. (→Avastin, Roferon-A)

**Pancreatic cancer** is a particularly aggressive disease that is extremely difficult to treat. It is often resistant to chemotherapy and radiotherapy and tends to spread quickly to other parts of the body. It kills a higher proportion of patients in the first year after diagnosis than any other cancer. The fifth leading cause of cancer deaths in the developed world, pancreatic cancer claims nearly 80,000 lives every year. (→Tarceva)

In addition, the Group's researchers are working on new therapeutic approaches to improve cancer care (see *Research and development*, p. 23; *R&D pipeline*, p. 25 (fold-out); *A broad commitment to fighting cancer*, table, p. 15).



A patient receiving an anticancer medicine by infusion

Cancer. A disease that takes many forms and one of the leading causes of death worldwide. This is an area where Roche is working especially hard to discover new treatments. Right now we have five cancer-fighting medicines on the market that have been shown to help patients to live longer – more than any other healthcare company.

Xeloda (capecitabine), an oral anticancer medicine that greatly simplifies treatment, recorded double-digit sales growth in 2007, with the main contributions coming from the US (+19%) and Europe/RoW (+19%). Sales were boosted by EU approval of Xeloda for the treatment of advanced gastric (stomach) cancer and by positive data on its use in colorectal cancer. In December the CHMP recommended approval of an application filed by Roche in April to broaden the product's EU marketing authorisation to allow Xeloda to be used in any therapeutic combination in any line of metastatic (advanced) colorectal cancer treatment, including combinations with Avastin. The FDA is currently reviewing Roche's application for US approval of Xeloda in combination with oxaliplatin, with or without Avastin, for first-line treatment and in combination with oxaliplatin for second-line treatment of metastatic colorectal cancer. In December Chugai received approval in Japan for Xeloda as therapy for adjuvant (post-surgery) colon cancer. Five-year follow-up data from the X-ACT trial presented at the European Cancer Conference (ECCO) in September show that patients with advanced colon cancer whose disease has progressed live longer when taking Xeloda compared with intravenous 5-fluorouracil plus folinic acid, the current standard treatment. In addition, data from a major trial in breast cancer published in December show that Xeloda in combination with Herceptin and docetaxel extended survival in HER2-positive patients by a further five months.

Tarceva (erlotinib), a targeted drug with proven survival benefit in advanced non-small cell lung cancer (NSCLC) and advanced pancreatic cancer, grew strongly over the previous year, mainly thanks to increased uptake in NSCLC and launches in additional countries. Tarceva was launched in China early in 2007, and in December Chugai launched the product in Japan for the second- and third-line treatment of NSCLC. Tarceva is now approved in 87 countries worldwide for the second- and third-line treatment of patients with advanced NSCLC. The EU launch in pancreatic cancer also contributed to Tarceva's strong performance. Tarceva is currently approved in more than 60 countries for patients with this difficult to treat disease, with further approvals anticipated in 2008.

## Anemia

Erythropoietin, a hormone produced in the kidneys, stimulates the bone marrow to produce red blood cells. Anemia occurs when the level of red blood cells and/or the hemoglobin they contain falls below normal, starving organs and tissues of oxygen. Common symptoms include fatigue, weakness, rapid heart beat, breathlessness, dizziness and feeling cold. Anemia is seen in more than 80% of patients with chronic kidney (renal) disease, a condition that affects more than 500 million people worldwide. Anemia affects three out of four cancer patients undergoing chemotherapy. Patients with untreated anemia may need blood transfusions. The potential long-term effects of anemia include cardiovascular disease in renal patients, while in patients with cancer it is associated with reduced survival and diminished quality of life.

Combined sales of the erythropoietin-stimulating agents (ESAs) NeoRecormon and Epogin (epoetin beta) from Roche and Chugai, respectively, declined in a market that remains highly competitive due to pricing pressure from branded competitors and the entry of biosimilar versions of epoetin alfa in Europe. While the decline in NeoRecormon sales was slight, sales of Epogin in Japan were affected by competitive pricing pressures and, in the first quarter, the residual impact of government-mandated price cuts and reimbursement changes.

Following EU marketing approval in July, Mircera (methoxy polyethylene glycol-epoetin beta), Roche's innovative continuous erythropoietin receptor activator for the treatment of anemia associated with chronic kidney disease (CKD), has now been launched in Germany, the United Kingdom, Ireland, Sweden, Austria, Slovenia and Hungary, as well as Norway and Switzerland. Initial sales have been in line with expectations. In November, the FDA approved Mircera for the same indication, and further applications for marketing approval are pending worldwide. Mircera allows stable hemoglobin levels with once-monthly dosing during maintenance treatment. It enables correction of anemia with twice-monthly dosing and direct conversion from dosing schedules of up to three times a week with other ESAs to once-monthly dosing in all CKD patients.

**Top-selling pharmaceutical products – Roche Group**

Product	Generic name	Indication	Sales in millions of CHF	% change in local currencies
MabThera/Rituxan	rituximab	non-Hodgkin's lymphoma, rheumatoid arthritis	5,516	15
Herceptin	trastuzumab	HER2-positive breast cancer	4,852	23
Avastin	bevacizumab	colorectal cancer, non-small cell lung cancer, breast cancer, kidney cancer	4,106	41
NeoRecormon, Epogin	epoetin beta	anemia	2,094	-7
Tamiflu	oseltamivir	treatment and prevention of influenza A and B	2,085	-19
CellCept	mycophenolate mofetil	transplantation	2,012	10
Pegasys	peginterferon alfa-2a	hepatitis B and C	1,637	11
Xeloda	capecitabine	colorectal cancer, breast cancer, stomach cancer	1,151	19
Tarceva	erlotinib	advanced non-small cell lung cancer, advanced pancreatic cancer	1,062	31
Lucentis <sup>1)</sup>	ranibizumab	wet age-related macular degeneration	991	117
Boniva/Boniva	ibandronic acid	osteoporosis	887	85
Xenical	orlistat	weight loss, weight control	632	-10
Xolair <sup>1)</sup>	omalizumab	asthma	567	10
Valcyte, Cymevene	valganciclovir, ganciclovir	cytomegalovirus infection	542	12
Pulmozyme	dornase alfa/DNase	cystic fibrosis	483	12
Nutropin	somatropin	growth hormone deficiency	470	-1
Kytril	granisetron	nausea and vomiting induced by chemotherapy or radiation therapy or following surgery	425	-12
Neutrogin	lenograstim	neutropenia associated with chemotherapy	405	13
Rocephin	ceftriaxone	bacterial infections	399	-4
Activase, TNKase	alteplase, tenecteplase	acute myocardial infarction (heart attack)	382	9

1) Jointly marketed by Genentech and Novartis.

In October a US District Court in Massachusetts found in favour of Amgen in a patent infringement lawsuit brought by Amgen relating to Mircera. Roche is currently evaluating its legal options, including the possibility of an appeal.

**Transplantation**

Each year, around 70,000 organ transplants are performed worldwide. As medical science extends the life expectancy of patients with transplanted organs, demand continues to increase for safe, effective immunosuppressants to control transplant rejection and for medicines to combat infections associated with transplantation. Roche continues to support research in this field through the Roche Organ Transplantation Research Foundation.

CellCept (mycophenolate mofetil) is the world's most widely used immunosuppressant medication. Revenue growth in 2007 was driven by solid sales in both the US and Europe, based on physicians' recognition of the long-term protective benefits of CellCept compared with other, more toxic therapies.

**Virology**

Influenza, or flu, is a highly contagious, potentially fatal viral illness that occurs mainly in the autumn and winter months in temperate climates and year-round in tropical areas. It is particularly dangerous for young children, the elderly and people with chronic health problems. Each year, 100 million people fall ill with the flu in Europe, Japan and the US alone. Influenza outbreaks occur every year, and

**Major regulatory filings in 2007<sup>1)</sup>**

Product	Generic name	Indication and/or dosage form	Country
Actemra	tocilizumab	rheumatoid arthritis signs and symptoms	EU, USA, Switzerland
Avastin	bevacizumab	advanced renal cell carcinoma (kidney cancer)	EU, Switzerland
		metastatic colorectal cancer, first-line, combination with oxaliplatin	EU, Switzerland
		metastatic breast cancer, first-line <sup>2)</sup>	USA
Tamiflu	oseltamivir	lower-strength capsules for use in children	EU, USA, Switzerland
Xeloda	capecitabine	metastatic colorectal cancer, first- and second-line, combination treatment	EU, USA, Switzerland

**Major regulatory approvals in 2007<sup>1)</sup>**

Avastin	bevacizumab	metastatic breast cancer, first-line	EU
		first-line non-small cell lung cancer	EU, Switzerland
		metastatic colorectal cancer	Japan
		advanced renal cell carcinoma (kidney cancer)	EU
Herceptin	trastuzumab	combination with hormonal therapy in HER2-positive and hormone receptor co-positive metastatic breast cancer	EU, Switzerland
Mircera	methoxy polyethylene glycol-epoetin beta	anemia associated with chronic kidney disease	EU, USA, Switzerland
Pegasys + Copegus	peginterferon alfa-2a + ribavirin	chronic hepatitis C infection	Japan
Sigmat	nicorandil	acute heart failure	Japan
Tamiflu	oseltamivir	lower-strength capsules for use in children	EU, USA
Tarceva	erlotinib	metastatic pancreatic cancer in combination with gemcitabine	EU
		nonresectable, recurrent and advanced non-small cell lung cancer	Japan
Xeloda	capecitabine	adjuvant colon cancer	Japan
		gastric (stomach) cancer	EU

1) Includes supplemental indications.

2) Resubmission to FDA.

while their extent and severity vary widely, it is estimated that more than 500,000 people globally die each year from the disease or its complications. Pandemics, or global epidemics, occur every 10 to 40 years. The World Health Organization (WHO) and medical experts believe that the next influenza pandemic is imminent.

Sales of the anti-influenza medicine Tamiflu (oseltamivir) declined sharply in the second half of

2007 due to the completion of most of the existing pandemic stockpiling orders from governments and corporations. Guidelines issued by the WHO in 2007 have reinforced the position of Tamiflu as the treatment of choice for avian influenza. Seasonal sales of Tamiflu in Japan were negatively affected by restrictions imposed by the authorities on the use of the medicine in adolescents. This was compensated, however, by a substantial increase in pandemic sales to the Japanese government.



A patient being treated with CellCept following liver transplantation

Transplantation. Worldwide approximately 70,000 organ transplants are performed each year. Thanks to medical advances, the life expectancy of kidney, liver and heart transplant recipients has increased dramatically. Medicines from Roche have played an important role here, helping to prevent organ rejection and effectively fighting infection following transplantation.

The global manufacturing network put in place by Roche can produce 400 million treatment courses of Tamiflu annually, if required. Production levels have been tailored to current demand but can be increased should the need arise. In July and September respectively, Roche received marketing approvals in US and Europe for a smaller, lower-strength capsule formulation of Tamiflu intended primarily for use in children.

The hepatitis B and C viruses (HBV, HCV), which are commonly transmitted through blood-to-blood contact, cause acute and chronic liver disease, potentially leading to liver failure, cirrhosis and liver cancer. Worldwide, 350 million people are thought to be chronically infected with HBV, a highly infectious virus that is responsible for an estimated 1 million deaths annually. More than 170 million people around the world are infected with HCV, and 3 to 4 million new cases occur each year. Hepatitis C is the main reason for liver transplantation.

Throughout 2007, sales of Pegasys (peginterferon alfa-2a), for the treatment of hepatitis B and C remained strong despite an overall decline in market volume in the US and Western Europe. Growth was particularly strong in emerging markets such as China and Turkey. Copegus (ribavirin) sales were up 6% compared with 2006, as the launch in Japan more than outweighed declines due to generic competition in the United States and Europe/RoW. There has been a positive market response in Japan to the rollout of combined Pegasys plus Copegus for hepatitis C. Final results from a landmark study in previous non-responders, presented at the annual meeting of the American Association for the Study of Liver Diseases in November, show that Pegasys plus Copegus is a promising treatment option for patients who have failed to respond to treatment with another anti-HCV medicine.

With its proven medicines and diagnostic tests, Roche contributes to the global effort to combat HIV and AIDS. We also continue to help improve the standard of HIV care worldwide by initiating and supporting projects that can make a difference at the local level. For information on initiatives by Roche to help expand access to HIV/AIDS

treatment in the developing world, see *Access to healthcare* (p. 61) and visit <http://www.roche.com/home/sustainability>.

Roche's HIV medicines Fuzeon (enfuvirtide) and Invirase/Fortovase (saquinavir) recorded steady growth throughout 2007. In October the European Commission reinstated the suspended marketing authorisation for the HIV medication Viracept (nelfinavir) in the European Union. This followed the recall of Viracept earlier in the year in all markets where Roche supplies the product, following the discovery of higher than usual levels of a chemical impurity in some production batches. See also *Product quality and patient safety*, p. 68.

Combined sales of Valcyte (valganciclovir) and Cymevene (ganciclovir), the standard of care for the treatment of cytomegalovirus infection in transplant patients and people with HIV/AIDS, again grew strongly in 2007.

### **Inflammatory and autoimmune diseases**

Rheumatoid arthritis (RA) is a systemic autoimmune disease that affects people of all ages and can have a major impact on quality of life. It is characterised by chronic inflammation (mainly of the joints), pain and fatigue. The exact cause of RA is unknown, and as yet there is no cure. Even when treated, it can result in progressive joint destruction and loss of mobility. Within two years of developing RA, up to 70% of patients have X-ray evidence of joint damage, and after ten years fewer than 50% can continue to work or function normally on a day-to-day basis. RA is thought to affect over 21 million people worldwide. The main objective of treatment is remission. In addition to established treatments such as disease-modifying anti-rheumatic drugs (DMARDs) and tumour necrosis factor (TNF) inhibitors, selective B cell targeting with MabThera/Rituxan, a new and highly effective therapeutic approach developed by Roche and Genentech, is now available to RA patients.

Adoption by physicians of MabThera/Rituxan, the first and only selective B cell therapy for the treatment of rheumatoid arthritis (RA) in patients who have an inadequate response to or can not tolerate TNF inhibitors, continued to increase

throughout 2007. The product has now been launched in the major European markets, North and Latin America, and other markets worldwide. Data published in May show that, in patients whose RA had not responded adequately to TNF inhibitor therapy, treatment with MabThera controlled disease activity more effectively than switching to an alternative TNF inhibitor. In February new data were added to the European prescribing information on the ability of MabThera to significantly slow progression of joint damage in patients with inadequate response or intolerance to TNF inhibitor therapy. In August MabThera was recommended by the National Institute for Clinical Excellence (NICE) in England and Wales, making it the first and only therapy recommended by the Institute for patients with an inadequate response to at least one TNF inhibitor.

Actemra (tocilizumab) is a first-in-class humanised monoclonal antibody designed to block the effects of interleukin-6 (IL-6), a key protein involved in the inflammation that drives RA. In 2007 four phase III trials reported significant clinical benefits for a wide range of RA patients who received Actemra. Based on these results, Roche filed marketing applications for Actemra in RA in the US and the EU in November. The Japanese authorities are reviewing an application filed by Chugai in 2006 for approval of Actemra in adult RA and systemic onset juvenile idiopathic arthritis.

### Metabolic disorders

Osteoporosis is a systemic skeletal disease characterised by a loss of bone mass, leading to bone weakness and a susceptibility to fracture. There are often no warning signs before a fracture occurs, which is why osteoporosis is sometimes called 'the silent disease'. Osteoporosis affects millions of people worldwide, with one in three postmenopausal women and one in five men over the age of 50 affected.

Bonviva/Boniva (ibandronic acid) is the first and only once-monthly oral bisphosphonate approved for the treatment of postmenopausal osteoporosis. In a highly competitive market, sales of Bonviva/Boniva continued to show strong growth. The majority of sales were in the US, where the product's

market share (total prescriptions) increased to over 15%. Sustained growth was also helped by successful launches of Bonviva once-monthly tablets in France and Spain, additional launches of Bonviva Injection, and new efficacy data showing that the product can reduce the risk of non-vertebral fractures (fractures at sites other than the spine).

Sales of the prescription weight-loss medication Xenical (orlistat 120 mg) declined worldwide, especially in the United States, where Roche's partner GlaxoSmithKline successfully launched non-prescription orlistat 60 mg under the brand name *alli* in June. As licensor, Roche receives royalties on sales of *alli* in the US. GSK has exclusive rights to market non-prescription formulations of orlistat globally, except in Japan.

## Research and development

To strengthen the Group's innovation capacity and drive the development of personalised medicines, Roche Pharmaceuticals implemented a major reorganisation of its research and development activities in July. The new organisation, which is built around five Disease Biology Areas (DBAs) – Oncology, Virology, Inflammation, Metabolism and Central Nervous System – will enhance interfaces and streamline decision-making, while helping us to manage our expanding portfolio more efficiently and meet increasingly complex regulatory requirements.

The DBAs are responsible for selecting and managing compounds from drug discovery through to medical proof of concept (normally in phase II of clinical development). A new Clinical Research and Exploratory Development function provides earlier and closer interaction between basic research and clinical development, while a dedicated interface with the Diagnostics Division will ensure diagnostics input throughout the drug development process. Each DBA is managed by a leadership team located at one site, representing Discovery, Clinical Research and Exploratory Development, Clinical Development and Strategic Marketing.

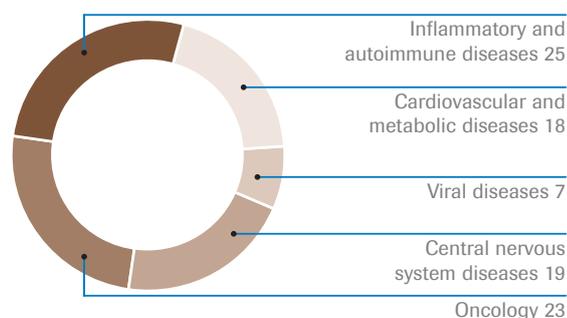


A hepatitis C patient giving herself a Pegasys injection

Hepatitis. Acute or chronic inflammation of the liver, usually viral in origin. Worldwide over half a billion people are thought to be infected with hepatitis B or hepatitis C viruses. Complications of hepatitis include cirrhosis, cancer and liver failure. Advances in interferon therapy developed at Roche have significantly improved the prognosis of patients with hepatitis. For example, the desired response in treating hepatitis C – sustained elimination of the infecting virus – is achieved in the majority of patients.

## Fold-out: R&D pipeline

### Roche Pharmaceuticals – 92 research projects in major therapeutic areas (January 2008)



### R&D pipeline

In 2007 the Pharmaceuticals Division filed 14 major new marketing applications and gained 18 major regulatory approvals. At the beginning of 2008 the Division's R&D pipeline comprised 115 clinical projects, including 57 new molecular entities (NMEs) and 58 additional indications. Thirty-four NMEs are currently in phase I, 19 in phase II and four in phase III or filed for regulatory review. In 2007 the total number of late-stage projects (NMEs and additional indications) increased from 47 to 50.

Roche Pharmaceuticals currently has 92 projects in preclinical research across five therapeutic areas and 85 development projects in six therapeutic areas, including nine in phase 0 (transition from preclinical to clinical development).

In 2007 ten Roche-managed projects were either terminated or reverted to our R&D partners. Of these, six were in phase I and four in phase II. No phase III projects were discontinued during the year.

See fold-out chart (this page) for details of the Roche R&D pipeline. Quarterly pipeline updates are posted at [www.roche.com/inv\\_pipeline](http://www.roche.com/inv_pipeline).

### Pharma Partnering update

Licensing activities in 2007 further strengthened Roche Pharmaceuticals' R&D portfolio and ex-

tended the company's technology base. In July Roche formed a major alliance with Alnylam Pharmaceuticals, giving Roche access to Alnylam's ribonucleic acid interference (RNAi) technology. RNAi is a potential foundation for an entirely new class of human therapeutic products (see *New technologies*, p. 70). Alnylam's site in Germany has now become Roche's centre of excellence in RNAi therapeutics discovery. To expand the company's therapeutic antibody research, Roche acquired Therapeutic Human Polyclonals Inc. in April.

Other major transactions included a partnership with Transgene to develop therapeutic vaccines against human papilloma virus-mediated diseases and a licensing agreement with Toyama Chemical to develop Toyama's novel oral rheumatoid arthritis agent (T-5224, R7277). In December Roche decided to opt in to Genentech's trastuzumab-DM1 programme (T-DM1, R3502), currently in phase II clinical testing. T-DM1 is a conjugate of trastuzumab, the active ingredient of Herceptin, with the cytotoxic agent DM1. The conjugate has the potential to be more effective than Herceptin alone in HER2-positive breast cancer.

A total of 44 new agreements were signed in 2007, including five product transactions and 30 research and technology collaborations.

To find out more about Roche's partnering activities, visit [http://www.roche.com/div\\_collphar](http://www.roche.com/div_collphar).

### Major development activities

#### Oncology

As the world's leading provider of cancer medicines, the Roche Group is committed to the fight against cancer. Together with our partners, we are working to develop new therapeutic approaches to improve and extend the lives of cancer patients. In 2007 we made significant progress in both early- and late-stage programmes aimed at developing new cancer therapies or new uses for our existing products.

MabThera/Rituxan is being evaluated in two phase III trials as a first-line treatment and as therapy for relapses in patients with chronic lymphocytic leukemia, the most common form of adult

## R + D pipeline – improvements in quality and focus

Therapeutic area	Project ID	Project/product (generic name)	Pharmacological class	Indication	Phase	Partner
Oncology	■ R435	Avastin (bevacizumab)	anti-VEGF monoclonal antibody	metastatic breast cancer (1st line) – combo paclitaxel	filed US	Genentech
	■ R435	Avastin (bevacizumab)	anti-VEGF monoclonal antibody	metastatic colorectal cancer (1st line) – combo extension	filed EU	Genentech
	■ R340	Xeloda (capecitabine)	fluoropyrimidine	metastatic colorectal cancer (1st line) – combo	filed US, EU	
	■ R340	Xeloda (capecitabine)	fluoropyrimidine	metastatic colorectal cancer (2nd line) – combo	filed US, EU	
	■ R435	Avastin (bevacizumab)	anti-VEGF monoclonal antibody	renal cell carcinoma	III, approved EU	Genentech
	■ R435 +	Avastin+Herceptin (bevacizumab+trastuzumab)	anti-VEGF monoclonal antibody + anti-HER2 monoclonal antibody	metastatic breast cancer (1st line) – HER2-positive	III	Genentech
	■ R597	Herceptin (trastuzumab)	anti-HER2 monoclonal antibody	pancreatic cancer	III	Genentech
	■ R435	Avastin (bevacizumab)	anti-VEGF monoclonal antibody	ovarian cancer (1st line)	III	Genentech
	■ R435	Avastin (bevacizumab)	anti-VEGF monoclonal antibody	prostate cancer, hormone-refractory	III	Genentech
	■ R435	Avastin (bevacizumab)	anti-VEGF monoclonal antibody	metastatic breast cancer (1st line) – combo docetaxel	III	Genentech
	■ R435	Avastin (bevacizumab)	anti-VEGF monoclonal antibody	metastatic breast cancer (1st line) – combo standard chemotherapies	III	Genentech
	■ R435	Avastin (bevacizumab)	anti-VEGF monoclonal antibody	metastatic gastric cancer	III	Genentech
	■ R435	Avastin (bevacizumab)	anti-VEGF monoclonal antibody	adjuvant colon cancer	III	Genentech
	■ R435	Avastin (bevacizumab)	anti-VEGF monoclonal antibody	adjuvant non-small cell lung cancer (NSCLC)	III	Genentech
	■ R435 +	Avastin+MabThera (bevacizumab+rituximab)	anti-VEGF monoclonal antibody + anti-CD20 monoclonal antibody	adjuvant breast cancer (HER2-negative)	III	Genentech
	■ R105	MabThera/Rituxan (rituximab)	anti-CD20 monoclonal antibody	aggressive non-Hodgkin's lymphoma	III	Genentech
	■ R105	MabThera/Rituxan (rituximab)	anti-CD20 monoclonal antibody	gastric cancer, HER2-positive	III	
	■ R105	MabThera/Rituxan (rituximab)	anti-CD20 monoclonal antibody	chronic lymphocytic leukemia (1st line)	III	
	■ R105	MabThera/Rituxan (rituximab)	anti-CD20 monoclonal antibody	chronic lymphocytic leukemia, relapsed	III	Genentech and Biogen Idec
	■ R1415	Tarceva (erlotinib)	EGFR inhibitor	indolent non-Hodgkin's lymphoma – maintenance (1st line)	III	Genentech and Biogen Idec
	■ R1415	Tarceva (erlotinib)	EGFR inhibitor	NSCLC (1st line) – maintenance	III	Genentech and OSI Pharmaceuticals
	■ R1415 +	Tarceva+Avastin (erlotinib+bevacizumab)	EGFR inhibitor + anti-VEGF monoclonal antibody	adjuvant NSCLC	III	Genentech and OSI Pharmaceuticals
	■ R435	Tarceva+Avastin (erlotinib+bevacizumab)	EGFR inhibitor + anti-VEGF monoclonal antibody	NSCLC (1st line) – maintenance	III	Genentech and OSI Pharmaceuticals
	■ R1415 +	Tarceva+Avastin (erlotinib+bevacizumab)	EGFR inhibitor + anti-VEGF monoclonal antibody	NSCLC (2nd line)	III	Genentech and OSI Pharmaceuticals
	■ R435	Xeloda (capecitabine)	fluoropyrimidine	adjuvant breast cancer	III	
	■ R340	Xeloda (capecitabine)	fluoropyrimidine	adjuvant colon cancer – combo oxaliplatin	III	
	■ R340	Xeloda (capecitabine)	fluoropyrimidine	adjuvant colon cancer – combo Avastin	III	
	■ R1273	(pertuzumab)	HER2 dimerisation inhibitor	metastatic breast cancer, HER2-positive (1st line)	II	Genentech
	■ R1273	(pertuzumab)	HER2 dimerisation inhibitor	ovarian cancer	II	Genentech
	■ R1273	(pertuzumab)	HER2 dimerisation inhibitor	adjuvant breast cancer, HER2-positive	II	Genentech
	■ R3502	Trastuzumab-DM1	anti-HER2 monoclonal antibody-cytotoxic conjugate	metastatic breast cancer, HER2-positive	II	Genentech
	■ R435	Avastin (bevacizumab)	anti-VEGF monoclonal antibody	NSCLC, squamous	II	Genentech
	■ R435	Avastin (bevacizumab)	anti-VEGF monoclonal antibody	NSCLC with previously treated CNS metastases	II	Genentech
	■ R1415 +	Tarceva+Avastin (erlotinib+bevacizumab)	EGFR inhibitor + anti-VEGF monoclonal antibody	NSCLC (1st line)	II	Genentech
	■ R435					
	■ R1507		anti-IGF1R monoclonal antibody	Ewing's sarcoma	II	Genmab
	■ R7159		3rd-generation anti-CD20 antibody	non-Hodgkin's lymphoma	I	GlycArt
	■ R1530			solid tumours	I	
	■ R547			solid tumours	I	
	■ R4733			solid tumours	I	
■ R7204		B-raf kinase inhibitor	malignant melanoma	I	Plexxikon	
■ R7112			cancer	I		
Inflammatory and autoimmune diseases	■ R1569	Actemra (tocilizumab)	humanised anti-IL-6 receptor monoclonal antibody	rheumatoid arthritis	filed US, EU, Jpn	Chugai
	■ R1569	Actemra (tocilizumab)	humanised anti-IL-6 receptor monoclonal antibody	systemic onset juvenile idiopathic arthritis	III, filed Jpn	Chugai
	■ R105	MabThera/Rituxan (rituximab)	anti-CD20 monoclonal antibody	rheumatoid arthritis, DMARD inadequate responders	III	Genentech and Biogen Idec
	■ R1594	(ocrelizumab)	humanised anti-CD20 monoclonal antibody	rheumatoid arthritis	III	Genentech
	■ R1594	(ocrelizumab)	humanised anti-CD20 monoclonal antibody	systemic lupus erythematosus, lupus nephritis	III	Genentech
	■ R99	CellCept (mycophenolate mofetil)	IMPDH inhibitor	pemphigus vulgaris	III	Aspreva
	■ R667		nuclear receptor agonist	emphysema	II	
	■ R3421		PNP inhibitor	autoimmune diseases, transplantation	II	BioCryst
	■ R3477		S1P1 receptor agonist	autoimmune diseases	I	Actelion
	■ R7277		AP-1 inhibitor	rheumatoid arthritis	I	Toyama
	■ R7103			chronic obstructive pulmonary disease	I	
	■ R1671			asthma	I	
	■ R1439	(aleglitazar)	dual PPAR agonist	type 2 diabetes	II	
	■ R1579		DPP-IV inhibitor	type 2 diabetes	II	
	■ R1583		GLP-1 analogue	type 2 diabetes	II	lpsen (BIM51077)
■ R1658		CETP inhibitor	dyslipidemia	II	Japan Tobacco (JTT-705)	
■ R7201			type 2 diabetes	I	Chugai	
■ R1511		glucokinase activator	type 2 diabetes	I		
■ R4929			type 2 diabetes	I		
■ R7234			type 2 diabetes	I		
■ R1512			peripheral vascular disease	I	Genmab	
■ R7232			dyslipidemia	I		
■ R1663			anticoagulant	I		
■ R744	C.E.R.A. (methoxy polyethylene glycol-epoetin beta)	continuous erythropoietin receptor activator	chemotherapy-induced anemia	II		
Hematology and nephrology	■ R127	Valcyte (valganciclovir)	inhibitor of CMV replication	cytomegalovirus, extension of treatment	III	
	■ R1626		polymerase inhibitor	hepatitis C	II	
	■ R3484		HPV16 vaccine	cervical neoplasia	II	Transgene
	■ R7128		polymerase inhibitor	hepatitis C	I	Pharmasset
	■ R7227		protease inhibitor	hepatitis C	I	InterMune
Central nervous system	■ R1594	(ocrelizumab)	humanised anti-CD20 monoclonal antibody	relapsing remitting multiple sclerosis	II	Genentech
	■ R1450		anti-amyloid β-peptide antibody	Alzheimer's disease	I	Morphosys
	■ R1646			pain	I	
	■ R4996			Alzheimer's disease	I	
	■ R1678			schizophrenia	I	
	■ R1295			multiple sclerosis	I	
	■ R435	Avastin (bevacizumab)	anti-VEGF monoclonal antibody	gastrointestinal stromal tumour	III	Genentech
	■ R435	Avastin (bevacizumab)	anti-VEGF monoclonal antibody	adjuvant rectal cancer	III	Genentech
	■ R435	Avastin (bevacizumab)	anti-VEGF monoclonal antibody	metastatic breast cancer (2nd line)	III	Genentech
	■ R435	Avastin (bevacizumab)	anti-VEGF monoclonal antibody	ovarian cancer (2nd line)	III	Genentech
■ R105	MabThera/Rituxan (rituximab)	anti-CD20 monoclonal antibody	primary progressive multiple sclerosis	III	Genentech	
■ R105	MabThera/Rituxan (rituximab)	anti-CD20 monoclonal antibody	lupus nephritis	III	Genentech	
■ R105	MabThera/Rituxan (rituximab)	anti-CD20 monoclonal antibody	ANCA-associated vasculitis	III	Genentech	
■ R105	MabThera/Rituxan (rituximab)	anti-CD20 monoclonal antibody	systemic lupus erythematosus	III	Genentech	
■ Anti-CD40		anti-CD40 monoclonal antibody	diffuse large B cell lymphoma	II	Genentech	
■ R1524		calcineurin inhibitor	renal transplant	II	Isotechnika (ISA247)	
■ R1668		E2F modulator	solid tumours	II	ArQule (ARQ501)	
■ R435	Avastin (bevacizumab)	anti-VEGF monoclonal antibody	glioblastoma multiforme	II	Genentech	
■ R435	Avastin (bevacizumab)	anti-VEGF monoclonal antibody	relapsed or refractory multiple myeloma	II	Genentech	
■ R435	Avastin (bevacizumab)	anti-VEGF monoclonal antibody	extensive small-cell lung cancer	II	Genentech	
■	APO2L/TRAIL		cancer	II	Genentech	
■	Apomab		sarcoma	II	Genentech	
■	Apomab		cancer	I	Genentech	
■ Anti-CD40		anti-CD40 monoclonal antibody	non-Hodgkin's lymphoma, multiple myeloma	I	Genentech	
■		MEK inhibitor	cancer	I	Genentech	
■		IAP antagonist	cancer	I	Genentech	
■		3rd-generation anti-CD20 antibody	hematologic malignancies	I	Genentech	
■		hedghog antagonist	cancer	I	Genentech	
■		anti-cMet	cancer	I	Genentech	
■ TP300			colorectal cancer	I	Chugai	
■		anti-IFN alfa	systemic lupus erythematosus	I	Genentech	
■	VAP-1		inflammatory diseases	I	BioTie	
■ NA808			hepatitis C	I	Chugai	
■ R1589			Alzheimer's disease, schizophrenia	II	Memory Pharmaceuticals	
Participation through Chugai	■ AVS	Antevas (nicaraven)	hydroxyl radical scavenger	subarachnoid hemorrhage	filed Jpn	
	■ EPOCH	Epogin (epoetin beta)		chemotherapy-induced anemia	III	
	■ ED-71		activated vitamin D derivative	osteoporosis	III	
	■ GM-611	(mitomycin fumarate)	motilin agonist	gastroparesis, irritable bowel syndrome	II	
Participation through Genentech	■	Lucentis (ranibizumab)	antibody fragment to VEGF	diabetic macular edema	III	
	■	Lucentis (ranibizumab)	antibody fragment to VEGF	retinal vein occlusion	III	
	■	TNKase (tenecteplase)	thrombolytic agent	catheter clearance	III	
	■	Xolair (omalizumab)	anti-IgE antibody	pediatric asthma	III	Novartis
	■	Raptiva (efalizumab)	humanised anti-CD11a monoclonal antibody	renal transplant	II	Merck Serono
	■	ABT-869		solid tumours	II	Abbott
	■	ABT-263		solid tumours and hematologic malignancies	I	Abbott

At the beginning of 2008 the Pharmaceuticals Division's R&D pipeline comprised 115 projects, including 57 new molecular entities (NMEs) and 58 additional indications. Thirty-four NMEs are currently in phase I, 19 in phase II and four in phase III or filed for regulatory review.

Blue type signifies first indication, black type additional indications. Current as of January 2008.

■ Therapeutic protein ■ Small molecule ■ Polypeptide  
 ■ Antibody fragment □ Therapeutic vaccine

Phase I: Initial studies in healthy volunteers and possibly in patients  
 Phase II: Efficacy, tolerability and dose-finding studies in patients  
 Phase III: Large-scale studies in patients for statistical confirmation of safety and efficacy

leukemia. Recruitment for both studies has been completed, and interim analyses are scheduled for 2008. Roche and its partners are also evaluating the product in a phase III trial as maintenance therapy following first-line treatment in patients with indolent non-Hodgkin's lymphoma, a form of the disease that progresses slowly but is incurable.

The ongoing clinical development programme for Avastin is expected to include over 40,000 patients worldwide. In addition to further trials with the aim of broadening the product's use in breast and lung cancer, Avastin is also being studied in potential new indications, including prostate, ovarian, gastric and brain (glioblastoma) cancers, as well in aggressive non-Hodgkin's lymphoma (in combination with MabThera/Rituxan). Major phase III trials are currently also investigating Avastin in the adjuvant setting in colon, lung and HER2-negative breast cancer. A phase III trial of the medicine in HER2-positive adjuvant breast cancer is scheduled to begin in 2008.

Tarceva is currently being evaluated in an extensive clinical development programme by a global alliance comprising OSI Pharmaceuticals, Genentech, Chugai and Roche. The programme of almost 20 clinical studies is investigating the benefits of Tarceva in lung cancer (including early-stage NSCLC) and other solid tumours.

The recruitment of patients into a phase III study investigating Herceptin in advanced HER2-positive gastric cancer is moving forward as planned. Gastric cancer represents a significant unmet medical need; current data indicate that the HER2-positivity rate in advanced gastric cancer is comparable to that in breast cancer.

Phase III testing of the HER dimerisation inhibitor pertuzumab in patients with HER2-positive metastatic breast cancer is expected to start patient recruitment early in 2008. This follows positive results of a phase II study in patients with pre-treated metastatic HER2-positive breast cancer in which pertuzumab showed substantial antitumour activity when used in combination with Herceptin. In the phase III study women who have not previously been treated for metastatic HER2-positive breast cancer will receive Herceptin plus docetaxel

or combined Herceptin, docetaxel and pertuzumab. The potential role of pertuzumab in other cancer types is also being investigated.

R7159, a humanised, third-generation anti-CD20 antibody currently in phase I development for non-Hodgkin's lymphoma, is the first antibody created using GlycArt's glycoengineering technology to enter clinical trials since GlycArt was acquired by Roche. R7159 is optimised to kill cancer cells directly and by stimulating the patient's immune system. The molecule shows exceptional activity in preclinical models of NHL, with clear differentiation from existing anti-CD20 antibodies and potential for efficacy in NHL and other B cell malignancies.

R1507, discovered in collaboration with Genmab, is a human monoclonal antibody targeting the insulin-like growth factor 1 receptor (IGF1-R). IGF1 activates signalling pathways that influence tumour growth. A phase I study has yielded encouraging results in patients with Ewing's sarcoma, an aggressive type of bone cancer. At the end of 2007 Roche began a phase II study in collaboration with the Sarcoma Alliance for Research through Collaboration, an independent organisation that promotes and facilitates sarcoma research. Further studies investigating R1507 in other tumour types are planned.

#### **Inflammation and autoimmune diseases**

New clinical results were published in 2007 on the use of MabThera/Rituxan in patients with rheumatoid arthritis (RA) who have not responded to therapy with one or more tumour necrosis factor (TNF) inhibitors. The results show that the product's effectiveness in relieving the distressing symptoms of RA is sustained or further improved with subsequent courses of treatment, as is the number of patients achieving remission. The data also show that the safety profile of MabThera/Rituxan remained unchanged in patients who had received as many as seven courses of treatment at 6- to 12-month intervals. Phase III development of the product in patients with earlier RA who have not responded adequately to treatment with disease-modifying antirheumatic drugs (DMARDs) is on track.

Actemra is being developed as a treatment for RA in one of the most extensive phase III programmes Roche has ever undertaken. This programme includes five trials with over 4,000 patients in 41 countries, including the US and in the EU. In July the fourth of these studies met its primary objective and showed, for the first time, the superiority of monotherapy with a biologic medicine over the standard effective dose regimen of methotrexate, a drug commonly used to treat RA. A fifth international study is progressing on track, with results expected during 2008.

Ocrelizumab is a humanised anti-CD20 monoclonal antibody being developed by Roche and Genentech for the treatment of autoimmune diseases. Like MabThera/Rituxan, ocrelizumab also targets B cells. As a humanised antibody, it has the potential to be less immunogenic, better tolerated and more convenient to administer. An extensive global phase III clinical development programme was started in 2007, including three phase III trials in rheumatoid arthritis and phase III trials in systemic lupus erythematosus and lupus nephritis. A phase II programme in relapsing-remitting multiple sclerosis will be initiated in the first half of 2008.

Based on preliminary results released in June from an ongoing phase III trial of CellCept in lupus nephritis conducted by Aspreva, Roche and Aspreva have for the time being decided not to proceed with a regulatory filing for the product as induction therapy for this autoimmune condition. The maintenance phase of the trial is continuing.

R7277 (T-5224, licensed from Toyama), an inhibitor of the transcription factor AP-1 (activator protein 1), represents a new therapeutic approach with the potential to improve the management of rheumatoid arthritis. Now in phase I trials, R7277 inhibits a number of pathways implicated in joint inflammation and destruction. Roche terminated development of R1503 (p38 kinase inhibitor) for RA in 2007, as the compound did not reach the predefined efficacy threshold in phase II testing.

Clinical testing of other promising oral drug candidates for autoimmune diseases, including R3421 (PNP inhibitor, in phase II with BioCryst

and R3477 (S1P1 receptor agonist, in phase I with Actelion), is progressing on track.

R667 is an oral compound currently in phase II development as a potential treatment for emphysema. In animal models R667 promotes structural repair of lung tissue and functional improvement, as well as having anti-inflammatory effects.

#### **Cardiovascular and metabolic disorders**

Low levels of high-density lipoprotein cholesterol (HDLC), or 'good' cholesterol, are associated with an increased risk of cardiovascular disease. R1658 (JTT-705), licensed from Japan Tobacco, is designed to raise levels of HDLC by inhibiting cholesteryl ester transfer protein (CETP) activity. Based on promising phase II data, Roche has decided to move R1658 into phase III clinical trials.

Type 2 (adult onset) diabetes has been recognised by the World Health Organization as a global epidemic. By some estimates, 300 million people worldwide will have this disease by 2020. Roche is currently developing potential treatments for type 2 diabetes that target five different mechanisms of action.

R1583 (BIM 51077, licensed from Ipsen) is a long-acting glucagon-like peptide-1 (GLP-1) analogue being developed for the treatment of type 2 diabetes. The structure of the molecule is similar to that of the natural human hormone GLP-1, with potential for weekly or longer administration intervals. Phase II testing of R1583 was completed in 2007, and the initial data are very encouraging. Roche expects to make a decision on entry into phase III clinical trials in the first half of 2008.

R1579, a dipeptidyl peptidase IV (DPP-IV) inhibitor being developed for the treatment of type 2 diabetes, moved into phase II clinical testing in 2007. DPP-IV is an enzyme responsible for the breakdown of GLP-1, a hormone involved in blood sugar regulation.

Roche has a broad portfolio of additional candidate molecules in development for type 2 diabetes, including R1439 (aleglitazar) in phase II, and R7201 (co-development by Roche and Chugai) and

R1511, both in phase I. These compounds address three different potential targets involved in glucose regulation.

#### **Virology**

Roche is developing a number of potential new treatments for HCV infection, focusing on two mechanisms of action: polymerase inhibition and protease inhibition. Compounds from both classes are being studied in combination with Pegasys and Copegus.

R1626, currently in phase II, is a potent inhibitor of HCV polymerase, an enzyme that is essential for replication of the virus. Another HCV polymerase inhibitor, R7128, being developed by Roche and Pharmasset is currently in phase I testing in patients infected with difficult-to-treat HCV genotype 1. R7227, a protease inhibitor being developed by Roche and InterMune, is also in phase I development in patients with HCV genotype 1.

R3484, a novel therapeutic vaccine licensed from Transgene, is currently in phase II development for the treatment of human papilloma virus-related early cervical neoplasia (cancer of the cervix), a disease with limited therapy options.

#### **Central nervous system diseases**

Diseases of the central nervous system represent some of the greatest unmet medical needs worldwide and account for one of the largest segments of the global pharmaceuticals market. Roche currently has five projects in early clinical development in this area, including promising phase I compounds for Alzheimer's disease, schizophrenia and depression. Among these is R1678, a novel compound that is designed to restore appropriate levels of the neurotransmitter glutamate in patients with schizophrenia; R1678 is scheduled to enter phase II clinical trials in 2008.

#### **Manufacturing infrastructure**

In 2007 the Roche Group continued to make substantial investments to ensure continuous supply of its innovative products worldwide.

Two biologic manufacturing facilities for Avastin and Herceptin, respectively, were opened in Basel

(Switzerland) and Penzberg (Germany). The new facilities represent a combined investment of 800 million Swiss francs and are expected to start supplying the market with products in 2008/2009. In April the FDA approved Genentech's biologic manufacturing facility in Oceanside, California as a commercial production site for Avastin.

The foundation stone was laid in April for a galenic production facility in Kaiseraugst, Switzerland. The facility, which represents a capital investment of 190 million Swiss francs, will produce sterile formulations of Roche medicines, including liquid and lyophilised vials and prefilled syringes.

In October Roche inaugurated a high-tech galenic production facility in Mannheim (Germany). The facility can fill up to 24 thousand liquid vials per hour under sterile conditions, for an annual output of five million vials. The project represents an investment of 42 million Swiss francs. In September, Roche inaugurated its new state-of-the-art production facility in Toluca, Mexico, an investment of 75 million Swiss francs.

As part of an ongoing programme to consolidate its manufacturing network, Roche sold production facilities in South Korea and Turkey in 2007. Roche Pharmaceuticals now operates a total of five chemical, two biotech and 14 galenic production units at 17 sites worldwide.



A heart patient in a hospital emergency room

Medical emergencies. In a life-threatening emergency every second may count. Roche supplies point-of-care testing products that help doctors make informed clinical decisions in situations like this. Patients can be assessed quickly and reliably on the basis of test results, symptoms and other relevant medical data, so that appropriate treatment can be started without delay.

## Diagnostics Division in brief

### Sales in millions of CHF

<b>2007</b>		<b>9,350</b>
2006		8,747
2005		8,243

### Operating profit before exceptional items in millions of CHF

<b>2007</b>		<b>1,648</b>
2006		1,422
2005		1,771

### Number of employees

<b>2007</b>		<b>23,062</b>
2006		20,712
2005		20,352

### Key figures

	In millions of CHF	% change in CHF	% change in local currencies	% of sales
Sales	9,350	7	6	100
- Professional Diagnostics	4,294	9	8	46
- Diabetes Care	3,216	6	5	34
- Molecular Diagnostics	1,148	-2	-2	12
- Applied Science	692	11	11	8
EBITDA	2,580	3	2	27.8
Operating profit	1,648	16	14	17.6
Research and development	787	2	1	8.4

### Diagnostics Executive Committee 1 January 2008

Jürgen Schwiezer	CEO Division Roche Diagnostics
Per-Olof Attinger	Global Platforms and Support
Manfred Baier	Applied Science
Dirk Ehlers	Professional Diagnostics
Christian Hebich	Finance and Services
Michael Heuer	EMEA (Europe, Middle East, Africa) and Latin America
Daniel O'Day	Molecular Diagnostics
Tiffany Olson	North America
Robert Yates	Business Development

# Diagnostics

## The Division

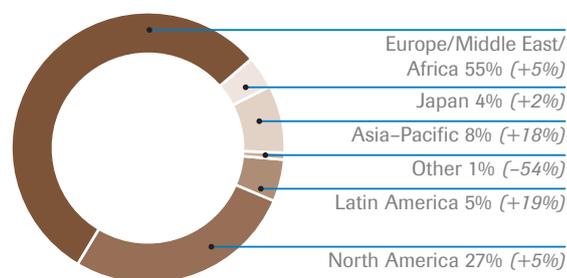
Roche's Diagnostics Division is a world leader in *in vitro* diagnostics: products used to test blood and other body fluids and tissues to obtain information for the diagnosis, prevention and treatment of disease. Its product portfolio ranges from blood glucose meters for people with diabetes and point-of-care testing devices for use in doctors' offices to high-throughput analysers for hospitals and commercial diagnostic laboratories. The division also supplies state-of-the-art instruments and reagents for life science research.

Roche Diagnostics has R&D facilities in Europe and the United States, augmented by a network of alliances and partnerships giving it broad access to key new technologies. It uses these capabilities to develop products of high medical value to patients and products that help laboratories and other testing sites operate more efficiently and productively. More information about the division and its products is also available at [www.roche.com/div\\_diag.htm](http://www.roche.com/div_diag.htm).

## Results

Roche Diagnostics remained the global market leader in 2007 with a market share of approximately 19%. Divisional sales for the year totalled 9.3 billion Swiss francs, an increase of 6% in local currencies (7% in Swiss francs; 12% in US dollars) over 2006.<sup>1)</sup> The Professional Diagnostics and Diabetes Care businesses posted solid single-digit sales increases. Roche Applied Science's sales grew at a double-digit rate. As expected, pressure on industrial reagent prices continued to affect Roche Molecular Diagnostics' sales, which were down 2% for the year. Excluding industrial

## Sales by region



*Italics = growth rate*

reagents, this business area posted 3% top-line growth.

All regions contributed to growth, with sales advancing at double-digit rates in Latin America and Asia-Pacific and at single-digit rates in Europe, North America and Japan. Sales in Asia-Pacific grew almost twice as fast as the market.

The acquisitions of 454 Life Sciences, BioVeris Corporation and NimbleGen Systems, Inc., were completed in May, June and August, respectively. In January 2008 we signed a definitive merger agreement with Ventana Medical Systems, Inc., of Tucson (Arizona). The acquisition of Ventana will mark our entry into tissue-based diagnostics and be an important step in our Group's strategy of delivering personalised healthcare solutions to patients.

Divisional operating profit rose 14% to 1.6 billion Swiss francs, while the operating profit margin increased 1.3 percentage points to 17.6%. The

<sup>1)</sup> Unless otherwise stated, all growth rates are in local currencies.

margin improvement was driven by sales growth and was positively impacted by the reversal of royalty accruals relating to BioVeris and the absence in 2007 of the significant impairment charges recorded on intangible assets in 2006. These factors compensated for continued heavy investments in launch activities and significantly reduced industrial reagent sales in 2007. EBITDA<sup>2)</sup> totalled 2.6 billion Swiss francs, or 27.6% of sales, compared with 28.6% in 2006. This is well above the industry average. For more information on divisional operating results, see the Finance Report (*Financial Review* p. 11).

## Business areas

### Professional Diagnostics

Roche Professional Diagnostics (formerly Centralized Diagnostics and Near Patient Testing) supplies instrument systems, tests, software and services that help clinical laboratories deliver reliable results more efficiently and cost-effectively. It is also a leader in the growing market for point-of-care testing products to support clinical decision-making close to the patient, in doctors' offices, emergency rooms and other primary and specialty care settings. Having a single business area serve both these markets enables us to leverage our strengths (for example in cardiac marker testing) across a wider customer base and respond better to the needs of the growing number of customers who operate a central laboratory and multiple satellite testing sites. This business area includes a dedicated IT group which develops laboratory information, workflow and data management solutions as well as connectivity components to maximise laboratory efficiency.

Roche Professional Diagnostics gained market share in 2007 on overall sales growth of 8%. Immunochemistry remained the biggest growth driver, with sales revenues rising 13% for the year; this was the seventh consecutive year of above-market growth in immunochemistry sales. Sales of clinical chemistry products grew 3% in a highly competitive, cost-sensitive market. Roche remains the leading supplier of clinical chemistry and immunochemistry analysers in all markets except the United States.

The increase in immunochemistry sales was fuelled by continued strong demand for assays for the cardiac markers NT-proBNP and troponin T and for a TSH (thyroid-stimulating hormone) assay used to assess thyroid function. A vitamin D assay to diagnose osteoporosis and an assay for monitoring mycophenolic acid (MPA) therapy in heart and kidney transplant recipients were launched in the second half of the year and are expected to contribute to future growth. Monitoring MPA, the active form of Roche's leading immunosuppressant CellCept, enables physicians to maintain adequate immunosuppression at critical time points such as when initiating therapy or when reducing other, more toxic anti-rejection drugs.

Demand for the cobas 6000 analyser series for medium-workload laboratories (up to about 500 tests per day) remains very strong and helped drive immunochemistry and clinical chemistry sales. Introduced in 2006, the cobas 6000 was the first of several new modular platforms designed to integrate and improve the efficiency of immunochemistry and clinical chemistry testing in different-sized laboratories. Two new configurations were launched in 2007, increasing the platform's competitiveness; all seven cobas 6000 configurations will be available by the end of 2008.

The rollout of the cobas 4000 series of benchtop instruments for small- to medium-size laboratories began in early 2007 with the launch of the cobas e 411 immunochemistry analyser. The entire cobas 4000 package, including the cobas c 311 clinical chemistry instrument, will be available in 2008.

In June Roche and Sysmex Corporation of Japan strengthened their long-standing partnership by extending an agreement that gives Roche exclusive distribution rights for Sysmex hematology instruments in some markets in Europe, Latin America, Southern Africa and Oceania. Hematology sales showed strong double-digit growth in all regions covered by the new 10-year agreement. A separate agreement with Sysmex covering urinalysis prod-

2) Earnings before financial income, financing costs, tax, depreciation and amortisation, including impairment.

ucts was also extended; these products achieved above-market growth in 2007.

Sales of point-of-care diagnostic products rose 7%, helped by the continued trend towards testing outside the laboratory. Coagulation monitoring sales grew 14%, driven by the CoaguChek XS monitor for patient use and the CoaguChek XS Plus monitor for healthcare professionals, both launched in their first markets in 2006. These systems were released in the United States and Japan in the first half of 2007, and uptake in these major additional markets has been strong. Cardiac marker sales accelerated steadily following the launch of the cobas h 232 system in early 2007. This portable cardiac testing device provides highly reliable results in just 15 minutes. Sales of Accu-Chek Inform hospital blood glucose meters and test strips grew significantly, particularly as a result of the increasing adoption of tight glycemic control protocols in US hospitals.

The ambulatory care portfolio was strengthened in November by the launch of Accutrend Plus (cobas h 152), a hand-held instrument capable of measuring cholesterol, triglyceride and glucose levels (important indicators of cardiac risk) and lactate in blood. We expect this easy-to-use device to be an additional growth driver in 2008.

Integration of BioVeris Corporation, acquired in June, is proceeding as planned. The transaction, which gives Roche ownership of all patents relating to the electrochemiluminescence (ECL) detection technology used in its Elecsys product line, will enable us to expand our fast-growing immunochemistry business into new areas such as life science research, clinical trials and drug development.

In November Roche signed a licensing agreement with Ortho-Clinical Diagnostics, Inc., and Novartis Vaccines & Diagnostics giving Roche access to their broad portfolio of hepatitis C virus (HCV) patents for use in immunodiagnosics. The agreement also includes cross-licensing of patents owned by Roche Diagnostics. We are already a leader in nucleic acid testing for HCV, and the agreement will strengthen our position as a supplier of immunoassays for this major cause of liver disease, including chronic hepatitis, cirrhosis and liver cancer.

## **Diabetes Care**

Diabetes is a chronic, progressive disease which, if not properly controlled, can result in serious and costly complications, including heart and kidney disease, blindness and lower limb amputations. Today diabetes affects over 240 million people worldwide, and it is a leading cause of premature death. By 2025 the number of people with the disease is expected to reach 380 million.

While tailored to a variety of individual needs and preferences, Roche Diabetes Care's products are all designed with the same basic aims in mind: to help people with diabetes live healthy, productive lives and to make managing diabetes easier. Monitoring systems with integrated lancets and test strips and software for storing and analysing data are an increasingly important part of Roche's diabetes care portfolio because they improve glycemic (blood glucose) control for many users, in addition to offering greater convenience. Activities aimed at integrating glucose monitoring and data management with insulin delivery are ongoing and may one day result in systems that closely mimic the way the healthy pancreas regulates blood glucose levels.

Roche Diabetes Care remained the global market leader in 2007. Its full-year sales increased 5%, slightly below average growth in an increasingly competitive market. Healthcare system changes affecting pricing and reimbursement had a negative impact on sales growth in several major markets.

The Accu-Chek Aviva and Accu-Chek Compact blood glucose monitoring systems both posted sales increases, compensating for declining sales of the older Accu-Chek Advantage. Accu-Chek Aviva sales were up sharply from 2006 as a result of additional launches and continued market penetration. Accu-Chek Active, a compact, robust meter enabling discreet testing anywhere, also sold well, particularly in some EMEA (European, Middle Eastern and African) and South American markets.

Roche's insulin delivery business posted double-digit growth, led by sales increases in Europe and North America. Consumer uptake of the Accu-

Chek Spirit insulin pump in the United States was positive during its first full year on the US market.

Three new products were added to the diabetes care portfolio in 2007. Accu-Chek Performa, a blood glucose meter launched in the first quarter, automatically minimises the effects of temperature and other factors on test integrity. In the fourth quarter a new model of the Accu-Chek Compact meter was introduced in Germany, the United Kingdom and Norway. Among its features and benefits, this all-in-one system has a built-in test strip drum and is self-coding, for greater safety and only half the usual number of test steps. Accu-Chek 360°, last year's third new product, is a software package that enables people with diabetes and their health professionals to store, track and analyse blood glucose readings, insulin dosages and other health information quickly and conveniently. The rollout of all three products will continue in 2008.

### **Molecular Diagnostics**

Roche Molecular Diagnostics develops and commercialises innovative, highly sensitive instrument systems and tests that reliably detect viruses and other pathogens in patient samples and in donated blood, tissues and organs. Because these products use technologies that directly detect the genetic material (DNA or RNA) of infecting pathogens such as HIV or hepatitis viruses, they can identify and quantify infections earlier and more specifically than tests based on the body's immune response to infection. As a result, patients can be treated and monitored with greater precision, and the risk of their infecting others through blood or organ donations is reduced. The business area is also working on new gene-based tests to improve the diagnosis and treatment of non-infectious diseases, with a focus on the areas of cancer and inflammatory disease.

Roche Molecular Diagnostics remained the industry leader in 2007 with a 36% share of a growing but increasingly competitive market. Overall sales decreased 2% as revenues from the industrial reagents business continued to decline. Excluding industrial reagents, sales advanced 3% compared with 2006.

Sales of virology products rose 4% in 2007, with placements of the automated Cobas AmpliPrep/Cobas TaqMan (CAP/CTM) platform continuing to show good growth in Europe and Asia-Pacific. This platform was successfully launched in the US and Japanese markets in the second half of the year. Virology is Roche Molecular Diagnostics' largest segment by sales.

Automated tests for HIV-1 and hepatitis B and hepatitis C virus (HBV, HCV) were launched for the CAP/CTM platform in Japan, and the HIV-1 test was also introduced during the year in the United States. Uptake of all three tests remains strong in Europe, where they have been available since 2005. By the end of the year 122 supply contracts for the HIV-1 test had been signed with US laboratories, including a three-year contract with LabCorp of America. In 2008 we anticipate US approval and commercial launches of the HCV test for the CAP/CTM platform and an HBV test for the Cobas TaqMan 48 system; this will make Roche the first company to market a full suite of automated real-time PCR tests for major viral markers in the United States.

In the second largest segment, blood screening, full-year sales were down 1% in a very competitive market. In October Roche signed a five-year contract, effective from 2008, to supply its fully automated and integrated cobas s 401 instrument and cobas TaqScreen MPX (multiplex) Test to screen the entire Japanese Red Cross blood supply (roughly 5 million blood donations annually). Capable of simultaneously detecting HIV-1 (Groups M & O), HIV-2, HBV and HCV in donated blood and plasma, the cobas TaqScreen MPX Test has already been adopted by more than 50 sites across Europe, which run it on the fully automated modular cobas s 201 blood screening system. In 2008 we expect this test to be approved and launched in the United States, where it will also run on the cobas s 201. The cobas s 201 system was introduced in the United States with a test for West Nile virus in the second half of 2007.

The Amplicor and Linear Array tests for detecting and identifying low- and high-risk strains of human papillomavirus (HPV) also contributed to growth. Persistent infection with some strains of HPV is a major cause of cervical cancer.

Diabetes. A growing epidemic that already affects over five percent of the world's population. Compact, easy-to-use blood glucose meters, insulin pumps and data management tools from Roche help people with diabetes to manage their disease effectively and lead fuller, more independent lives. Using Roche products, they can check their blood glucose anywhere, anytime, with minimal discomfort, and meet their insulin needs safely, simply and reliably.



A man with type 1 diabetes testing his blood glucose at home with an Accu-Chek Compact PL meter

**Major product launches in 2007**

Business area	Product
<b>Professional Diagnostics</b>	Modular Analytics EVOsoft: Next-generation software with substantially improved STAT and workflow capabilities
	cobas e 411: Stand-alone immunochemistry analyser. First of the cobas 4000 series of benchtop instruments for small- and medium-workload laboratories
	Modular Pre-Analytics (MPA) connectivity for the cobas 6000 analyser series: Connectivity hardware and software that offers laboratories using cobas 6000 and Modular Pre-Analytics instruments total automation from sample preparation to result
	Additional configurations in the cobas 6000 analyser series, comprising the cobas c 501 and cobas e 601 clinical chemistry and immunochemistry instruments. The new configurations – cobas <501 <sup>2</sup> /601> and cobas <501 <sup>2</sup> > – make the series suitable for an even wider range of laboratory workloads
	Elecsys Vitamin D3 (25-OH) assay for diagnosing osteoporosis
	MPA assay for monitoring mycophenolic acid therapy in heart and kidney transplant recipients
	cobas IT 3000 solution: Laboratory workflow and data management solution for central and networked laboratories
	cobas IT 1000 solution: Work area manager for hospital point-of-care testing
	cobas h 232: Portable system for bedside or fixed-location cardiac testing; test menu of Roche cardiac assays
	Accutrend Plus (cobas h 152): Hand-held meter for measuring glucose, cholesterol, triglycerides and lactate in blood; designed for professional and self-testing environments
<b>Diabetes Care</b>	Accu-Chek Performa: Blood glucose monitoring system that gives results in five seconds, performs extensive quality checks and includes advanced data management features
	New Accu-Chek Compact Plus blood glucose monitoring system, with improved user-friendly design and an ergonomic user interface
	Accu-Chek 360°: Easy-to-use, customisable PC-based data management software designed for a wide range of uses, from downloading data to performing detailed analyses; for people with diabetes and healthcare professionals
<b>Molecular Diagnostics</b>	Cobas TaqScreen WNV Test and cobas s 201 system for automated real-time PCR detection of West Nile virus in donated blood and plasma (US)
	Cobas AmpliPrep/Cobas TaqMan HIV, HBV and HCV Tests for automated real-time PCR amplification and quantitation of HIV-1 and hepatitis B and C virus (HIV in US; HIV, HBV, and HCV in Japan)
<b>Applied Science</b>	Broad rollout of Genome Sequencer FLX, a next-generation DNA sequencing system that is even faster and more cost-efficient than Roche's ultrafast Genome Sequencer 20

## Applied Science

The life sciences encompass disciplines ranging from biology and biotechnology to medical research into major disease areas like cancer and virology. Roche Applied Science supplies a broad and growing array of instruments and highly specific reagents and test kits for use in this diverse research market. Its product portfolio and capabilities are especially strong in genomics and proteomics, sciences that are transforming our understanding and the treatment of disease.

Roche Applied Science's sales increased 11% in 2007, well ahead of the average growth of the life sciences market. Once again the main growth drivers were the LightCycler 480 instrument, the Genome Sequencer systems and research reagents. All of the business area's main products sold well. Roche Applied Science maintained its share of the genomics systems market while more than doubling its share of the rapidly expanding market for DNA sequencing products. This significant increase was due primarily to the versatile, ultra-fast Genome Sequencer FLX system, launched in the first half of 2007. Gene scanning software and reagents, also launched in 2007, have enhanced the versatility of the LightCycler 480 system, which can now be used to screen DNA samples for previously unknown variations in genes as well as to detect known genetic variants.

The integration of 454 Life Sciences and NimbleGen Systems, Inc., both acquired by Roche in 2007, is proceeding as planned. As a result of these acquisitions, Roche now offers the industry's most comprehensive, high-throughput workflow solutions for unlocking the secrets of the genome. In November the business area also strengthened its capabilities in cell analysis by signing an exclusive agreement with ACEA Biosciences Inc. to develop, supply and distribute systems based on ACEA's real-time cell assay technology.

Industrial reagents and substrates, which account for a major part of Roche Applied Science's sales revenues, remained important contributors to growth in 2007.

## Research and development

In 2007 Roche Diagnostics invested 787 million Swiss francs, or 8.4% of sales, in research and development. This was 1% more than in 2006. Excluding an impairment charge recorded in 2006 on intangible assets, R&D spending was up 10% for the year. The molecular diagnostics, immunochemistry and diabetes care businesses accounted for the largest shares of expenditure. Following the acquisitions of 454 Life Sciences and NimbleGen, Roche Applied Science's R&D spending also increased substantially in 2007.

### Professional Diagnostics

Roche Professional Diagnostics continues to expand its instruments' test menus. Important new laboratory tests scheduled for launch in 2008 include the first anti-HCV assay for the cobas and Elecsys platforms, which will be used to detect hepatitis C virus in patients with established or suspected liver disease, and an anti-CCP (anti-cyclic citrullinated peptide antibody) assay for diagnosing rheumatoid arthritis. Novel assays for PLGF (placenta growth factor) and sFlt1 (soluble fms-like tyrosine kinase 1) will also be introduced and will be among the first specific laboratory tests available for preeclampsia, a sometimes life-threatening complication of pregnancy. To aid the diagnosis of sepsis during pregnancy, the business area will be launching immunoassays for the inflammation markers interleukin-6 (IL-6) and procalcitonin. The test for IL-6, which is an early indicator of acute infection, will also be valuable in managing critically ill patients. Work on new and improved cardiac tests remains a high priority. A next-generation troponin T assay due to be launched in 2008 is expected to set new standards of sensitivity in the diagnosis of heart attack.

New laboratory systems reaching the market in 2008 will include the cobas c 311 clinical chemistry analyser for small to medium-size laboratories. This modular system will be available with a menu of approximately 100 tests. The first cobas urinalysis instrument, cobas u 411, will also be launched this year. An important new point-of-care offering will be Accu-Chek Inform II, the world's first wireless-enabled hospital blood glucose meter. Wireless

**Major product launches scheduled for 2008**

Business area	Product
<b>Professional Diagnostics</b>	Additional cobas 6000 configurations (cobas <501 601 <sup>2</sup> > and cobas <601 <sup>2</sup> >) to suit an even wider range of laboratory workloads
	cobas c 311: Clinical chemistry analyser in the cobas 4000 series
	cobas e-LabPerformance (formerly named MyLab View): Portal for online benchmarking of results obtained with Serum Work Area analysers
	Accu-Chek Inform II: First wireless-enabled hospital blood glucose meter
	Full commercial launch of cobas u 411: Stand-alone urinalysis system for small- and medium-workload laboratories
	Elecsys Anti-HCV assay for hepatitis C infection
	Elecsys anti-CCP (anti-cyclic citrullinated peptide antibody) assay for rheumatoid arthritis
	Novel immunoassays for PLGF (placenta growth factor) and SFlt1 (soluble fms-like tyrosine kinase 1) for preeclampsia
	IL-6 (interleukin-6) assay to aid the management of critically ill patients
	Procalcitonin assay to aid the early detection and monitoring of sepsis
	A next-generation troponin T assay for the diagnosis of heart attack
	Elecsys Anti-CMV IgG and Anti-CMV IgM assays for the detection of cytomegalovirus infection
	<b>Diabetes Care</b>
Accu-Chek Active: The proven performance of the current Accu-Chek Active model with additional features and a modern new design	
<b>Molecular Diagnostics</b>	Cobas AmpliPrep/Cobas TaqMan HCV Test: Automated, real-time PCR test for monitoring hepatitis C viral load (US)
	Cobas TaqMan 48 HBV Test: Automated, real-time PCR test for monitoring hepatitis B viral load (US)
	cobas TaqScreen MPX: Screens donated blood for major viruses (HIV-1, HIV-2, hepatitis B, and hepatitis C) in a single assay (US and Japan). It will run on the automated cobas s 201 system in the US; starting in June it will run on the automated, fully integrated cobas s 401 system in Japan
	Cobas TaqMan 48 TB Test: Automated, real-time PCR test for tuberculosis (EU)
	Cobas TaqMan 48 CT Test: New version of an automated, real-time PCR test for <i>Chlamydia trachomatis</i>
<b>Applied Science</b>	Second update of the Genome Sequencer FLX, featuring improved software
	LightCycler 480 System II: Real-time PCR platform with enhanced analysis software
	SeqCap products for resequencing genomic regions of interest, e.g. candidate genes in cancer
	Multiplex barcodes for the cost-effective analysis of parts of the human genome using amplicon resequencing
	Cell Analyzer System: Enables precise online measurement of cell activities without labelling
	MagNA Pure LC 2.0: Update of the MagNA Pure system for sample preparation; includes hardware update and additional host connectivity
XLR-HD: DNA sequencing kit enabling increased read lengths and higher throughputs per plate	

devices can contribute to better hospital quality management by helping point-of-care coordinators track what tests are being done and ensure that the right patients receive the right tests at the right time.

### **Diabetes Care**

Roche Diabetes Care continues to work on ways to simplify and improve diabetes management. A key priority is to make it easier for people to adhere to their dietary and treatment regimens, because good adherence can be critical for good glycemic control – and hence for preventing or delaying diabetic complications. This is why the business area is investing in information management technologies to support better communication and collaboration between people with diabetes and their healthcare professionals. And it is also the reason for the focus on integrated systems that reduce the number of test devices and test steps required and on developing lancing devices and lancets that make blood sampling virtually painless.

The business area is pursuing the development of insulin guidance software and decision support programs that could help physicians and patients make better treatment decisions. Work is also ongoing on a continuous glucose monitoring system. This is a long-term project aimed at developing a small, easy-to-use continuous monitoring system suitable for a broad spectrum of customers.

### **Molecular Diagnostics**

Cancer diagnostics remain a major research and development focus at Roche Molecular Diagnostics. Work is ongoing on tests to classify disease based on clinically relevant factors that affect prognosis and therapy selection. For example, an AmpliChip p53 Test is being developed to identify cancers harbouring a dysfunctional p53 tumour suppressor gene. Mutations of the p53 gene are recognised as a significant prognostic factor in various cancers. The ultimate aim is to achieve better treatment outcomes by identifying the patients most likely to respond to particular medicines. The business area is also working closely with Roche Pharmaceuticals and its partners on companion tests for new therapeutics, including a real-time PCR test to screen for

a common cancer-causing mutation of the BRAF kinase gene. This test may aid the development of a targeted cancer therapy which Roche and Plexikon Inc. are working on and which selectively inhibits this mutated form of the BRAF gene.

### **Applied Science**

Roche Applied Science's priorities include developing new and more powerful NimbleGen microarrays and enhancing the flexibility and efficiency of Genome Sequencer technology for the research market. Updates of the LightCycler 480 instrument and the MagNa Pure system, which prepares nucleic acid samples for PCR analysis, are currently in the pipeline and will offer customers higher throughputs and more seamless integration; rollouts are expected to start in 2008. As part of the Roche Group's personalised healthcare strategy, the business area has also stepped up work on tests with potential diagnostic applications and assay systems that may facilitate drug development, particularly in oncology and inflammatory diseases.

# Corporate Governance, Remuneration Report

## Corporate Governance

Roche complies with all relevant corporate governance requirements, in particular with all applicable laws, the Swiss Stock Exchange (SWX Swiss Exchange) directives (including the commentaries thereto) and the Swiss Code of Best Practice for Corporate Governance promulgated by the Swiss business federation *economiesuisse*. The company's internal governance framework, particularly its Articles of Incorporation and Bylaws, embodies all the principles needed to ensure that the company's businesses are managed and supervised in a manner consistent with good corporate governance, including the necessary checks and balances.<sup>1)</sup>

Our printed Annual Report contains selected links to the Roche website ([www.roche.com](http://www.roche.com)). Readers are thus provided not only with a 'snapshot' of our company at the reporting date but are also directed to sources which they can consult at any time for up-to-date information about corporate governance at Roche. Whereas each annual report covers a single financial year ending 31 December, our website contains information of a more permanent nature as well as the latest Roche news. Amendments to our company's Articles of Incorporation and Bylaws and changes in the curricula vitae of the members of the Board of Directors and the Corporate Executive Committee are published in timely fashion on our website, where they can be accessed by anyone looking for this information.

### Board of Directors

At the 89<sup>th</sup> Annual General Meeting (AGM) of Roche Holding Ltd, on 5 March 2007, Pius Baschera and Wolfgang Ruttendorf were elected as members of the Board of Directors, to serve for terms of four years.

At its organising meeting immediately following the 2007 AGM, the Board of Directors adopted changes to its committees' structure and its committee memberships as shown in the table on page 41.

At the 2008 AGM on 4 March 2008, Franz Humer will step down as CEO of the Roche Group and focus on his role as Chairman of the Board of Directors. Effective from the same date for this reason, the role and responsibilities of the Independent Lead Director, a position currently held by Bruno Gehrig, will be incorporated into the role of the Chairman of the Board with part of the Independent Lead Director's remit to be reassigned to the Vice-Chairmen. Bruno Gehrig and André Hoffmann will continue to serve as Vice-Chairmen.

At the 2008 AGM, the Board of Directors will propose shortening the term of office of new or directors for re-election from four to three years and the Board will nominate Bruno Gehrig, Lodewijk de Vink, Walter Frey and Andreas Oeri for re-election to the Board.

### Corporate Executive Committee

Severin Schwan, currently CEO Division Roche Diagnostics, will succeed Franz Humer as CEO of the Roche Group at the next AGM on 4 March 2008.

Jürgen Schwiezer was appointed to the Corporate Executive Committee as CEO of Division Roche Diagnostics effective on 1 January 2008.

Gottlieb Keller has been appointed to the position of Roche General Counsel effective 5 March 2008.

1) [http://www.roche.com/home/company/com\\_gov.htm](http://www.roche.com/home/company/com_gov.htm)



**Board of Directors 31 December 2007 (from left):** Pius Baschera, John I. Bell, Beatrice Weder di Mauro, Peter Brabeck-Letmathe, Bruno Gehrig, André Hoffmann, Franz B. Humer, Lodewijk J. R. de Vink, DeAnne Julius, Walter Frey, Andreas Oeri, Horst Teltschik, Wolfgang Ruttenstorfer.

Name, (year of birth)			Term ends	First elected
<b>Board of Directors</b>				
Dr Franz B. Humer (1946)	D*, F	Chairman	2009	1995
Prof. Bruno Gehrig (1946)	C*, D, E	Vice-Chairman and Independent Lead Director	2008	2004
André Hoffmann (1958)	C, D, E	Vice-Chairman	2009	1996
Prof. Pius Baschera (1950)	A, E		2011	2007
Prof. Sir John Irving Bell (1952)	C, E		2009	2001
Peter Brabeck-Letmathe (1944)	E		2010	2000
Lodewijk J.R. de Vink (1945)	C, E		2008	2004
Walter Frey (1943)	A, B, E		2008	2001
Dr DeAnne Julius (1949)	B*, E		2010	2002
Dr Andreas Oeri (1949)	A*, E		2008	1996
Dr Wolfgang Ruttenstorfer (1950)	B, E		2011	2007
Prof. Horst Teltschik (1940)	A, B, E		2010	2002
Prof. Beatrice Weder di Mauro (1965)	A, B, E		2010	2006

#### Secretary to the Board of Directors

Dr Gottlieb A. Keller (1954)

#### Honorary Chairman of the Board of Directors

Dr Fritz Gerber (1929)

A Corporate Governance and Sustainability Committee.

B Audit Committee.

C Remuneration Committee.

\* Committee chairperson.

D Presidium/Nomination Committee.

E Non-executive director.

F Executive director.

1 January 2008.

As Head of Corporate Services, he will continue to serve on the Corporate Executive Committee. His role as Secretary to the Board of Directors will expand to include additional tasks within the responsibility of the Chairman of the Board. After the 2008 AGM Gottlieb Keller will step down as Head of Corporate Human Resources.

Silvia Ayyoubi has been appointed to the Corporate Executive Committee as Head of Corporate Human Resources effective 5 March 2008. This is the most senior human resources executive role in the Group. Peter Hug and Eduard Holdener ceased to be members of the Enlarged Corporate Executive Committee on 31 May 2007 and 31 December 2007, respectively. Peter Hug assumed new duties as Head of Roche Pharmaceuticals' Western Europe. Eduard Holdener retired after many successful years at Roche.

## Information relating to Corporate Governance

### (1) Group structure and shareholders

- Roche's operating businesses are organised into two divisions: Pharmaceuticals and Diagnostics. The Pharmaceuticals Division comprises the three business segments Roche Pharmaceuticals, Genentech and Chugai. The Diagnostics Division consists of the following four business areas: Applied Science, Diabetes Care, Molecular Diagnostics and Professional Diagnostics. Business activities are carried out through Group subsidiaries and associated companies. Significant subsidiaries and associated companies are listed in the Finance Report, Note 35 to the Roche Group Consolidated Financial Statements ('Subsidiaries and associated companies', page 101).
- Major shareholders are listed in the Finance Report, Notes 28 and 33 to the Roche Group Consolidated Financial Statements ('Equity attributable to Roche shareholders' and 'Related parties', pages 87 and 100) and in Note 4 to the Financial Statements of Roche Holding Ltd ('Significant shareholders', page 117).
- André Hoffmann, Vice-Chairman of the Board of Directors, and Andreas Oeri, Chairman of the Board's Corporate Governance and Sustainabil-

ity Committee, serve in their respective capacities on the Board and its Committees as representatives of the shareholders group with pooled voting rights and receive the remuneration set forth in the Remuneration Report on page 50 and in the Finance Report, Note 33 to the Roche Group Consolidated Financial Statements ('Related parties', page 100) and Note 5 to the Financial Statements of Roche Holding Ltd ('Executive remuneration', page 118). No other relationships exist with the shareholders with pooled voting rights.

- There are no cross-shareholdings.

### (2) Capital structure

- Information on Roche's capital structure is provided in the Finance Report, Notes to the Financial Statements of Roche Holding Ltd (page 116). Additional details are contained in the Articles of Incorporation of Roche Holding Ltd.<sup>2)</sup>
- Changes in equity are detailed in the Finance Report, Notes to the Financial Statements of Roche Holding Ltd (page 116).
- The company has a share capital of 160,000,000 Swiss francs, divided into 160,000,000 fully paid bearer shares with a nominal value of 1 Swiss franc each. There are no restrictions on the exercise of the voting rights of these shares. Upon deposit, shares can be voted without any restrictions.
- There is no authorised or conditional capital.
- In addition, 702,562,700 non-voting equity securities (NES) have been issued in bearer form. They do not form part of the share capital and confer no voting rights. Each NES confers the same rights as one share to participate in available earnings and in any liquidation proceeds following repayment of the share capital. Roche's NES and the rights pertaining thereto (including the provisions protecting the interests of NES holders) are described in §4 of the Articles of Incorporation of Roche Holding Ltd.
- Information on debt instruments which have been issued and on outstanding bonds is provided in the Finance Report, Note 27 to the Roche Group Consolidated Financial Statements ('Debt', page 84).

2) [http://www.roche.com/home/company/com\\_gov/com\\_gov\\_arti.htm](http://www.roche.com/home/company/com_gov/com_gov_arti.htm)



**Corporate Executive Committee per 31 December 2007 (from left):** René Kissling, Jonathan K.C. Knowles, Eduard Holdener, Severin Schwan, Burkhard G. Piper, Franz B. Humer, Pascal Soriot, William M. Burns, Rolf Schläpfer, Erich Hunziker, Osamu Nagayama, Gottlieb A. Keller.

	Name, (year of birth)	Position
<b>Corporate Executive Committee</b>	Dr Franz B. Humer (1946)	Chairman and CEO of the Roche Group
	Dr Erich Hunziker (1953)	Chief Financial Officer and Deputy Head of the Corporate Executive Committee
	William M. Burns (1947)	CEO Division Roche Pharmaceuticals
	Dr Severin Schwan (1967)	CEO Division Roche Diagnostics
	Prof. Jonathan K.C. Knowles (1947)	Head Group Research
	Dr Gottlieb A. Keller (1954)	Head Corporate Services and Human Resources
<b>Enlarged Corporate Executive Committee</b>	Burkhard G. Piper (1961)	Head Business Area Roche Diabetes Care
	Pascal Soriot (1959)	Head Commercial Operations Pharmaceuticals Division
	Rolf Schläpfer (1956)	Head Corporate Communications
	Osamu Nagayama (1947)	President and CEO Chugai
<b>Secretary to the Corporate Executive Committee</b>	René Kissling (1966)	
<b>Statutory Auditors of Roche Holding Ltd and Group Auditors</b>	KPMG Klynveld Peat Marwick Goerdeler SA (since 2004)	
	Principal auditor: John A. Morris (since 2004)	
<b>Compliance Officer</b>	Dr Andreas Greuter (1949)	

- Additional information on employee stock options is provided in the Finance Report, Note 11 to the Roche Group Consolidated Financial Statements ('Employee stock options and other equity compensation benefits', page 64).
- Roche has issued no options apart from employee stock options, Stock-settled Stock Appreciation Rights (S-SARs) and options issued in connection with debt instruments.
- Neither the options awarded to employees nor the debt instruments which have been issued have any effect on Roche's share capital.

### **(3) Board of Directors and Corporate Executive Committee**

- Information on each member of the Board of Directors (including the years in which they were elected and the years in which their terms end) and each member of the Corporate Executive Committee is listed on pages 40 to 43. Curricula vitae and other information (including information on board memberships) are available on the Internet.<sup>3)</sup>
- The Annual General Meeting elects the members of the Board of Directors in staggered elections in which each nominee is voted on separately (see §18 of the Articles of Incorporation of Roche Holding Ltd<sup>4)</sup> and the Minutes of the 89<sup>th</sup> Annual General Meeting of Roche Holding Ltd, held 5 March 2007<sup>5)</sup>).
- Chairman of the Board of Directors Franz Humer continues to be the only director also serving in an executive capacity at Roche, and the majority of seats on the Board of Directors are held by independent directors.
- None of the non-executive members of the Board of Directors has been a member of Roche's Corporate Executive Committee or served in an executive capacity at any Group subsidiary during the three financial years preceding the current reporting period.
- The internal organisation of the Board of Directors and the division of authority and responsibilities between the Board and management, the remits of the Board committees and the information and control mechanisms available to the Board in its dealings with corporate management are governed by the Bylaws.<sup>6)</sup>
- The Board of Directors of Roche Holding Ltd is organised so as to ensure that the Group's businesses are conducted responsibly and with a focus on long-term value creation. To this end, the Roche Board has delegated certain responsibilities to several committees<sup>7)</sup>. Their composition and chairpersons as of 1 January 2008 are described on page 41. Each committees' authorities and responsibilities are defined in detail in the Bylaws of the Board of Directors.<sup>8)</sup>
- All the committees except the Presidium are chaired by independent directors.
- According to the Bylaws of the Board of Directors at the request of any of its members a Board meeting without the Chairman present may be convened. The Roche Board meets once a year to assess the Chairman's performance. This meeting, which is not attended by the Chairman, is chaired by one of the Vice-Chairmen.
- In 2007 the Board of Directors again conducted its regular self-evaluation, preparing a written report in which the Board reviewed and assessed its own performance and how effectively the individual directors worked together and with the Corporate Executive Committee.
- The Board of Directors has established a system of controls which is continuously monitored by the Audit Committee and by the Corporate Governance and Sustainability Committee and consists of the following elements:
  - Reports on financial and operating risks (risk management system)
  - System of internal controls over financial reporting (see page 107 in the Finance Report)
  - Internal audits
  - Compliance Officer
  - Safety, Health and Environmental Protection Department
  - Corporate Sustainability Committee

3) [http://www.roche.com/home/company/com\\_gov.htm](http://www.roche.com/home/company/com_gov.htm)

4) [http://www.roche.com/home/company/com\\_gov/com\\_gov\\_arti.htm](http://www.roche.com/home/company/com_gov/com_gov_arti.htm)

5) [http://www.roche.com/home/company/com\\_gov/com\\_gov\\_gv.htm](http://www.roche.com/home/company/com_gov/com_gov_gv.htm)

6) [http://www.roche.com/home/company/com\\_gov/com\\_gov\\_bylaws.htm](http://www.roche.com/home/company/com_gov/com_gov_bylaws.htm)

7) [http://www.roche.com/home/company/com\\_gov/com\\_gov\\_com.htm](http://www.roche.com/home/company/com_gov/com_gov_com.htm)

8) [http://www.roche.com/home/company/com\\_gov/com\\_gov\\_bylaws.htm](http://www.roche.com/home/company/com_gov/com_gov_bylaws.htm)

- Scientific and Ethics Advisory Group (SEAG), for issues relating to genetics and genetic engineering (established in 1999).
- Each year several black-out periods are imposed during which senior employees are prohibited from trading in company stock. The following black-out periods are in effect for 2008:
  - 1 January to 30 January
  - 1 April to 17 April
  - 1 July to 24 July
  - 1 October to 21 October

Black-out periods can be changed by the Chairman of the Board of Directors if circumstances warrant.

- In 2007 the Board of Directors met for five meetings, each from 3 to 6 hours in length\*; once for a full-day meeting\*; and once for a three-day official trip\* which included a Board of Directors meeting\*. The Board committees met as follows in 2007:
  - Presidium of the Board of Directors/ Nomination Committee: five meetings (approx. 2 hours each\*)
  - Audit Committee: four meetings (approx. 3 to 4 hours each\*)
  - Corporate Governance and Sustainability Committee: three meetings (approx. 3 hours each\*)
  - Remuneration Committee: two meetings<sup>9)</sup> (approx. 2 to 3 hours each\*)
- The Chairman and the Secretary to the Board of Directors are always present at Board meetings, except when the Board is discussing their performance or remuneration. The other members of the Corporate Executive Committee are invited to attend for, and report in person on, those agenda items concerning them. When the situation warrants, members of the Enlarged Corporate Executive Committee may also be invited to attend. The Board committees invite the Chairman of the Board and other Corporate Executive Committee members to deliver reports at committee meetings and may elect to commission independent expert reports and call on the services of consultants. The risk management system is subject to continuous review, with

findings being presented to the Audit Committee or the full Board<sup>10)</sup>. Internal Audit regularly briefs the Audit Committee with reference to ongoing audit reports. Members of Internal Audit attend Audit Committee meetings, as do external auditors. For information on the external auditors, see page 46.

- There are no management contracts which fall within the scope of Subsection 4.3 of the SWX Directive on Information relating to Corporate Governance.

#### **(4) Remuneration, shareholdings and loans**

All details regarding remuneration, shareholdings and loans are set forth in the Remuneration Report on pages 48 to 57 and in the Finance Report, Notes 28 and 33 to the Roche Group Consolidated Financial Statements ('Equity attributable to Roche shareholders' and 'Related parties', pages 87 and 100) and are listed in the Notes 5 and 6 to the Financial Statements of Roche Holding Ltd ('Executive remuneration' and 'Executive shareholdings', pages 118 and 120).

#### **(5) Participatory rights of shareholders**

- The participatory rights of shareholders are defined in Roche's Articles of Incorporation.<sup>11)</sup> As Roche shares are issued to bearer, there are no restrictions on admission to Annual General Meetings, with the exception that shares must be deposited within a specified period before the date of a meeting and an admittance card must be issued in the shareholder's name, as provided in §12 of the Articles of Incorporation. Any shareholder can elect to be represented by another shareholder at an Annual General Meeting. The Articles of Incorporation contain no restrictions on the exercise of voting rights, and the only quorum requirements are those stipulated in §16, in conformity with the Swiss Code of Obligations.

9) Remuneration Committee members are not permitted to contribute to or attend Remuneration Committee meetings at which matters concerning them are deliberated or decided.

10) Additional information is provided in the Finance Report, Note 32 to the Roche Group Consolidated Financial Statements, Risk management (page 93).

11) [http://www.roche.com/home/company/com\\_gov/com\\_gov\\_arti.htm](http://www.roche.com/home/company/com_gov/com_gov_arti.htm)

(\*These figures indicate the actual length of meetings and do not include the directors' extensive pre-meeting preparations and post-meeting follow-up activities.)

- Under §10.2 of the Articles of Incorporation, shareholders representing shares with a nominal value of at least 1 million Swiss francs can request the placement of items on the agenda of an Annual General Meeting. This must be done no later than 60 days before the date of the meeting.

#### (6) Change of control and defensive measures

- The Articles of Incorporation contain no provisions on the mandatory bid rule. Swiss law applies.
- There are no change-of-control clauses. Those components of remuneration based on Roche NES would be terminated in the event of an acquisition, and vesting period restrictions on pre-existing awards would be removed, so that all such options could be exercised immediately.

#### (7) Relationship to Group auditors and statutory auditors

At the Annual General Meeting of Roche Holding Ltd on 5 March 2007, the shareholders voted to appoint KPMG Klynveld Peat Marwick Goerdeler SA (KPMG) as Group auditors and statutory auditors (information on how long the current Group auditors and principal auditor have been serving in these capacities is provided on page 43). The Group auditors and statutory auditors participate in Audit Committee meetings. The auditors prepare written and oral reports on the results of their audits. The Audit Committee oversees and assesses the auditors and makes recommendations to the Board (for information on the responsibilities of the Audit Committee, see Article 8.1 of the Bylaws<sup>12)</sup>). The Group auditors and statutory auditors participated in four meetings of the Audit Committee in 2007.

The reports of the Group and statutory auditors can be found on pages 106 and 123, respectively, of this year's Finance Report.

KPMG received the following remuneration for their services as Group auditors and as statutory auditors of Roche Holding Ltd and other Roche companies:

	2007 (millions of CHF)	2006
Auditing services	21.5	14.9
Audit-related services	2.1	1.9
Tax consultancy services	1.0	0.7
Total	24.6	17.5

The Group auditors and statutory auditors are elected each year by the Annual General Meeting.

Ernst & Young Ltd received the following remuneration for their services as the auditors of Genentech and Chugai:

	2007 (millions of CHF)	2006
Genentech and Chugai audits	5.0	4.8
Other consulting services provided to Genentech and Chugai	3.1	0.7
Total	8.1	5.5

#### (8) Information policy

- As provided by §33 of the Articles of Incorporation,<sup>13)</sup> corporate notices are published in the *Swiss Official Gazette of Commerce* and in other daily newspapers designated by the Board of Directors (*Basler Zeitung, Finanz und Wirtschaft, L'Agefi, Le Temps, Neue Zürcher Zeitung*).
- Roche reports its half-year and full-year results in business reports published in print and online formats and at media events. In addition, detailed first- and third-quarter sales figures are published each year in April and October. The most current list of publication dates is available in English and German on the Internet.<sup>14)</sup>
- All relevant information and documents, including all media releases, investor updates<sup>15)</sup> and presentations to analyst and investor conferences are available on the Internet. Further publications can be ordered by e-mail, fax or telephone: [basel.webmaster@roche.com](mailto:basel.webmaster@roche.com); tel. +41 (0)61 688 83 39; fax +41 (0)61 688 43 43.

12) [http://www.roche.com/home/company/com\\_gov/com\\_gov\\_bylaws.htm](http://www.roche.com/home/company/com_gov/com_gov_bylaws.htm)

13) [http://www.roche.com/home/company/com\\_gov/com\\_gov\\_arti.htm](http://www.roche.com/home/company/com_gov/com_gov_arti.htm)

14) [http://www.roche.com/home/media/med\\_events.htm](http://www.roche.com/home/media/med_events.htm)

15) [http://www.roche.com/home/investors/inv\\_news\\_upd.htm](http://www.roche.com/home/investors/inv_news_upd.htm)

- The contact address for Investor Relations is:  
F. Hoffmann-La Roche Ltd, Investor Relations,  
Corporate Finance, 4070 Basel, Switzerland;  
tel. +41(0)61 688 88 80, fax +41(0)61 691 00 14.  
Additional information, including details on  
specific contact persons, is available on the  
Internet.<sup>16)</sup>

#### **(9) Compliance Officer**

The Compliance Officer is committed to ensuring that Roche corporate principles are consistently complied with throughout the Roche Group and also serves as a contact person for shareholders, employees, customers, suppliers and the general public on issues relating to the implementation of and compliance with these principles. Employees and other parties who become aware of violations of Roche corporate principles can bring them to the attention of their managers or supervisors or report them to the Compliance Officer (Andreas Greuter, direct phone number: +41(0) 61 688 75 37, e-mail: andreas.greuter@roche.com). Such disclosures will be treated confidentially and employees who make such disclosures will not be penalised by the company for doing so. However, these persons are not immune from prosecution for legal violations. The Compliance Officer reports regularly to the Corporate Governance and Sustainability Committee.

#### **(10) Non-applicability/negative disclosure**

It is expressly noted that any information not contained or mentioned herein is non-applicable or its omission is to be construed as a negative declaration (as provided in the SWX Swiss Exchange Corporate Governance Directive, and the Commentary thereto).

16) [http://www.roche.com/home/investors/inv\\_contact.htm](http://www.roche.com/home/investors/inv_contact.htm)

# Remuneration Report

Roche's success depends on the abilities and dedication of its people. Recognition of this forms the basis of our remuneration policy and system. In this remuneration report we inform our shareholders and interested members of the general public about the remuneration paid to our directors and senior executives (see also in the Finance Report, Note 33 to the Roche Group Consolidated Financial Statements ['Related parties', page 100] and Notes 5 and 6 to the Financial Statements of Roche Holding Ltd ['Executive remuneration' and 'Executive shareholdings', pages 118 and 120]). As an integral part of our Annual Report, this remuneration report will be submitted for approval at the 2008 Annual General Meeting.

## Remuneration policy

Roche revised its global remuneration policy in 2004. It is part of a framework of employee policies aimed at motivating and retaining current employees, attracting talented new ones and helping all Roche employees to perform at consistently high levels. Our remuneration policy is designed to foster value creation and reinforce a culture of performance and innovation, and it applies to non-managerial employees as well as to managers. The key principles underpinning this policy are:

- Focus on value creation
- Pay for performance
- Enabling employees to share in the company's success
- Fairness and transparency in remuneration decisions
- Remuneration targeted at market median levels
- A balanced mix of long- and short-term remuneration components
- Market-competitiveness

Base pay, bonuses, awards of Stock-settled Stock Appreciation Rights (S-SARs) and a Performance Share Plan support these principles. These remuneration components are linked to our company's financial performance and commercial success and

thus align the interests of Roche employees with those of the stockholders.

## Base pay

Base pay levels are determined according to market data for specific positions and individual employees' abilities, experience and performance over time. Pay increases are linked to individual performance and also take into account prevailing market conditions, affordability and the company's situation.

## Bonuses

Bonuses are awarded in recognition of individual contributions to value creation which go beyond normal job expectations, and they are meant to be an incentive to create or strengthen new business opportunities and strive for outstanding results. Bonus amounts are linked to Group or divisional business performance and to the achievement of individual and functional performance objectives. Bonuses are paid out based on the results of the Annual Report's preceding year.

## Stock-settled Stock Appreciation Rights (S-SARs)

Stock-settled Stock Appreciation Rights were introduced on 1 January 2005, thus establishing a uniform system of remuneration throughout Roche. S-SARs entitle holders to benefit financially from any increase in the value of Roche's non-voting equity securities between the grant date and the exercise date. Detailed information is available on page 56 and 57.

## Performance Share Plan

The members of the Corporate Executive Committee and other members of senior management (currently some 100 individuals worldwide) participate in the Performance Share Plan (PSP). Compared with the previous year, the group of participants was expanded in 2007; further expansion is expected in 2008, due to inclusion of

an increased number of managers from research and development. The PSP was established in 2002 for periods of three years each and is based on a three year comparison of the total shareholder return (TSR) with 19 competing companies<sup>1)</sup>. The first performance cycle closed in 2004, and the second cycle closed at the end of 2007. For further details on the PSP, see page 52 and 53.

Starting in 2006, an adjusted plan design was introduced. Under the new arrangements only one-third as many non-voting equity securities (NES) are awarded, and a new three-year performance cycle starts each year, in contrast to the successive three-year cycles under the old plan design. In 2007 there were thus three overlapping performance cycles, PSP 2005–2007, PSP 2006–2008 and PSP 2007–2009.

In the period between 1 January 2005 and 31 December 2007, Roche securities (shares and NES), including dividend yields performed far above average compared with a peer set of major pharmaceuticals and diagnostics companies<sup>1)</sup>, as shown in the following chart:

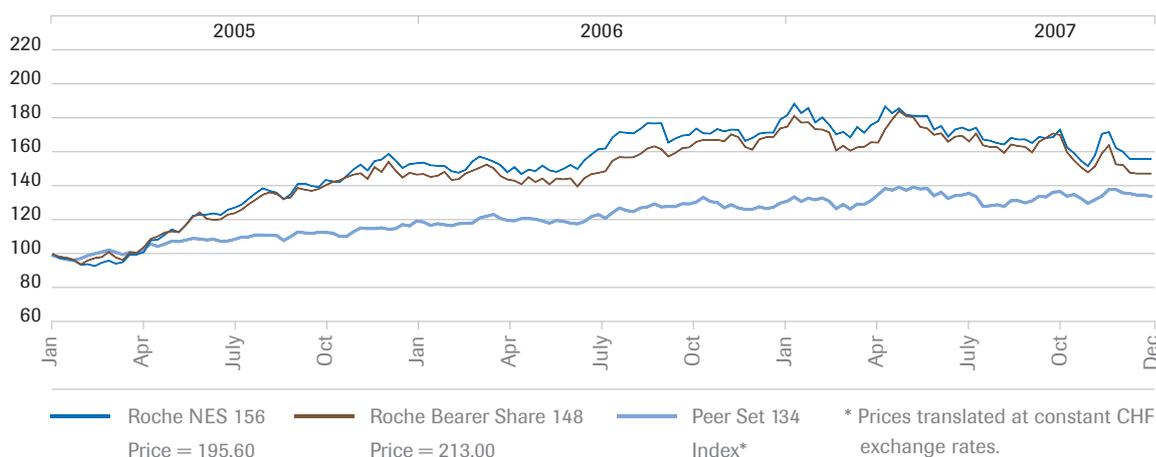
for the members of the Board of Directors and the Corporate Executive Committee (cash payments, bonuses, options, Stock-settled Stock Appreciation Rights; policy decisions about pension benefits). The terms of the Performance Share Plan are determined annually by the Board of Directors, acting upon recommendations from the Remuneration Committee. The Remuneration Committee continuously tracks salary trends in the market and reports to the Board of Directors. Information on this committee's remit and its procedures for making remuneration decisions can be found in the Bylaws of the Roche Board of Directors<sup>2)</sup>.

Following a detailed review, including market comparisons with the world's major pharmaceutical companies, the Remuneration Committee has concluded that Roche's current remuneration policy continues to be appropriate and suitable for achieving the intended objectives.

In addition to base salaries and allocations of Stock-settled Stock Appreciation Rights, the determination of bonuses and the allocation of non-voting equity securities under the PSP are linked to the achieve-

#### TSR development 2005–2007

The value of CHF 100\* invested 1<sup>st</sup> week of January 2005, for the period ending 31 December 2007



#### Remuneration of the Board of Directors and the Corporate Executive Committee

Each year the Remuneration Committee, which is entirely comprised of independent external members of the Board of Directors, sets remuneration

- 1) Peer set for 2007: Abbott Laboratories, Amgen, Astellas, AstraZeneca, Bayer, Beckton Dickinson, Biogen Idec, Bristol-Myers Squibb, Eli Lilly, Gilead, GlaxoSmithKline, Johnson & Johnson, Merck, Novartis, Pfizer, Sanofi-Aventis, Schering-Plough, Takeda, Wyeth.
- 2) <http://www.roche.com/home/company/comGov/comGovBylaws.htm>.

ment of sales, profit and individual goals and to Roche's current and future TSR performance relative to a defined peer set of companies (see page 53). The type and amount of compensation received by each member of the Corporate Executive Committee are set out in this section of the Business Report.

The following pages provide detailed information on the remuneration paid to each member of the Board of Directors and to each member of the Corporate Executive Committee for 2007, together with figures for previous years.

## (1) Remuneration

### (1.1) Remuneration of members of the Board of Directors

In 2007 the members of the Board of Directors<sup>3)</sup> received the remuneration shown in the table

'Remuneration of members of the Board of Directors' for their Board activities.

In 2007 the remuneration and additional compensation paid to members of the Board of Directors totalled 4,463,488 Swiss francs (previous year: 3,583,333 Swiss francs) of which 4,163,488 Swiss francs (previous year: 3,283,333 Swiss francs) were paid to non-executive Board members. The higher total remuneration paid to Board members was due primarily to the increased size of the Board and the higher additional compensation paid for chairing or serving on Board committees. The increase in additional compensation for committee members and committee chairs was based on the results of a market analysis and was the first such

3) For a list of members, their positions and their committee memberships and chairmanship, see page 41.

#### Remuneration of members of the Board of Directors

Remuneration of members of the Board of Directors	Remuneration 2007 (in CHF)	Additional compensation 2007 for committee members/chairs <sup>4)</sup> (in CHF)	Additional special compensation 2007
F. B. Humer	[300,000] <sup>5)</sup>	-	Remuneration as CEO, see 'F. Highest total remuneration', page 54
B. Gehrig	450,000 <sup>6)</sup>	-	
A. Hoffmann	400,000 <sup>7)</sup>	-	
P. Baschera	246,744 <sup>8)</sup>	30,000	
J. I. Bell	300,000	30,000	Compensation for sabbatical leave, see page 51
P. Brabeck-Letmathe	300,000	-	
L. J. R. de Vink	300,000	30,000	
W. Frey	300,000	60,000	
D. A. Julius	300,000	60,000	
A. Oeri	300,000	60,000	
W. Ruttenstorfer	246,744 <sup>8)</sup>	30,000	
H. Teltschik	300,000	60,000	Compensation for serving on the boards of Roche subsidiaries, see page 51
B. Weder di Mauro	300,000	60,000	
<b>Total</b>	<b>4,043,488</b>	<b>420,000</b>	
<b>Total compensation</b>		<b>4,463,488</b>	

4) With the exception of members of the Presidium and the Vice-Chairmen, Board members receive 30,000 Swiss francs/year for each committee they serve on and 60,000 Swiss francs/year for each committee they chair.

5) The remuneration paid to F. B. Humer (the only executive member of the Board of Directors) is deducted from his agreed salary (see 'Remuneration of members of the Corporate Executive Committee', page 51 to 55).

6) Remuneration for serving as Independent Lead Director and Vice-Chairman of the Board.

7) Remuneration for serving as Vice-Chairman of the Board.

8) Prorated remuneration for the period from March to December 2007.

increase since 2001. The individuals who benefited from the increase did not participate in or have any influence on the decision to adopt it. With the exception of the two vice-chairmen and the Independent Lead Director, all members of the Board of Directors have received the same remuneration since 2001.

The non-executive members of the Board of Directors were not awarded any shares, non-voting equity securities, Stock-settled Stock Appreciation Rights (S-SARs)<sup>9)</sup> or stock options in 2007.

John Bell completed a one-year sabbatical leave from the University of Oxford, which he spent at Roche. Roche paid all personal and family expenses that Prof. Bell incurred during his stay in Switzerland, including insurance costs. In 2007 these expenses totalled 87,858 Swiss francs. Roche also paid 175,283 Swiss francs into a retirement policy for John Bell in 2007.

Horst Teltschik received honoraria (including expenses) amounting to 19,635 euros (32,201 Swiss francs) for serving on the boards of several Roche subsidiaries in Germany.

Otherwise, no additional remuneration was paid to non-executive members of the Board of Directors.

### (1.2) Remuneration of members of the Corporate Executive Committee

The general provisions assigning authority for decisions on Corporate Executive Committee remuneration to the Remuneration Committee and to the Board of Directors are outlined on page 49 of this remuneration report.

In 2007 the members of the Corporate Executive Committee<sup>10)</sup> received the salaries, bonuses, Stock-settled Stock Appreciation Rights and non-voting equity securities shown in the tables on page 51 to 56. At the beginning of 2007 each member of the Corporate Executive Committee additionally received two bearer shares with a total value of 522 Swiss francs.

9) See 'Stock options/Stock-settled Stock Appreciation Rights (S-SARs)', page 56.

10) For a list of members and their positions, see page 43.

### Remuneration of members of the Corporate Executive Committee

#### A. Cash payments (in CHF)

	Annual salary 2007	Annual salary 2006	Annual salary 2005	Bonus for 2006 paid in 2007	Bonus for 2005 paid in 2006	Bonus for 2004 paid in 2005
F.B. Humer	6,030,000	6,030,000	6,030,000	3,000,000	1,500,000	1,000,000
W.M. Burns	2,000,000	1,875,000	1,425,000	2,000,000	1,000,000	900,000
E. Hunziker	2,000,000	1,900,000	1,567,500	2,000,000	1,000,000	900,000
G.A. Keller	900,000	850,000	662,500	500,000	400,000	350,000
J.K.C. Knowles	1,350,000	1,325,000	1,200,000	800,000	670,000	700,000
S. Schwan	1,100,000	762,500	-	1,000,000	95,000	-
Total	13,380,000	12,742,500		9,300,000	4,665,000	

#### B. Stock-settled Stock Appreciation Rights (S-SARs)

	S-SARs <sup>11)</sup> 2007 (value in CHF <sup>12)</sup> )	S-SARs <sup>11)</sup> 2006 (value in CHF <sup>12)</sup> )	S-SARs <sup>11)</sup> 2005 (value in CHF <sup>12)</sup> )
F.B. Humer	1,780,140	1,779,824	1,779,389
W.M. Burns	1,780,140	889,963	711,806
E. Hunziker	1,780,140	889,963	711,806
G.A. Keller	890,125	533,978	266,911
J.K.C. Knowles	890,125	533,978	533,823
S. Schwan	1,068,062	533,978	-
Total	8,188,732	5,161,684	

11) See 'Stock options/Stock-settled Stock Appreciation Rights (S-SARs)', page 56.

12) Black-Scholes value as described in 'Stock options/Stock-settled Stock Appreciation Rights (S-SARs)', page 56 to 57.

Members of the Corporate Executive Committee additionally receive annual expense allowances of 30,000 Swiss francs; the Chief Executive Officer receives an annual expense allowance of 50,000 Swiss francs. In 2007 the members of the Executive Committee received expense allowances totalling 200,000 Swiss francs.

### C. Performance Share Plan (PSP)

The members of the Corporate Executive Committee and other members of senior management (currently some 100 individuals worldwide) participate in the Performance Share Plan (PSP).

In 2006 the PSP moved to overlapping three-year performance cycles, with a new cycle beginning each year. In 2007 there were thus three cycles

in progress (PSP 2005–2007, PSP 2006–2008 and PSP 2007–2009); the PSP 2005–2007 ended on 31 December 2007.

Under the provisions of this plan, a number of non-voting equity securities (NES) have been reserved for the participants in each cycle. The number of securities actually awarded will depend on whether and to what extent an investment in Roche securities (shares and NES) outperforms the average return on an investment in securities issued by a peer set of comparator companies.<sup>13)</sup> Comparisons are based on the securities' market prices and dividend yields, i.e. on Total Shareholder Return (TSR).

13) See footnote 1, page 49.

#### Performance Share Plan (PSP)

	Target number of NES for PSP 2007–2009	Target number of NES for PSP 2006–2008	Number of NES awarded for PSP 2005–2007 (total number for 3-year period)	2007 Total estimated value of PSP awards (2005–2007 <sup>14)</sup> and 2006–2008 <sup>15)</sup> and 2007–2009 <sup>16)</sup> (in CHF)	2006 Total estimated value of PSP awards (2005–2007 <sup>17)</sup> and 2006–2008 <sup>18)</sup> (in CHF)	2005 Value of PSP awards (2005–2007 <sup>19)</sup>
F.B. Humer	9,185	10,365	96,056	7,537,511	6,938,649	6,262,851
W.M. Burns	3,046	2,578	19,114	1,612,918	1,414,318	1,246,233
E. Hunziker	3,046	2,750	23,416	1,904,622	1,706,023	1,526,723
G.A. Keller	1,370	1,203	8,760	738,912	649,587	571,152
J.K.C. Knowles	2,056	2,148	16,726	1,364,636	1,230,585	1,090,535
S. Schwan	1,218	1,117	6,212	557,264	477,851	405,022
<b>Total</b>	<b>19,921</b>	<b>20,161</b>	<b>170,284</b>	<b>13,715,863</b>	<b>12,417,013</b>	<b>11,102,516</b>

14) Value for 2007: calculated using the year-end price as of 31 December 2007 (CHF 195.60 per non-voting equity security [NES]), based on the number of NES awarded under the provisions of the plan and spread over the relevant period of time, i.e.  $\frac{1}{3}$  for the year 2007.

15) Estimated value for 2007: calculated using the year-end price as of 31 December 2007 (CHF 195.60 per non-voting equity security [NES]), based on the number of NES originally targeted (subject to changes in the number and value of NES awardable under the plan on 31 December 2008), and spread over the relevant period of time, i.e.  $\frac{1}{3}$  for the year 2007. The Board of Directors will vote on the actual allocation of NES originally targeted on 31 December 2008 according to the TSR achieved.

16) Estimated value for 2007: calculated using the year-end price as of 31 December 2007 (CHF 195.60 per non-voting equity security [NES]), based on the number of NES originally targeted (subject to changes in the number and value of NES awardable under the plan on 31 December 2009), and spread over the relevant period of time, i.e.  $\frac{1}{3}$  for the year 2007. The Board of Directors will vote on the actual allocation of NES originally targeted on 31 December 2009 according to the TSR achieved.

17) Value for 2006: calculated using the year-end price as of 31 December 2007 (CHF 195.60 per non-voting equity security [NES]), based on the number of NES awarded under the provisions of the plan and spread over the relevant period of time, i.e.  $\frac{1}{3}$  for the year 2006.

18) Estimated value for 2006: calculated using the year-end price as of 31 December 2007 (CHF 195.60 per non-voting equity security [NES]), based on the number of NES originally targeted (subject to changes in the number and value of NES awardable under the plan on 31 December 2008), and spread over the relevant period of time, i.e.  $\frac{1}{3}$  for the year 2006. The Board of Directors will vote on the actual allocation of NES originally targeted on 31 December 2008 according to the TSR achieved.

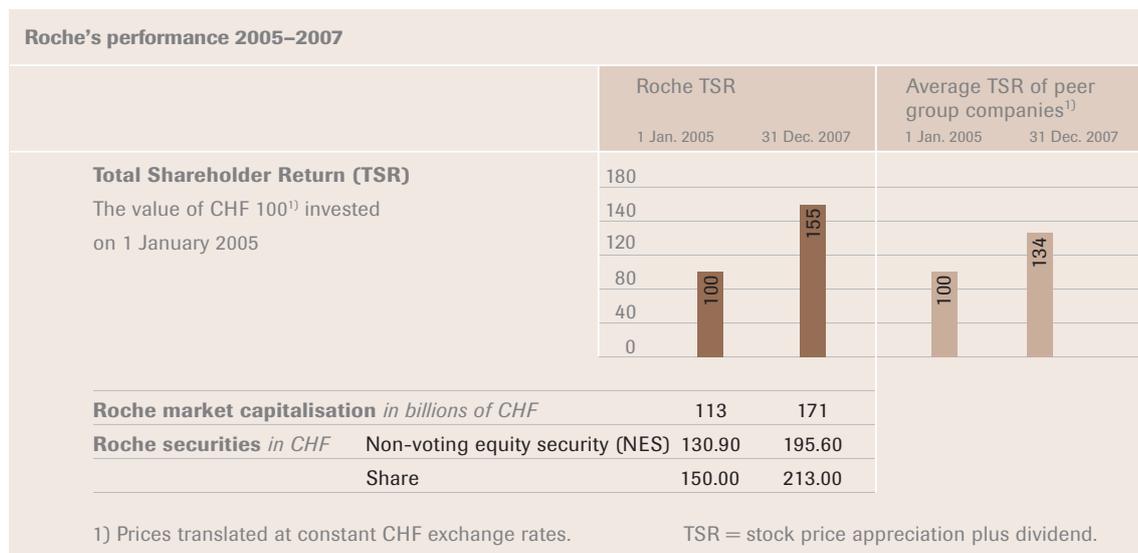
19) Value for 2005: calculated using the year-end price as of 31 December 2007 (CHF 195.60 per non-voting equity security [NES]), based on the number of NES awarded under the provisions of the plan and spread over the relevant period of time, i.e.  $\frac{1}{3}$  for the year 2005.

To reduce the effect of short-term market fluctuations, security prices are averaged over the three months (October to December) prior to the start of a performance cycle and over the three months (October to December) at the end of the cycle. If Roche securities perform as well as or better than those of 75% of the peer set and, in addition, Roche's TSR increases at least 10% during a cycle, the Board of Directors can elect to increase the maximum NES award by as much as two-fold. In the event that an investment in Roche securities underperforms the average return delivered by the peer companies, fewer or no NES will be awarded. In 2007 NES were reserved under the plan for members of the Corporate Executive Committee as shown in the table on page 52. The Board of Directors will decide on the actual level of NES or

the targeted number of NES, as permitted under the terms of the plan (see table on page 52 for details).

At the end of the PSP 2005–2007 cycle (based on a three-month moving average at constant exchange rates) Roche ranked #3, compared with its peer set<sup>20)</sup> of companies operating in the same industry.

Roche's market capitalisation rose from 113 billion to 171 billion Swiss francs in the period from 1 January 2005 to 31 December 2007, an increase of 58 billion Swiss francs or 51.3%. Dividends totalling 6.813 billion Swiss francs (2005: 1.725 billion Swiss francs; 2006: 2.156 billion Swiss francs; 2007: 2.932 billion Swiss francs) were distributed during this period.



cash equivalent awards for the cycles 2006–2008 and 2007–2009 after the close of the 2008 and 2009 financial years, respectively. If these cycles had ended at the end of 2007, no NES would have been awarded, and the amounts in the table on page 52 would have been reduced accordingly. The aim of the PSPs, however, is to provide an incentive to participants to achieve steady value growth.

The PSP 2005–2007 three-year cycle ended on 31 December 2007. Based on the results achieved over the entire period, the members of the Corporate Executive Committee received twice

#### D. Indirect benefits

Employer contributions made in 2007 to social security schemes, pension plans and a Group-wide employee stock purchase plan (Roche Connect) in respect of members of the Corporate Executive Committee are shown in the table 'Indirect benefits in 2007'.

Roche Connect is a voluntary stock purchase plan offering employees the opportunity to buy Roche non-voting equity securities (NES) up to an

20) See footnote 1, page 49.

**Indirect benefits in 2007**

	Pension funds/MGB <sup>21)</sup> (in CHF)	AHV/IV/ALV <sup>22)</sup> (in CHF)	Roche Connect (in CHF)	Payments for tax consulting services (in CHF)
F. B. Humer	1,377,284 <sup>23)</sup>	737,421	50,004	111,312
W. M. Burns	626,816	203,094	30,000	12,352
E. Hunziker	586,919	393,632	49,992	-
G. A. Keller	350,558	111,404	22,500	-
J. K. C. Knowles	914,854	305,890	22,500	19,981
S. Schwan	505,323	128,764	25,835	3,948
<b>Total</b>	<b>4,361,754</b>	<b>1,880,205</b>	<b>200,831</b>	<b>147,593</b>

21) MGB: Stiftung der F. Hoffmann-La Roche AG für Mitarbeiter-Gewinnbeteiligung (employee profit-sharing foundation supplementing occupational pension benefits).

22) AHV/IV/ALV: Swiss social security programmes providing retirement, disability and unemployment benefits.

23) Owing to amendments to Switzerland's Federal Occupational Old Age, Survivors' and Disability Pension Act (BVG), contributions on behalf of Franz B. Humer were limited to 1,377,284 Swiss francs. Because of existing contractual obligations an additional provision of 1,530,884 Swiss francs has been set aside by the company.

amount equal to 10% of their annual salary at a 20% discount. NES purchased under this plan are subject to a holding period, which in Switzerland is four years.

**E. Other remuneration, emoluments and loans to corporate officers**

In 2007 pensions totalling 2,032,328 Swiss francs were paid to two former Corporate Executive Committee members.

Heino von Prondzynski who resigned from Roche at the end of 2006 received a bonus of 390,000 Swiss francs at the beginning of 2007 in respect of services rendered in 2006. In 2007 he additionally received a total of 12,212 non-voting equity securities (NES) based on pro rated PSP awards.

In 2007 Franz Humer, Erich Hunziker, William M. Burns and Jonathan K. C. Knowles received a total of USD 207,500 (249,000 Swiss francs) for serving on the Chugai Board.

Otherwise, no additional remuneration was paid to current or former members of the Corporate Executive Committee.

**F. Highest total remuneration**

Chairman and CEO Franz B. Humer was the member of the Board and the member of the Corporate Executive Committee with the highest total remuneration in 2007 (see 'Remuneration of members

of the Corporate Executive Committee', page 51 to 57). Subject to changes in allocations and computations relating to the three-year Performance Share Plan (PSP) periods 2007–2009 and 2006–2008, Franz Humer's salary was as shown on page 55, ('Highest total remuneration').

After stepping down as CEO at the 2008 Annual General Meeting, Chairman of the Board Franz Humer will not receive any additional S-SARs or NES from new PSP cycles. From the start of 2008 he will no longer be enrolled in any Roche stock option plan or the PSP. His remuneration will consist of his base salary and bonus awards.

**G. Total remuneration of members of the Corporate Executive Committee**

In 2007 the members of the Corporate Executive Committee received remuneration totalling 51,277,789 Swiss francs<sup>24)</sup>.

**(1.3) Security-holdings**

Directors André Hoffmann and Andreas Oeri and members of the founders' families who are closely associated with them belong to a shareholder group with pooled voting rights. At the end of 2007 this group held 80,020,000 shares (50.01% of issued shares). André Hoffmann serves as spokesman for this shareholder group. Detailed information about

24) See 'Remuneration of members of the Corporate Executive Committee', (A-F) excluding AHV/IV/ALV, page 51 to 54.

**Highest total remuneration (in CHF)**

	2007	2006	2005
Cash payments (salary + bonus)	9,030,000 <sup>25)</sup>	7,530,000	7,030,000
Stock options/S-SARs (Black-Scholes value <sup>26)</sup> at grant minus 11%)	1,780,140	1,779,824	1,779,389
Performance Share Plan 2005–2007, 2006–2008 and 2007–2009 <sup>27)</sup>	7,537,511 <sup>28)</sup>	6,938,649 <sup>29)</sup>	6,262,851 <sup>30)</sup>
Pension funds/MGB <sup>31)</sup>	2,908,168 <sup>32/34)</sup>	2,858,447 <sup>33/34)</sup>	2,723,261 <sup>34)</sup>
Roche Connect	50,004	50,004	50,004
Total (value)	21,641,657 <sup>35)</sup>	19,380,361 <sup>36)</sup>	17,845,505

25) Including 300,000 Swiss francs remuneration for serving as Chairman of the Board of Directors (see page 50).

26) Black-Scholes value as described in 'Stock options/Stock-settled Stock Appreciation Rights (S-SARs)', page 56 to 57.

27) See 'Remuneration of members of the Corporate Executive Committee', C. Performance Share Plan, page 52.

28) Estimated value for 2007: based on the value of the NES awarded under the plan for the PSP 2005–2007 cycle and the estimated value of awards for the PSP 2006–2008 and PSP 2007–2009 cycles.

29) Estimated value for 2006 in the PSP 2005–2007 and PSP 2006–2008 cycles.

30) Value for 2005 based on the NES awarded under the plan for the PSP 2005–2007 cycle.

31) MGB: Stiftung der F. Hoffmann-La Roche AG für Mitarbeiter-Gewinnbeteiligung (employee profit-sharing foundation supplementing occupational pension benefits).

32) Includes the provision, described in footnote 23, page 54.

33) Includes the provision, described in footnote 17, Annual Report 2006, page 55.

34) Payments into pension schemes.

35) Includes an annual expense allowance of (CHF 50,000), payments of (CHF 111,312) for tax consulting services, remuneration of (USD 145,000 [CHF 174,000]) for serving on the Chugai Board and CHF 522 (value of two bearer shares received).

36) Includes annual expense allowances of (CHF 50,000) and remuneration of (USD 138,750 [CHF 173,437]) for serving on the Chugai Board.

**Security-holdings (at 31 December 2007)**

Members of the Board of Directors	Shares (number)	NES (number)	Close Relatives' security-holdings (number/type)	Others (number)
F. B. Humer	3	58,886	-	Stock options, S-SARs see (1.4)
B. Gehrig	50	50	-	-
A. Hoffmann	-*	365,200	-	250,000 UBS Long/Short Certificate on Roche Bearer Shares versus Roche Non-Voting Equity securities (ISIN: CH0026480100, Valor: 2 648 010)
P. Baschera	1	-	-	-
J. I. Bell	300	1,647	-	-
P. Brabeck-Letmathe	800	2,195	-	-
L. J. R. de Vink	-	-	-	1,000 American Depository Receipts (ADR), RHHBY, US ISIN: US7711951043
W. Frey	72,500	-	-	-
D. A. Julius	350	1,250	-	-
A. Oeri	90,000*	1,640,460	-	250,000 UBS Long/Short Certificate on Roche Bearer Shares versus Roche Non-Voting Equity securities (Valor: 2 648 010)
W. Ruttensdorfer	1,000	-	-	-
H. Teltschik	385	-	-	-
B. Weder di Mauro	200	-	-	-
Total	165,589	2,069,688	-	-

(\* Figure does not include shares held in the shareholders group with pooled voting rights.)

Members of the Corporate Executive Committee	Shares (number)	NES (number)	Close Relatives' security-holdings (number/type)	Others (number)
W.M. Burns	3	34,249	-	Stock options, S-SARs see (1.4)
E. Hunziker	3	19,928	-	Stock options, S-SARs see (1.4)
G.A. Keller	253	11,625	210 NES	Stock options, S-SARs see (1.4)
J.K.C. Knowles	3	27,366	-	Stock options, S-SARs see (1.4)
S. Schwan	3	2,148	-	Stock options, S-SARs see (1.4)
Total	265	95,316	210 NES	

this group can be found in the Finance Report, Note 33 to the Roche Group Consolidated Financial Statements ('Related parties', page 100) and in the Note 4 to the Financial Statements of Roche Holding Ltd ('Significant shareholders', page 117). In addition, as of 31 December 2007 the members of the Board of Directors and persons closely associated with them and the members of the Executive Committee and persons closely associated with them held shares and NES as shown in the table on page 55 and 56.

#### (1.4) Stock options/Stock-settled Stock Appreciation Rights (S-SARs)

At 31 December 2007 the members of the Corporate Executive Committee held options and Stock-settled Stock Appreciation Rights (S-SARs; first introduced on 1 January 2005) as shown in the table 'Stock options and S-SARs' below.

All of the options shown in the table were issued by Roche as employee stock options. Each option entitles the holder to purchase one Roche non-voting equity security (NES).

Under the terms of this multi-year option plan, the strike price for options shown was the closing price for Roche NES on the last day of trading prior to the Roche Annual Media Conference. All of the options shown are non-tradable. One-third of the options are subject to a vesting period of one year, one-third have a vesting period of two years, and one-third a vesting period of three years. Unvested options lapse without compensation if employment is terminated voluntarily (for reasons other than retirement), while vested options must be exercised within a limited period of time. The fair value of the options is calculated at the date of issue using the Black-Scholes formula and as if the options were

#### Stock options and S-SARs

	Number of stock options and S-SARs held by members of the Corporate Executive Committee on 31 December 2007 (S-SARs first issued in 2005)					
	2007 <sup>37)</sup>	2006 <sup>37)</sup>	2005 <sup>37)</sup>	2004 <sup>38)</sup>	2003 <sup>38)</sup>	Total
F. B. Humer	48,651	52,317	85,179	55,775	-	241,922
W. M. Burns	48,651	26,160	34,074	14,874	17,353	141,112
E. Hunziker	48,651	26,160	34,074	20,915	-	129,800
G. A. Keller	24,327	15,696	8,259	4,000	-	52,282
J. K. C. Knowles	24,327	15,696	25,554	-	-	65,577
S. Schwan	29,190	15,696	4,983 <sup>38)</sup>	1,864	1,635	53,368
Total	223,797	151,725	192,123	97,428	18,988	684,061
Strike price in (CHF)	229.60	195.00	123.00	129.50	77.80	
Market price per NES on 31 December 2007 (CHF)	195.60					
Expiry date	8. Feb. 2014	2. Feb. 2013	3. Feb. 2012	3. Feb. 2011	25. Feb. 2010	
Grant value per option and (starting in 2005) per S-SAR in CHF (Black-Scholes value minus 11%)	36.59	34.02	20.89	31.92	16.27	

37) S-SARs.

38) Stock options.

tradable, with an 11% deduction for the average two-year vesting period.

The S-SARs shown in the table on page 56 were introduced by Roche on 1 January 2005 in place of stock options. S-SARs entitle holders to benefit financially from any increase in the value of Roche's NES between the grant date and the exercise date. The strike price for S-SARs under the terms of this multi-year plan was the closing price for Roche NES on the first day of trading after the Roche Annual Media Conference. All S-SARs vest within three years of the grant date: i.e. one-third vest at the end of one year, one-third at the end of two years, and one-third at the end of three years. Vested S-SARs must be exercised (converted into NES) within seven years of the grant date, and unexercised S-SARs lapse without compensation. The fair value of the options is calculated at the date of issue using the Black-Scholes formula and as if the options were tradable, with an 11% deduction for the average two-year vesting period.

The strike prices, expiry dates and grant values for options and S-SARs are shown in the table on page 56. The numbers of options and S-SARs as calculated at the time of issue have been entered as values in the table 'Remuneration of members of the Corporate Executive Committee, B. Stock-settled Stock Appreciation Rights (S-SARs)' on page 51.

# Stakeholder engagement

Our stakeholders are the millions of people around the world who benefit from our products or share some of the risks of our business.

They are: patients and the medical community, employees, shareholders, governments and regulators, non-governmental organisations, local communities, suppliers and business partners.

Building and maintaining relationships with these groups helps us better understand and respond to their concerns. We consider their views in our business strategy and operational decisions, to create maximum benefit for them and our company. The table below lists our stakeholders, the interests we share, and how we engage with them.

## Engaging with our stakeholders

Stakeholder group	Key issues of interest	Examples of engagement in 2007
Patients	<ul style="list-style-type: none"> <li>• Patient safety and product quality</li> <li>• Access to healthcare</li> <li>• Ethical practices in clinical trials</li> <li>• Clear and reliable product information</li> </ul>	<ul style="list-style-type: none"> <li>• Clinical trials (<a href="http://www. Roche-trials.com">www. Roche-trials.com</a>)</li> <li>• Collaborations with patient groups</li> <li>• Resource materials</li> <li>• Global awareness campaigns</li> <li>• Websites, e.g. <a href="http://www. accu-chek.com">www. accu-chek.com</a></li> </ul>
Healthcare professionals and medical community	<ul style="list-style-type: none"> <li>• Clear and reliable product information</li> <li>• Patient safety and product quality</li> <li>• Access to healthcare</li> <li>• Ethical practices in clinical trials</li> <li>• Responsible marketing</li> </ul>	<ul style="list-style-type: none"> <li>• Clinical trials (<a href="http://www. Roche-trials.com">www. Roche-trials.com</a>)</li> <li>• Global awareness campaigns</li> <li>• Events, workshops and congresses</li> <li>• Face-to-face meetings</li> <li>• Product and specialist websites</li> </ul>
Healthcare payers	<ul style="list-style-type: none"> <li>• Patient safety and product quality</li> <li>• Access to healthcare</li> <li>• Value and cost-effectiveness</li> <li>• Medical evidence/clinical trial results</li> </ul>	<ul style="list-style-type: none"> <li>• Clinical trial dossiers</li> <li>• Face-to-face meetings</li> <li>• Joint support for third-party community health education initiatives</li> </ul>
Governments and regulators (local, regional and national)	<ul style="list-style-type: none"> <li>• Public health policy and legislation</li> <li>• Patient safety and product quality</li> <li>• Health economics and cost-effectiveness</li> <li>• Medical benefits (e.g. personalised healthcare)</li> <li>• Responsible marketing and compliance</li> <li>• Transparent and reliable information</li> </ul>	<ul style="list-style-type: none"> <li>• Lobbying activities to help shape public health policy and regulations</li> <li>• Membership of industry organisations</li> <li>• Events, workshops and congresses</li> <li>• Provision of Roche expertise</li> <li>• Direct engagement, website and reports</li> </ul>

Stakeholder group	Key issues of interest	Examples of engagement in 2007
Employees	<ul style="list-style-type: none"> <li>• Rewards and benefits</li> <li>• Training and development</li> <li>• Performance management</li> <li>• Equal opportunities</li> <li>• Work-life balance</li> <li>• Health and safety</li> </ul>	<ul style="list-style-type: none"> <li>• Internal communications and intranet</li> <li>• Performance reviews</li> <li>• Trade unions and works councils</li> <li>• Employee volunteering</li> <li>• Employee surveys and internal suggestion schemes</li> <li>• Employee welfare and sabbatical programmes</li> </ul>
Investors	<ul style="list-style-type: none"> <li>• Financial performance</li> <li>• Shareholder return</li> <li>• Corporate governance</li> <li>• Sustainable business strategy</li> <li>• Risk and opportunity management</li> <li>• Research and development pipeline</li> </ul>	<ul style="list-style-type: none"> <li>• Annual general meeting</li> <li>• Quarterly sales performance reports</li> <li>• Meetings, events and road shows</li> <li>• Responses to investor questionnaires</li> <li>• Regular investor updates</li> <li>• Website: <a href="http://www.roche.com/investors">www.roche.com/investors</a></li> </ul>
Suppliers and business partners	<ul style="list-style-type: none"> <li>• SHE policy, infrastructure and performance</li> <li>• Sustainable business model</li> <li>• Long-term partnership</li> </ul>	<ul style="list-style-type: none"> <li>• Questionnaires</li> <li>• On-site audits</li> <li>• Assistance and training for suppliers</li> </ul>
Non-governmental organisations (NGOs) and interest groups	<ul style="list-style-type: none"> <li>• Access to healthcare</li> <li>• Patient safety and product quality</li> <li>• Ethical business conduct</li> <li>• Human rights</li> <li>• Animal welfare in research</li> <li>• Open and transparent dialogue</li> </ul>	<ul style="list-style-type: none"> <li>• Face-to-face dialogue</li> <li>• Partnership programmes</li> <li>• Sharing expertise and/or funding</li> <li>• Events and congresses</li> <li>• Membership of trade associations</li> </ul>
Local communities	<ul style="list-style-type: none"> <li>• Job opportunities</li> <li>• Contribution to society</li> <li>• Avoidance of noise and local pollution</li> <li>• Science education</li> </ul>	<ul style="list-style-type: none"> <li>• Health education programmes</li> <li>• Direct involvement in local events</li> <li>• Support for science education</li> <li>• Sponsoring local activities</li> </ul>
The media	<ul style="list-style-type: none"> <li>• Financial performance</li> <li>• New product launches</li> <li>• Access to healthcare</li> <li>• Product quality</li> </ul>	<ul style="list-style-type: none"> <li>• Press releases</li> <li>• Media events and briefings</li> <li>• Interviews</li> <li>• Journalism awards</li> <li>• Published financial results</li> <li>• Website: <a href="http://www.roche.com/media">www.roche.com/media</a></li> </ul>
The scientific community	<ul style="list-style-type: none"> <li>• Innovation in healthcare through research collaborations</li> <li>• Education and training</li> <li>• Ethics in research and development</li> <li>• Animal welfare in research</li> </ul>	<ul style="list-style-type: none"> <li>• Collaboration with scientific institutions</li> <li>• Sponsorships and post-doctorate jobs</li> <li>• Research publications</li> <li>• Medical congresses</li> <li>• Educational material and support</li> <li>• Knowledge sharing</li> </ul>



A woman suffering from depression

Central nervous system diseases. One of the areas of greatest unmet medical need worldwide. CNS diseases are a major research focus at Roche. We have a number of drugs for Alzheimer's disease, schizophrenia and depression in early clinical development.

# Access to healthcare

Our greatest contribution to society is through our products, which help to prevent and cure diseases, hasten recovery and alleviate symptoms – improving quality of life and saving lives.

Our products also provide economic benefits by reducing treatment times, minimising hospital stays and speeding patients' return to work.

But healthcare needs and standards vary greatly around the world. So does public awareness of the causes, prevention and treatment of disease. All those involved must play a part in increasing access to healthcare. The healthcare industry is one of many players in the provision of healthcare. In discovering and developing medical products and diagnostic tests, we take seriously our responsibility to facilitate access to our products and services around the world. We work with other key players – such as regional and local governments, NGOs and healthcare professionals – to develop programmes appropriate for different regions that increase access to our products for those who need them.

## Global access to healthcare

We sell our products in approximately 180 countries, where patients can access them through doctors, hospitals and pharmacies.

Patients taking part in clinical trials of new tests and medicines receive those products for free. We continue to provide medicines at no cost to patients who still need them when the trial has ended, until the product is commercially available. We only perform clinical trials in countries where we intend to apply for marketing approval.

In 2007 we ran over 100 clinical trials, involving over 17,000 hospitals and clinics worldwide. As a result, 201,752 patients received free medicines and care.

## Access for those most in need

The world's poorest countries are also those hardest hit by disease, and have limited access to healthcare. There are many reasons for this, including lack of infrastructure, availability of clinicians and laboratories, and the price of medicines. We are committed to increasing and sustaining the availability of our medicines in resource-poor countries, through:

- Fair patent and pricing policies
- Partnership working with governments, NGOs and other organisations
- Education, training and knowledge-sharing.

We need patents to ensure that our products are used and we are compensated for our investment in innovation. This allows us to continue to develop new medicines and tests that improve and save lives. However, to increase access to those most in need, we do not file patents on any new products or enforce any existing patents in the least developed countries (LDCs) as defined by the United Nations.

We offer our second line HIV/AIDS medicines Viracept and Invirase at no-profit prices to the LDCs. We also offer Valcyte, our treatment for CMV retinitis (an eye condition common in those suffering from HIV/AIDS), at a substantially reduced price to not-for-profit HIV/AIDS treatment programmes in the LDCs and sub-Saharan Africa.

Drug donations are not a significant element of the strategy, as they do not support sustainable treatment. Unlike emergency aid such as food, painkillers and vaccines, chronic diseases such as HIV/AIDS require life-long monitoring and therapy. We believe it is unethical to donate drugs without the guarantee of an indefinite supply or clinical monitoring of their use.

Instead, we are involved in a number of programmes to help improve the resources, knowledge and expertise available in developing countries in

## Roche launches drug development centre in Shanghai

**In October 2007 we launched the first fully-functioning drug development centre in Asia (excluding Japan), a move that will dramatically increase our competitiveness in the region.**

With more than 90 employees, the Pharma Development Centre in Shanghai has all the basic skills required to carry out clinical development activities. It will initially focus on developing innovative cancer, arthritis and anemia therapies using Roche's new drugs to target these diseases.

Until now, drug development has taken place in Europe and North America. Patients in China must wait up to five years for medicines already approved in the US. But because of rapid economic growth and improved scientific capabilities in China, pharmaceutical companies are moving elements of R&D there to capitalise on the increased market opportunities.

The development centre, along with the research centre we established in China in 2004, makes Roche the first company to bring to Asia all the components required to fully develop a product in the clinical phase.

By developing drugs in China and increasing the number of Chinese patients taking part in clinical trials globally, we hope to get drugs registered and brought to Chinese patients more quickly. There is a particular need to speed up the approval of innovative treatments for cancer, a fast growing killer in China.

the longer term. Below are progress updates for 2007 for some of our most significant access programmes.

**Cambodia Treatment Access Programme (CTAP):** This public-private partnership aims to help combat HIV/AIDS. In 2007 Roche committed to fully fund the operational costs of CTAP's clinic in Phnom Penh for a further year. The Cambodian Ministry of Health is identifying other sources of funding, both national and international, to help the clinic become fully independent of Roche. Over 1,700 patients have visited the clinic at its new site since September 2006.

**Technology Transfer Initiative (TTI):** Through the TTI, Roche employees provide the technical expertise (free of charge) to produce saquinavir, our sec-

ond-line HIV medicine, to local manufacturers in the LDCs and sub-Saharan Africa. The manufacturers can then freely produce the drug for use in the LDCs and sub-Saharan Africa because, in line with Roche policy, we do not enforce the patent in these countries. We signed agreements with two additional manufacturers in 2007 in Ethiopia and Zimbabwe, and four additional agreements in Bangladesh, Kenya, Tanzania and Zimbabwe were announced in early 2008. Nine manufacturers have signed up since the TTI was launched in January 2006. Manufacturers can also use their new expertise to make other products, as described by Archibald Chimuka, Director of Regulatory Affairs, Varichem Pharmaceuticals, Zimbabwe:

*'For us the benefits go beyond the production of saquinavir, the TTI improves our entire technical and quality systems.'*

**NGO pilot training scheme:** The Roche Centre for Applied Development provides clinical pharmacology, sample handling and drug supply management services. The centre is partnering with NGOs to help them build healthcare capacity in developing countries. We are sponsoring pharmacists and doctors from LDCs to spend between three and six months at a Roche clinical pharmacology unit. The training will concentrate on the requirements for registering pharmaceuticals, good clinical practice and drug development, as well as the conduct of Phase I studies. Trainees will then use their new skills to manage clinical trials in their own countries.

**Working with public health organisations:** Roche is working with international public health organisations to help increase access to laboratory services. Together with organisations such as the Clinton Foundation HIV/AIDS initiative, we are providing sustainable diagnostic solutions for early infant diagnosis in 35 resource-limited countries. Our innovative dried blood spot technology has further increased access to laboratory tests and HIV care for people living in rural areas. Other initiatives include HIV monitoring for patients on government ARV programmes, the development of screening techniques for tuberculosis and resistant strains, and capacity-building initiatives such as our training academies.

Rochagan technology transfer: In 2003, we shared the methodology for manufacturing Rochagan – the only commercially available treatment for Chagas disease – with the Brazilian government. The intention is for them to supply the drug globally now that Roche has ceased production. In November 2007 the state-owned manufacturers released the first batch of 200,000 units to the Ministry of Health, for distribution in Brazil. The value of donating this technology has been estimated at over 1 million Swiss francs.

There is a full list of our programmes to increase access to medicines and share our expertise on our website at [www.roche.com/sus-access\\_summary](http://www.roche.com/sus-access_summary)

#### Access in lower middle-income countries

We recognise that some more developed countries also need help to make healthcare available to all those in need. We continue to supply our second-line HIV medicines at reduced prices in the low and lower middle-income countries as defined by the World Bank – 56 nations in total.

#### Access in the developed world

Even in wealthier countries, those on lower incomes can struggle to afford healthcare, or the insurance to pay for it. In the United States, we support several patient assistance programmes providing free healthcare to people who have no or inadequate health insurance. In 2007 over 34,000 patients benefited from these programmes.

Genentech launched its Avastin Patient Assistance programme in February 2007. This provides patients being treated for an FDA-approved cancer indication, and who reach a dosage of 10,000mg within a year, with free Avastin for the remainder of the 12-month period. The programme is open to all patients receiving Avastin, regardless of insurance coverage.

Roche also sponsors the National Foundation for Transplants' Home Away from Home programme in the US. This provides free hotel accommodation to transplant patients and their families who need to stay near the hospital during transplant operations and related care. Roche's support helped more than 100 patients in 2007.

#### Roche Group access programmes in 2007

Patients taking part in phase I-IV trials globally	201,752
% of all HIV/AIDS patients living in countries eligible for no-profit Roche medicines	63%
% of all HIV/AIDS patients living in countries eligible for reduced-price Roche medicines	86%
Patients benefiting from patient assistance programmes (USA only)	34,482

Goal: Continue to develop innovative medicines and ways to increase access to our products globally.

#### More on the web:

- Progress and goals: [www.roche.com/sus-progress\\_goals](http://www.roche.com/sus-progress_goals)
- Access to healthcare: [www.roche.com/sus-access\\_programmes](http://www.roche.com/sus-access_programmes)
- HIV/AIDS medicine patent and pricing policies: [www.roche-hiv.com](http://www.roche-hiv.com)
- Roche Patient Assistance Foundation: [www.rocheusa.com/programs/patientassist.asp](http://www.rocheusa.com/programs/patientassist.asp)
- Genentech Patient Access Programs: [www.gene.com/gene/products/access](http://www.gene.com/gene/products/access)
- Chugai Pharmaceutical Corporate Social Responsibility Report: [www.chugai-pharm.co.jp/english/corporate/csr](http://www.chugai-pharm.co.jp/english/corporate/csr)



A chemotherapy patient receiving NeoRecormon during dialysis

Anemia. An abnormally low red blood cell count, usually due to chronic kidney disease or cancer chemotherapy. Worldwide more than 500 million people suffer from anemia, which can cause debilitating fatigue and severely reduce quality of life. Genetically engineered medicines from Roche correct anemia by stimulating the production of red blood cells. As a result, they also prevent potential long-term complications, including decreased survival in cancer patients and cardiovascular disease.

# Responsible management

As a global, research-based healthcare company, many aspects of our work pose both risks and opportunities for our business and key stakeholders.

We must manage each aspect responsibly and effectively, whether the potential impacts are ethical, economic, social or environmental. No single department is responsible for managing sustainability. All group operations integrate sustainability practices into their work and decisions. This approach is coordinated by our Corporate Sustainability Committee.

## The business case for sustainability

Developing new drugs and diagnostics takes many years, making it essential that our business is sustainable in the long-term. In 2006 we reported on the work carried out to develop a deeper understanding of the business case for sustainability.

In 2007 we took further steps to fully integrate sustainability practices into our business. Our Corporate Sustainability Committee ran a workshop with 60 representatives from all relevant corporate and divisional functions, to confirm that the sustainability issues we had previously identified and continue to manage are still the most relevant to our business. The results were discussed with the Executive Committee and the Board of Directors' Committee for Governance and Sustainability. As a result, we have agreed to focus our investment and efforts on six sustainability areas (see table). We will begin to collect data for reporting our progress in these areas in early 2008.

Safety, health and environmental issues are not included, as our programmes in these areas are well established.

In 2007 we were included in the third annual Corporate Knights and Innovest list of the global 100 most sustainable companies, announced at the

World Economic Forum in Davos. We were also reselected for the Dow Jones STOXX and World Sustainability Indexes and the FTSE4Good Series. This ranks us among the 250 most sustainable large companies in the world.

### The business case for sustainability

Sustainability area	Subtopics
Innovation capacities	Investment in R&D in new or distinctive medical areas
	Efficiency of R&D
	Investment in emerging technologies
Value of Roche products and services	Differentiating existing product portfolio
	Personalised healthcare
	Benefits to patients
	Benefits to healthcare systems
Pricing and reimbursement conditions	Pricing of medical products
	Conditions for reimbursement
Access to Roche products and services	Number of patients with access to our products
	Market share with access to our products
Relationships with stakeholders	Employees
	Patients
	Investors
	Medical community
	Healthcare payers
	Governments and regulators
Attractive and responsible employer	Suppliers and business partners
	Attractive employer
	Talent development
	Performance management and development
	Diversity and non-discrimination

Goal: Ensure that contributing to sustainable development is part of our daily work and increases the success of our business.

**More on the web:**

- **Progress and goals:**  
[www.roche.com/sus-progress\\_goals](http://www.roche.com/sus-progress_goals)
- **Group key performance indicators:**  
[www.roche.com/sus-kpi.pdf](http://www.roche.com/sus-kpi.pdf)
- **Business case for sustainability:**  
[www.roche.com/sus-bus\\_case](http://www.roche.com/sus-bus_case)
- **Managing sustainability:**  
[www.roche.com/sus\\_princ-mana](http://www.roche.com/sus_princ-mana)

**Managing risk**

All businesses face a variety of risks that could prevent them from achieving their goals. Our Risk Management Charter defines our framework for controlling risks. We list the typical risks to our business on our website.

At Group level, the Corporate Risk Management function coordinates and aligns our risk management processes. Each business unit and global function assesses its risks and develops plans for controlling any that are significant. These plans are monitored and reviewed regularly.

Our business units and employees are accountable for managing any risks identified in their work. When a risk becomes apparent, employees work with their line manager to take the appropriate action described in the risk plan.

The Corporate Sustainability Committee assesses sustainability-related risks and ensures plans are developed to manage them. These risks are identified in regular workshops and assessed based on participants' knowledge and experience, as well as stakeholder dialogue. The Committee flags the risks identified to management, for inclusion in the Group risk management process as appropriate.

To increase awareness of the process throughout the Group, we plan to introduce a risk management section on our intranet in 2008.

**More on the web:**

- **Risk management and compliance:**  
[www.roche.com/sus-risk\\_man\\_compliance](http://www.roche.com/sus-risk_man_compliance)

**Compliance**

Our Corporate Principles describe the company we want to be: one our employees are proud to work for and our partners trust. Combined with our directives, guidelines and policies in specific areas, these principles form our Code of Conduct, which we expect employees to follow at all times.

In 2007 43 alleged compliance failures were reported. Of these, 29 required corrective action, including 17 cases where the employee's contract of employment was terminated.

In May 2007 we completed the worldwide rollout of our Code of Conduct e-learning programme (this excludes US affiliates, which have their own compliance programmes). More than 90% of employees took part, and we will maintain this level of participation by systematically including all new hires in the programme.

This basic training has been complemented by Behaviour in Business training for members of the finance functions at our headquarters and affiliates. Employees in pharmaceutical marketing received additional training on our revised standard operating procedures for good marketing practice.

In 2007 we established a dedicated training and compliance team within our pharmaceutical business's global medical affairs department. The team leads the development of training in Roche standard operating procedures, guidelines and policies, and international guidelines and regulations. The training will foster full compliance. We developed it in response to an increasing focus on compliance as well as rising regulatory requirements.

Goal: Strengthen ethical compliance and awareness in all Roche activities.

**More on the web:**

- **Progress and goals:**  
[www.roche.com/sus-progress\\_goals](http://www.roche.com/sus-progress_goals)
- **Corporate Principles and Code of Conduct:**  
[www.roche.com/sus-principles\\_code\\_conduct](http://www.roche.com/sus-principles_code_conduct)
- **Compliance officer:**  
[www.roche.com/com\\_gov\\_comof](http://www.roche.com/com_gov_comof)

## Security

Due to the increasingly global nature of criminal activity, violent activism and terrorism, it is clear that we need to coordinate security at a global level.

Following an audit of our security practices globally, in 2007 we created the new position of Corporate Security Officer within the Corporate Safety, Health and Environmental Protection team. The CSO will establish a Roche Global Security Network. He will coordinate all security activities relating not only to people, sites and buildings, but also to aspects of data protection and product counterfeiting.

## Biosimilars and generic products

When any drug reaches the end of its patent period, the related science and methodology are made freely available to companies interested in producing a generic version. Sharing the expertise of innovative companies in this way boosts availability of the product and reduces the cost. This frees up money within the healthcare system for other medicines.

This has begun to happen with biopharmaceuticals – medicines produced using biotechnology. Unlike other synthetic active ingredients, even tiny differences in these drugs can make a big difference in clinical safety and efficacy. The manufacture of both the active agent and the finished product requires an extremely high level of quality control to ensure clinical safety, as the risk to patients of even slight changes in the drug are extremely difficult to predict.

It cannot be assumed that any so-called biosimilar product is identical to the original. Such drugs cannot be brought to market without undergoing extensive preclinical and clinical trials and robust pharmacovigilance (collecting, processing and assessing information from healthcare providers and patients on adverse events). Experts and regulatory authorities agree that the approval of biosimilars requires its own set of guidelines, and we are cooperating and contributing to their development. In June 2007 we invited local specialists, international experts and regulators from neighbouring countries including China, Malaysia, the Philippines, Taiwan and Thailand to an interna-

tional conference in Jakarta, Indonesia, to discuss biosimilars.

## Compulsory licensing

Governments sometimes grant exceptions to patent protection to increase the volume and availability of a drug. This is known as compulsory licensing. Manufacturers do not have to obtain the patent holder's permission to produce a version of their drug, but do have to pay a licensing fee.

When there is a need to scale up production of one of our medicines to prepare for a pandemic, for example, we identify companies with the right capabilities and quality standards and issue them with voluntary licences. This way, we can ensure that products manufactured under licence are safe for patients. We work closely with governments to ensure that the need for compulsory licensing does not arise. We used this approach to increase capacity production of our influenza drug, Tamiflu, in consultation with governments and the World Health Organisation.

### More on the web:

- Biosimilars: [www.roche.com/sus\\_eth\\_bios](http://www.roche.com/sus_eth_bios)
- Global patent function: [www.roche.com/sus-patents](http://www.roche.com/sus-patents)

## Responsible marketing

The marketing and sale of pharmaceutical and diagnostic products is heavily regulated to ensure that patients, healthcare professionals and health authorities receive factual information on which to base treatment decisions.

We follow external guidelines and codes of practice for marketing our products. These include the World Health Organisation's Ethical Criteria for Medicinal Drug Promotion, the EFPIA Code of Practice for the Promotion of Medicines and the IFPMA Code of Pharmaceutical Marketing Practices. As an active member of several major industry organisations, we contribute to regular reviews of these codes of practice.

We also have internal guidelines on the design and use of promotional materials and activities. These include a set of guidelines for working with patient groups. We recognise that patient groups are increasingly important partners, and the guidelines aim to create mutually-beneficial partnerships based on respect, independence and transparency, and to give patients a role in decisions about their health and well-being. In 2007 we expanded the use of these guidelines to include our diagnostics business, as well as pharmaceuticals. Also in 2007 we listed on our website all patient groups that receive more than 30,000 Swiss francs (or local equivalent) annually in financial support from Roche headquarters. We are also updating guidelines for engaging with government officials on policy, funding and patient access issues. These are being finalised and will be circulated to all affiliates early in 2008.

#### More on the web:

- **Marketing guidelines:**  
[www.roche.com/sus-marketing](http://www.roche.com/sus-marketing)
- **Working with patients:**  
[www.roche.com/sus\\_eth\\_pgr](http://www.roche.com/sus_eth_pgr)

### Product quality and patient safety

Almost all medicines have undesirable effects in some patients. Our primary concern is to ensure the benefits of taking our products outweigh the risks to patients, and we make every effort to reduce the likelihood of adverse events occurring.

We use a rigorous process of testing, monitoring and analysis both before and after launch to help ensure the benefits of our products outweigh the risks in all patient groups at all times. We investigate all adverse events reported to determine those that could be related to use of our products. All adverse events are assessed to re-evaluate whether the benefits of the drug still outweigh the risks. Equally robust procedures are in place to promptly inform patients, healthcare providers and regulators when new safety information is confirmed.

In 2007 we expanded our website to describe these procedures in more detail:  
[www.roche.com/sus-patient\\_safety](http://www.roche.com/sus-patient_safety).

In June 2007 we recalled our HIV medicine, Viracept in all countries where it is sold (except the United States, Canada and Japan, where it is manufactured and sold by Pfizer). After receiving reports that the tablets had a strange odour, we discovered that some batches contained increased levels of the chemical ethyl methansulphonate (EMS). An investigation showed that the affected batches were contaminated when Viracept production equipment was cleaned.

There are few available data on the effects of over-exposure to EMS, although it is a known mutagen and can harm DNA. Some mutagens are linked with cancer and can be harmful during pregnancy. We chose to recall all batches of Viracept to remove the risk of any more affected tablets being used. We are establishing registers of patients who took the drug between March and June 2007 in all countries, to monitor people who may have been exposed.

To keep our stakeholders – particularly those in low-income countries – fully informed, we provided buyers with advice for healthcare professionals about alternative medicines, briefed patient representatives and NGO treatment providers at the International AIDS Society meeting in July 2007 and conducted an advisory board meeting for NGO treatment providers in Geneva in August 2007. In October 2007 the European Commission reinstated our authorisation to market Viracept, and supply is being re-established in the majority of affected countries.

In response to the recall, our pharmaceuticals business began a comprehensive quality review. This covers all manufacturing, quality control and maintenance processes in our worldwide supply chain, for all products. The review involves hundreds of employees, suppliers and contractors and has so far taken more than 35,000 working hours. It will improve and identify additional global and local measures to safeguard against any potential risks to patient safety in future. This systematic approach is now standard in all manufacturing units.

Goal: Provide highly effective medicines whose benefits exceed risks and with minimal adverse drug reactions.

**More on the web:**

- **Progress and goals:**  
[www.roche.com/sus-progress\\_goals](http://www.roche.com/sus-progress_goals)
- **Patient safety:**  
[www.roche.com/sus-patient\\_safety](http://www.roche.com/sus-patient_safety)
- **Viracept recall information:** [www.roche-hiv.com](http://www.roche-hiv.com)

**Clinical trial registry and results database**

We share information about new clinical trials and the results of completed trials on a dedicated website, [www.roche-trials.com](http://www.roche-trials.com). This allows more patients to learn about trials they may be able to take part in, and means more people can benefit from the findings. The trial registry and results database are hosted by a third party to ensure independence.

As of 31 December 2007 details of 480 pharma protocols, 23 diagnostics protocols and 162 trial results have been published on the site since its launch in April 2005. The database lists studies on more than 70 conditions, including Alzheimer's disease, asthma, around different 25 cancers, cardiovascular disease, depression, diabetes, hepatitis, HIV/AIDS, influenza, and obesity. There were more than 110,000 visits to the website in 2007.

We also post all our trials on the US National Institute of Health's global registry at [www.clinicaltrials.gov](http://www.clinicaltrials.gov)

**Ethics in R&D**

The cutting-edge science behind many medical breakthroughs can often create ethical concerns as well as benefits. We cannot discover new medicines and diagnostics without exploring these boundaries, and must effectively manage all risks, as well as opportunities, which arise during our research and development.

Our global position statement on clinical research makes clear our commitment to high ethical standards and our position on specific ethical concerns affecting our work. These include the use of genetics and the conduct of clinical trials in developed and developing countries.

Our R&D employees inevitably do encounter ethical concerns in their work, and we have a clear procedure for resolving these. If the team and their manager cannot come to an agreement on the issue, employees can contact our Global Ethics Liaison Office. This function will consult with peers and subject-matter experts within the company to find a solution. If any concerns remain, the issue may be referred to an internal committee of experts for review and then, if there is still uncertainty, to our independent advisors, the Clinical Research Ethics Advisory Group (CREAG).

In December 2007 we introduced an online ethics training programme for Roche employees globally. This shows pharmaceutical development employees how to resolve ethical issues that arise during their work. The programme also covers the Roche Framework for Discussing and Resolving Ethical Issues in Clinical Research, and the process for seeking guidance when required.

In 2007 30 concerns were raised with the Global Ethics Liaison Office. All were resolved and none required escalation.

The CREAG meets each year to review the ethical concerns brought to the Global Ethics Liaison Office, and to discuss other ethical matters relating to our work. In 2007 the key topics on the CREAG agenda included our policy on transparency in clinical trials and the new global ethics e-learning programme.

A second independent panel, the Science and Ethics Advisory Group (SEAG), provides us with advice and guidance relating to genetics, genomics and proteomics. Our revised Policy on Human Specimen Repositories was a major topic in 2007 with discussions ranging from informed consent and the pros and cons of anonymous patient samples, to participants' ability to withdraw from future research.

**More on the web:**

- **Responsible R&D:**  
[www.roche.com/sus-research\\_and\\_development](http://www.roche.com/sus-research_and_development)
- **Policy and position papers:**  
[www.roche.com/sus-policies\\_positions\\_guidelines](http://www.roche.com/sus-policies_positions_guidelines)
- **Genetics and genomics:**  
[www.roche.com/sci\\_gengen](http://www.roche.com/sci_gengen)

## Responsible animal testing

As a research-based pharmaceutical company, our role is to find more effective treatments and diagnostics that help patients with serious diseases live longer and enjoy a better quality of life. Before any medicine can be used in humans, it must be thoroughly tested to ensure it is safe. We use animal testing wherever necessary to ensure patient safety, as around 70% of serious side effects in new medicines cannot be detected by using non-animal experiments. In many cases, animal experiments are required by regulatory authorities.

We take seriously public concern about animal welfare, and only use animal tests where no scientifically-robust alternative is available. We also use the fewest animals needed for reliable results, and always use methods that cause the least amount of pain and distress.

In 2007 we achieved our goal for all our pharmaceutical research sites to receive accreditation from the Association for the Assessment and Accreditation of Laboratory Animal Care (AAALAC).

In 2008 we will introduce an award for alternative methods to animal research, open to all Roche employees worldwide. The award will be coordinated by the Corporate Sustainability Committee and aims to encourage innovation and knowledge sharing in our R&D, and to reinforce our commitment to improving animal welfare.

The award will be based on the well-established 3Rs concept of replacing animal tests with non-animal alternatives, reducing the number of animals needed and refining existing procedures to improve animal welfare, including housing and care of animals. There will be two categories: scientific progress for scientists working with animals and animal housing and care for people working with animals. Winners in each category will receive a cash prize. We plan to present the first award for alternative methods to animal research in the third quarter of 2008.

### More on the web:

- **Animal welfare:** [www.roche.com/sus-animal\\_welfare](http://www.roche.com/sus-animal_welfare)

## New technologies

Identifying and investing in emerging technologies is critical to secure and improve our product pipeline. This strategy has already proved hugely successful for Roche. We were one of the first pharmaceutical companies to become involved in biotechnology in the 1980s through our relationship with Genentech. Biopharmaceuticals now account for 55% of our Group pharmaceutical sales. We also used advances in molecular biology to set new standards in diagnostics with our polymerase chain reaction (PCR) technology.

We monitor the development of new technologies such as nanotechnology and stem cell research to identify those with the potential to advance medical science. Such emerging technologies may be the essential building blocks for the next generation of innovative therapies such as Ribonucleic Acid interference (RNAi, see below), improved biopharmaceuticals, in silico prediction, and oral peptide delivery, as well as therapeutic vaccines and biomarkers. The long-term impacts of new technologies on society and the environment cannot be known, and work to establish what these effects might be must form an integral part of any research into their use.

In 2007 we struck a major deal with US-based Alnylam Pharmaceuticals that gives us access to Nobel Prize-winning RNAi technology. The accompanying acquisition of Alnylam's research facility in Kulmbach, Germany – including a team of more than 40 world-class scientists – creates Roche's own RNAi centre of excellence.

RNAi is a natural process the body uses to prevent certain proteins from being made. It opens up potential for a new class of personalised therapies, as it takes effect before potentially disease-causing proteins become active. Drugs developed using RNAi technology could therefore regulate disease-causing processes in a way not possible using established approaches.

### More on the web:

- **New technologies:** [www.roche.com/sus-new\\_tech](http://www.roche.com/sus-new_tech)
- **Biosafety:** [www.roche.com/sus-biosafety](http://www.roche.com/sus-biosafety)
- **Collaborations:** [www.roche.com/divisions](http://www.roche.com/divisions)

Rheumatoid arthritis. One of the most common autoimmune diseases. Rheumatoid arthritis mainly attacks the joints, causing chronic inflammation and pain. Targeted biopharmaceuticals from Roche can relieve the symptoms and reduce the damaging effects of rheumatoid arthritis, improving patients' quality of life.



Examination of a patient with rheumatoid arthritis

# Our people

## In brief

- 3,800 new jobs created
- 10,767 million Swiss francs in remuneration paid
- 2% regretted losses
- 15,300 employees taking part in Roche Connect share programme
- 34.5 hours of training per employee

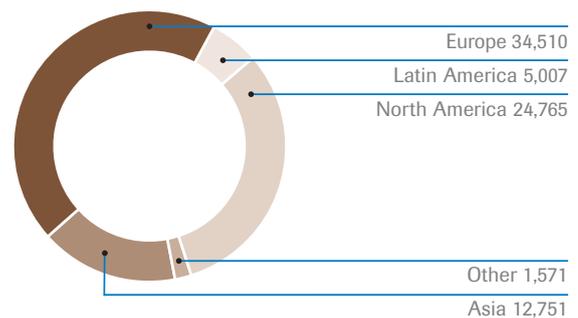
Our business is built on innovation. We need to attract, recruit and retain the most talented employees to help us maintain high levels of innovation and strong business growth. Talent management is one of our key priorities to meet the challenging goals of our 2015 business strategy.

We have gained approximately 400 additional employees through acquisitions and created around 3,800 additional jobs, increasing our workforce to 78,604 employees. Of these, 2.6% are on temporary contracts.

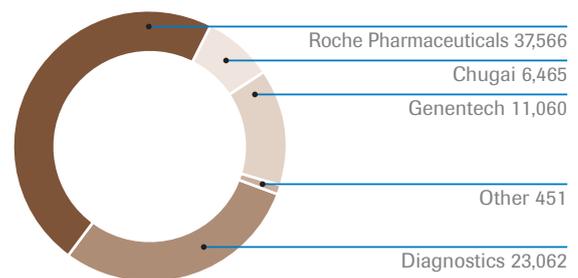
Our focus is on identifying and developing employees for and in key positions, although we also develop the potential of all employees to help achieve our strategic goals. Key to this is adopting a more consistent global approach across our operations. New initiatives include the rollout of a global performance management system and new management software to improve the efficiency of human resources functions across the Group.

In 2007 we began a project to define what it means to work for Roche, to help us convey key messages about Roche as an employer. The core elements – performance, choice, development and respect – reflect the values set out in our Corporate Principles and our Employment Policy. These documents outline what employees can expect from working at Roche, and what we expect from them. We are committed to creating a healthy working environment where employees are treated fairly, with mutual respect, trust and integrity. We offer attractive benefits packages and encourage our employees to realise their full potential through our performance

Employees (FTE) by region in 2007



Employees (FTE) by operating division in 2007



management and development programmes. We value diversity and do not tolerate discrimination of any kind. Three quarters of our companies globally have specific measures in place to prevent discrimination, and no violations were recorded in 2007.

Total employees (full-time equivalent, FTE)

	2007	2006	2005
Number of employees	78,604	74,372	69,795

## Attraction and recruitment

The market for talented individuals is very competitive. Our goal is to be seen as the employer of choice. In 2007 Roche was named one of the top 20 employers in the healthcare industry by Science magazine, for the fifth year running. Various affiliates around the world were also named employers of choice in a range of local external ratings.

The Roche careers website enables prospective employees to find everything they need to search and apply for jobs online. Most available positions in the company are posted on our careers website, along with information on what we offer our employees. Our online recruitment system helps our local operations find the right people to fill available positions.

More than 85,000 prospective candidates have so far registered in our e-recruitment system. Some 48 companies across the Group in 37 countries are using the system to match candidates with jobs.

Using the web enables us to reach far more people than through any other media for recruitment. More than 4.8 million people visited the Roche Careers website in 2007 alone.

Prospective candidates submit their résumés knowing they will be considered for any suitable positions that arise. Around 800 positions are waiting to be filled at any one time. Registered candidates receive email notifications about new posts becoming available that might be of interest to them. We have hired 4,100 talented individuals in this way since we launched our e-recruitment system in 2005 more than 2,100 in 2007 alone.

This facility is also available to existing employees via our careers intranet site. We encourage employees to develop their careers within Roche, rather than looking outside the company. Most available positions are listed on the intranet to ensure transparency in our internal recruitment and communicate development opportunities to our employees. More than 4,000 positions have been filled internally using the global e-recruitment system so far, including 2,100 in 2007.

See our <http://careers.roche.com> for more information.

## Performance and development

We want all our employees to achieve their full potential, further their own career development and strengthen our business. Employees receive regular feedback on their performance and meet

## Secondments to share our expertise and enrich employee experience

### Roche LifeCycle Team Leader, Bart Vanhauwere.

I am on secondment to the Swiss Tropical Institute (STI) in Niger, where I supervise and report on Global Fund programmes. The Global Fund to fight HIV/AIDS, Malaria and Tuberculosis finances health programmes in needy countries, and recruits Local Fund Agents to provide oversight and advice ([www.theglobalfund.org](http://www.theglobalfund.org)). In Niger, the STI acts as the Local Fund Agent.

I attend meetings, write reports, review budgets, and visit hospitals and pharmacies countrywide. I also coach my colleagues so they can continue this work when I leave, and help out at a local outpatient clinic once a week. I believe that teaching management skills to others is an equally, if not more valuable contribution than carrying out projects ourselves.

Funding is based on the results of quarterly assessments. We measure progress using indicators such as the percentage of pregnant women receiving malaria prevention, or HIV/AIDS patients receiving anti-retroviral treatment. My most striking observation is that – despite the poverty and challenges they face – the people here are optimistic and their creativity infinite. The phrase I hear most often is ‘no problem’.

The secondment has enabled me to use my skills to help others, and offered me new experience personally.

with their managers to discuss development opportunities and their career goals. In 2007 81% of our employees took part in our performance management programmes and 56% agreed development plans. This year we invested 138 million Swiss francs in external training and dedicated training resource within the Group, equivalent to around 2.7 million hours in total or 34.5 hours per employee.

We believe in lifelong learning to retain our best talent. We offer training programmes across our global operations, including coaching, language courses and programmes on change management to ensure employees have the skills needed in our business. A new course on behaviour in business was introduced in 2007. Most of our training programmes are run by our divisions and individual sites, and tailored to meet local needs.

In 2007 145 of the top managers in the company participated in Roche Engage, our senior executive development programme to promote leadership skills and help us achieve key business goals. Roche Molecular Diagnostics ran a two-day training programme for 270 managers in the US this year to help them develop their leadership skills. Roche Pharmaceuticals' Centre for Leadership Effectiveness is now in its fifth year. Roche Diagnostics' APAC Discovery programme continued in 2007 with 25 mid- and top-level managers taking part in the two-week leadership development course at the Nanyang Business School in Singapore.

We encourage employees to gain experience working in different parts of the business and in different countries. Around 376 employees from 35 countries are currently on international assignments in 55 countries. In 2007 we announced a Group-wide programme enabling employees to work on secondment for healthcare projects in developing countries, spending between three and 18 months away from their normal jobs. The first three participants have begun their secondments – at the Global Fund in Niger, at an outpatient healthcare centre in Togo and in Ethiopia.

### Retention

Retaining the best employees shows that our people management is working successfully. In 2007 our total employee turnover rate was 8.7% (compared with 6.6% in 2006). We estimate that only 2.0% (2.1% in 2006) were regretted losses (not initiated by Roche). We view this, together with our consistently high ratings in external best employer surveys, as a good indication of employee satisfaction.

Turnover	2007
Total	8.7%
Europe	8.4%
Latin America	9.5%
North America	8.5%
Asia	7.5%
Other*	22.5%

\* Sales and Marketing restructuring in Australia and South Africa.

In 2007 two Diagnostics business units moved certain functions from Graz in Austria as well as from Mannheim and Penzberg, in Germany, to new facilities in Rotkreuz, Switzerland. Employees were invited to visit Rotkreuz and spend several days exploring the area with their families before deciding to make the move.

Goal: Establish programmes to retain and attract the best talent for the right job, and foster performance culture

### Employee engagement

Employees who are well-informed and fully engaged in what we do help to strengthen our business. We communicate with employees about our business strategy and other key global activities through regular face-to-face lunch meetings, live webcasts, our intranet, employee magazines in various languages, internal newsletters and messages from the Corporate Executive Committee.

We consult our people about significant changes to the business and other issues that are relevant to them through employee representative bodies. More than 50% of our people are represented by works councils or similar organisations, including the Roche Europe Forum in Europe (representing 34,500 employees). We recognise the right of our people to join employee organisations, and engage in open dialogue with legitimate unions in countries where we operate.

This year, we reviewed and updated our policy on employee data privacy. Our goal is to protect information about employees as far as possible and comply with relevant legislation. Where appropriate, we have negotiated data privacy agreements between different parts of the business or with works councils.

### Pay and benefits

We offer our people competitive rates of pay that recognise their contribution to the business. We also provide excellent benefits, long-term job security, development opportunities and a good working

Osteoporosis. A disease that makes bones porous and brittle. One in four women and one in five men over the age of 50 are affected. If started in time, preventive treatment can help patients avoid complications and costly hospital stays. An innovative medicine developed by Roche reduces the risk of vertebral and non-vertebral fractures. It is available as a once-monthly tablet and as an injection administered just once every three months. Roche also supplies tests that allow doctors to closely monitor patients' responses to therapy.



Treatment with Bonviva can be a valuable adjunct to exercise therapy in patients with osteoporosis

environment – all of which we consider just as important as a competitive compensation package.

This year, we continued to align the remuneration packages offered by our local affiliates with the Group Remuneration Policy launched in 2006. Twenty-nine percent of our employees are covered by collective bargaining agreements. In 2007 our total remuneration cost was 10,767 million Swiss francs.

Roche offers pension plans to employees in most countries to help them save for their retirement. In 2007 as part of the continuing roll out of our global defined contribution strategy, we launched new defined contribution plans in eight countries, including Canada, Germany and the United States.

Our Roche Connect programme allows most of our employees (except those in the US) to purchase non-voting equity securities each month at a discounted rate. Roche contributes a further 20% on top of those purchased by employees to help protect them from any fluctuations in the market. In 2007 15,300 employees in 41 countries – 36% of those eligible – were part of the programme, up from 13,800 in 2006. The Roche Long-Term Plan rewards senior managers' performance with non-voting equity securities in the company. A total 2,700 senior managers have taken part in the programme since it began in 2005, with 700 joining in 2007 alone.

### Diversity

Our diverse workforce provides the inspiration and innovation on which our business depends. Roche employees come from a broad range of backgrounds, cultures, religions and nationalities. We do not tolerate any form of discrimination.

In all, more than 140 nationalities are represented at Roche – 71 in Basel alone. Of the 7,800 people working at our corporate headquarters in Basel, 58% are not originally from Switzerland. Local people account for the majority of our affiliates' workforces, and make up around 75% of their senior management teams.

In 2007 women accounted for 45% of our total workforce. This year, 32% of our managers and 7% of senior managers (approximately top 120 employees) were women, compared with 31% and 5% respectively in the previous year.

Two of the 11 members of our Board of Directors are women, and three women are on the executive committees for the Roche Group, and our Pharmaceuticals and Diagnostics Divisions. We are working to attract more women to Roche, particularly in management roles. Our work-life balance programmes help employees balance work and family commitments.

### Gender diversity

	2007	2006	2005
Women in total workforce	45%	45%	43%
Women in management	32%	31%*	32%
Number % of women in top 120 (80 in 2005/2006) management positions	8 (7%)	4 (5%)	7 (8%)
Women candidates for top management positions	20%	22%	16%

\* Restated due to a reporting error in 2006 Annual Report.

### Health, safety and well-being

The safety, health and well-being of our employees are vital to the well-being of our business. All Roche employees are responsible for maintaining high standards of health and safety at work. This is managed by our corporate Safety, Health and Environmental Protection (SHE) team. See page 80 and our website for more details on SHE management.

Goal: Reduce the Roche Accident Rate by 20% by 2010 from 2005 baseline (workdays lost/employee)

**Health and safety**

	2007	2006	2005
Roche Accident Rate (inc. fatality)	0.162	0.083	0.099
Roche Accident Rate (exc. fatality)	0.076	0.083	0.099
Occupational accidents	482	473	563
Occupational illnesses	311	302	333
Work-related fatalities	1	0	0
Work-related accidents per million working hours	3.46	3.67	4.66

We measure our performance on health and safety using the Roche Accident Rate (RAR), based on the number of working days lost due to occupational accidents per employee per year.

We deeply regret that one of our medical representatives died in a road accident while working. This was the first fatality in 7 years at Roche. Because a fatality is represented in the RAR as 6,600 lost working days, this single incident caused the RAR to rise significantly for the reporting year.

Excluding the fatality, the RAR was 0.076 in 2007 a decrease of 7.7% from last year. The total number of accidents among employees in 2007 was 482, up 1.9% from 2006. Accidents among contractors working for Roche decreased by 20% this year, although the total hours worked increased.

Both the number of recognised cases as well as the total lost days due to occupational diseases slightly increased in 2007. A total of 311 recognised cases (up 3.7%) was reported, resulting in 1,303 lost working days (up 27%).

We investigate every occupational accident and, where relevant, issue a report outlining details of the hazard on our intranet so other sites can take preventative action. Our Basel headquarters won the Basel-Stadt Social Commitment Award in 2007 for helping employees rehabilitate when they become disabled or unwell.

Our range of well-being programmes includes free medical check-ups, workplace ergonomic evaluations and counselling. We also provide healthy options at staff restaurants and fitness centres at many of our sites to encourage employees to lead

healthy lifestyles. We offer part-time, flexi-time and home-working options where the requirements of the job permit, to help employees balance their work and family commitments. Around 5.6% of our employees work part-time. Parental leave and sabbaticals can also be arranged.

**More on the web:**

- Progress and goals: [www.roche.com/sus-progress\\_goals](http://www.roche.com/sus-progress_goals)
- Online recruitment: <http://careers.roche.com>
- Corporate Principles: [www.roche.com/sus-principles\\_code\\_conduct](http://www.roche.com/sus-principles_code_conduct)
- Group Employment Policy: [www.roche.com/sus-employment\\_policy](http://www.roche.com/sus-employment_policy)
- Human rights: [www.roche.com/sus-human\\_rights](http://www.roche.com/sus-human_rights)
- Local employer of choice awards: [www.roche.com/sus-emp\\_of\\_choice](http://www.roche.com/sus-emp_of_choice) and <http://careers.roche.com>
- Safety, health and environment: [www.roche.com/sus-she](http://www.roche.com/sus-she)

# Our communities

At Roche, we support communities through corporate donations, sponsorship and employee volunteering. But we do not view this simply as philanthropy. It plays an important part in inspiring our employees to make Roche a successful, sustainable business.

In line with our business strategy, innovation lies at the heart of our community involvement. We encourage innovation in science, culture and the arts through a range of educational and other projects. We also make a significant contribution to communities by improving access to medicines and diagnostic tests for those who need them most. We only donate drugs in disaster relief and pandemic situations.

We focus our support on projects where we can use our knowledge and expertise to make the most difference. If projects require different expertise, we work with local partners who can provide this.

We measure the success of our community support by the impact we have, not the amount we spend. Examples include the number of patients or community members benefiting from an outreach programme, the number of teachers accessing our scientific resources and students they reach, and the size of an audience at an arts performance. This is why we do not publish detailed financial information about our contributions. Instead we focus on the benefits to communities of some of our key projects and the value they bring.

## Community support in 2007 by area (%)

Humanitarian and social projects	85.5%
Science and education	11.2%
Arts and culture	1.8%
Community and environment	1.5%

## Promoting advances in science

Scientific innovation is fundamental to our business. Roche and its foundations support research

and education around the world to promote advances in science and medicine, and encourage young scientists.

The Roche Organ Transplantation Research Foundation, for example, funds research to improve the success of organ transplantation. The Roche Foundation for Anemia Research (RoFAR) granted 4.2 million Swiss francs in 2007 to 15 projects that investigate anemia, its mechanism and outcomes. Since 2004 RoFAR has awarded 39 regular grants and one special grant totalling over 8.3 million Swiss francs.

We support young scientists through the Roche Research Foundation. In 2007 this Foundation gave almost 3 million Swiss francs to help 72 students working on biological, chemical and medical research projects.

Talented scientists who want to gain a business degree can apply for scholarships through the Roche MBA Fellowship Programme. This programme is designed to promote leaders in the healthcare sector. In 2007 we again awarded a science graduate a fellowship to join the MBA programme at one of the eleven top business schools in Europe and the United States, including Harvard, INSEAD and the London Business School.

We support three projects near our US pharmaceutical headquarters in New Jersey that promote science education and encourage young people to pursue scientific careers. More than 1,500 high school students have learned about transplant surgery and organ donation since the launch of our Renal Transplant Surgical Classroom in 2004. The Science Bilingual Project has provided after-school science teaching in English and Spanish for more than 200 students since 2000. And, in 2007, we funded 850 high school students to attend classes held by the New Jersey City University's Science Consortium. Of these, 90% chose to continue their scientific studies at college.

## Encouraging innovation in the arts

Artistic creativity is closely related to the scientific innovation at the core of our business. Scientists researching a new medicine and artists or musicians creating a new piece each seek to stimulate a response in human beings – be it physical or emotional – by bringing together existing elements in an innovative way. Roche has been a patron of contemporary arts and music from its inception.

The *Roche Continents* programme is sponsoring a series of concerts featuring music from contemporary composers at the Salzburg Festival in Austria. Selected students are invited to attend the festival and participate in workshops on creative music, arts and science. The 100 students who took part in 2007 can stay in touch with fellow participants and continue exchanging ideas through an online discussion forum.

Every other year, *Roche Commissions* sponsors an exceptional composer to produce a new work to be performed by the Cleveland Orchestra. Since the programme was introduced in 2003, the works have always been performed at two distinguished venues: the Lucerne Festival in Summer and New York's Carnegie Hall.

In 1996 Roche founded the Museum Tinguely in Basel to showcase innovative contemporary art. The monthly live jazz evening held at the museum – Roche 'n' Jazz – has also become very popular.

## Supporting our communities

Our employees help us identify local community projects where Roche can make a real difference. We encourage them to contribute individually by volunteering or fundraising. In 2006 we set up the Roche Employee Action and Charity Trust (Re&Act) as an independent charity to channel employee donations to worthy projects. Re&Act also engages with charities to support long-term projects, and coordinates employee donations to disaster relief and humanitarian projects in developing countries.

In 2007 more than 12,000 employees from 90 countries took part in the annual Global Roche Employee AIDS Walk, in partnership with UNICEF and the European Coalition of Positive People. Roche matched the money they raised through sponsorship to donate a total of 750,000 Swiss francs to support children orphaned by AIDS in Malawi.

Roche employees came to the aid of communities in Peru when a devastating earthquake struck the Pisco region in August 2007. They collected and distributed emergency supplies – food, water, blankets and clothes – to more than 100 families. Roche also donated medicines and diagnostics equipment worth more than 30,000 Swiss francs. Employees will continue to support affected communities by helping them rebuild homes, medical facilities and a school that were destroyed by the earthquake.

Roche Diagnostics in Japan runs an annual charity book fair in Tokyo in aid of the AIDS Prevention Society.

Goal: Establish programmes that build on Roche's tradition relating to sustainable community engagement.

### More on the web:

- Progress and goals: [www.roche.com/sus-progress\\_goals](http://www.roche.com/sus-progress_goals)
- Group policy on donations and criteria for sponsorship: [www.roche.com/sus-giving](http://www.roche.com/sus-giving)
- Roche Drug Donation Policy: [www.roche.com/sus-access](http://www.roche.com/sus-access)
- Roche foundations: [www.roche.com/sus-foundations](http://www.roche.com/sus-foundations)
- Roche 'n' Jazz: [www.roche-n-jazz.net](http://www.roche-n-jazz.net)
- Roche's social responsibility: [www.roche.com/sus\\_csoc-resp](http://www.roche.com/sus_csoc-resp)

# Safety, health and environmental protection

## In brief

- Won the Financial Times/Citi Private Bank Environmental Award for the Greatest Improvement in Carbon Efficiency by a Large Enterprise
- Energy use per employee increased slightly by 1.1%
- Environmental footprint reduced by 5%
- Volatile organic compound emissions reduced by 15%

Respect for the environment is an important part of our wider commitment to safety, health and environmental protection (SHE) in all our activities. This commitment is embodied in our Corporate Principles and SHE Policy (see [www.roche.com/sus-she](http://www.roche.com/sus-she)).

In 2007 we invested 215 million Swiss francs in SHE infrastructure and 306 million Swiss francs in SHE operating costs, including services and personnel.

Pharmaceuticals can enter the environment in a variety of ways: through the manufacturing process, improper disposal of unused medicines, and through patients who take medicines that eventually pass through the human body. We have developed a global position on pharmaceuticals in the environment, which we will publish in 2008. Our medicines show negligible effects on the endocrine system when released to the environment, although this is an increasing concern. Here we discuss the direct SHE impacts of our operations.

## SHE management

In 2007 we updated our SHE guidelines. We made them more precise so they are easier to understand and added new instructions on how the guidelines should be applied in daily business. The new guidelines are available on our internal and external websites. We ask all our employees to follow the guidelines and make SHE a normal part of our business.

Some 630 employees work full-time in SHE across the Roche Group, including a team of 16 people at our headquarters in Basel. The site manager and safety, health and environmental officer (SEO) at each of our facilities ensure the SHE policy and guidelines are implemented locally. Individual employees from each division take on the role of 'eco-delegate' in addition to their regular jobs to help to raise awareness about SHE issues.

We audit sites across the Group to make sure that our SHE policy and guidelines are implemented correctly. In 2007 we audited 27 sites. SHE performance was generally good at these sites and no major non-compliance issues were raised. Recommendations have been made to improve SHE risk management at these sites and their implementation is being supervised by the audit team.

We regularly bring together our SEOs from around the world to train them and raise awareness of our SHE goals. The SEOs take this knowledge back to their sites and use it when training local employees. Site-based training includes lectures and practical, hands-on courses. Employees who are keen to know more can take part in further education programmes about SHE. We provided 125,000 hours of SHE training to 51,500 employees in 2007.

We also train employees to use chemicals safely, and produce information sheets on how to handle particularly hazardous chemicals, to prevent harm to our employees, customers or the environment. Over the past decade we have produced more than 1,000 of these information sheets, and published those for commercialised substances internally and on our website.

We work hard to reduce SHE risks and prevent incidents. We have set up a web-based tool to help site managers to log and assess risks at their facilities. Our corporate SHE team evaluates this information to build a global risk profile and monitors risk assessments by site managers.

We set a number of global long-term SHE goals in 2005. Individual sites have since adopted local goals and developed action plans to help us meet the Group targets. These plans were reviewed and assessed by the Corporate SHE team.

## SHE in our supply chain

We expect our suppliers and their subcontractors to comply with our SHE standards, our code of conduct and all applicable laws. We assess potential new business partners before we work with them, making on-site visits where necessary. We regularly inspect and audit our key suppliers to ensure they continue to comply with our SHE standards, and require them to report any incidents.

If a supplier does not meet our SHE standards we expect them to take appropriate action immediately. If they continually fail to comply, their contract with Roche will be terminated. In 2007 we audited 20 new suppliers. We conducted follow-up audits at further two suppliers to check that required action had been taken. The results were generally good.

## Environmental footprint

We take environmental protection into account throughout the lifecycle of all of our products – from research and production to packaging, transport and distribution, and even during use and disposal when they are no longer in our hands.

Goal: Improve total eco-balance by 10% by 2015 from 2005 baseline (points/employee).

Performance: We calculate the environmental footprint of our business as a whole using the ‘eco-balance’ method designed by the Swiss Agency for the Environment (BAFU). The eco-balance is based on a comparison of our inputs (raw materials and energy) and outputs (emissions and waste). In 2007 our eco-balance was 5.15, down 5% from 5.42 in 2006. Lower emissions to air and reduced waste contributed to this reduction.

This global target helps to drive environmental improvements at individual sites. For example, the Roche Diagnostics North America headquarters in Indianapolis has adapted its lighting and sanitation systems to reduce energy and water consumption, and is building a new chiller plant to reduce ozone-depletion. In 2007 the National Wildlife Federation certified the park at the site as a wildlife habitat.

Our site in Boulder, Colorado, has been invited to join the EPA National Environmental Performance Track programme, which recognises facilities with strong environmental records and encourages them to go beyond their legal requirements.

We use a measurement called the ‘Eco-Efficiency Rate’ (EER) to indicate the effectiveness of our environmental expenditure in relation to sales and the environmental damage caused by our operations. The EER uses data on energy use, emissions, and air and water quality – as well as expenditure and sales – to calculate impacts. We use this information to help us create products with more value and less impact on the environment. A full explanation of the EER can be found on our website. In 2007 our EER was 67.19, an increase of more than 30% from last year. This significant improvement is the result of growth in sales and decreasing environmental expenditure as well as reduced environmental damage.

### Eco-efficiency rate

	2007	2006	2005
Sales (in millions of CHF)	46,133	42,041	35,511
Environmental expenditure (in millions of CHF)	232	255	242
Environmental damage (in millions of environmental damage units)	2.96	3.30	6.02
EER	67.19	49.97	24.39

In 2007 we ran our fourth ECompetition – a contest for employees that takes place every three years. The ECompetition encourages employees to think about how they can improve environmental protection at their facilities. Also this year the Roche Responsible Care Network Awards were presented to sites with the best energy-saving initiatives.

## Winning for the environment

The ECOpetition contest, organised every three years by eco-delegates at our Pharmaceuticals and Diagnostics Divisions, invites Roche employees to suggest how they can improve environmental protection at their facility and reduce costs at the same time. This year, 22 of the 130 proposals submitted were chosen as winners. All winners – 44 staff from 9 countries – were invited to attend a celebratory weekend, held in Switzerland in September.

Many of the winning submissions focused on saving energy and raw materials. In Basel, three employees proposed a way to save 4,000 MWh of energy a year – equivalent to 300,000 Swiss francs – by connecting the air conditioning and heat recovery systems of two buildings to make use of waste heat from water used for cooling.

At the Roche Diagnostics facility in Penzberg, Germany, staff proposed adapting the way they clean manufacturing equipment to save raw materials and energy worth some 1.3 million Swiss francs.

Other proposals looked at ways of reducing waste. Two employees at our affiliate company's facility in Toluca, Mexico, found that by installing a composting system they could reduce organic waste by 40%, while generating new soil to be used to fertilise the surrounding land. The project could also save some 3,600 Swiss francs a year.

All winning proposals will be put into practice with the help of site managers and our corporate SHE team.

per employee was relatively stable compared with last year. This energy use, together with our other greenhouse gas emissions, resulted in 1,052 million tonnes of CO<sub>2</sub> equivalent emissions. This is an increase of 7.4% from our total emissions in 2006, in line with increased energy use. However, greenhouse gas emissions per million Swiss francs of sales reduced by 2.1%.

### Energy use (terajoules)

	2007	2006	2005
Total energy use	13,664	12,467	12,515
Total energy use per million CHF of sales	0.296	0.297	0.352
Total energy use per employee	0.179	0.177	0.190

### Greenhouse gas emissions (tonnes CO<sub>2</sub> equivalent)

	2007	2006	2005
Total emissions	1,052,407	980,008	1,078,445
Total emissions per million CHF of sales	22.81	23.31	30.37

Local initiatives at sites and businesses within the Group are helping us make progress towards our global target. For example, our US affiliates belong to the US Environmental Protection Agency's Climate Leaders Programme. As part of this programme, Roche set a target to reduce greenhouse gas emissions at its US sites by 10% from the 2001 baseline by the end of 2008. We have met this target two years early – cutting our emissions by 10.8% by the end of 2006 – through a range of initiatives at sites across the country. These include installing more efficient equipment at manufacturing facilities, reducing energy used by buildings and introducing more hybrid and electric vehicles to our fleet. Our US operations have set a new target to further cut their emissions to achieve a total reduction of 15% by 2010 from the 2001 baseline.

Several of our facilities use solar energy to reduce their reliance on fossil fuels. Photovoltaic solar power panels have been installed on the roofs of Roche buildings in Leganes (Spain), Branchburg (New Jersey) and Pleasanton (California). The solar panels will prevent more than 900 tonnes of CO<sub>2</sub> emissions each year. Our R&D facility in Palo Alto, California, has begun building a solar power plant on-site and is purchasing wind power.

## Energy and climate change

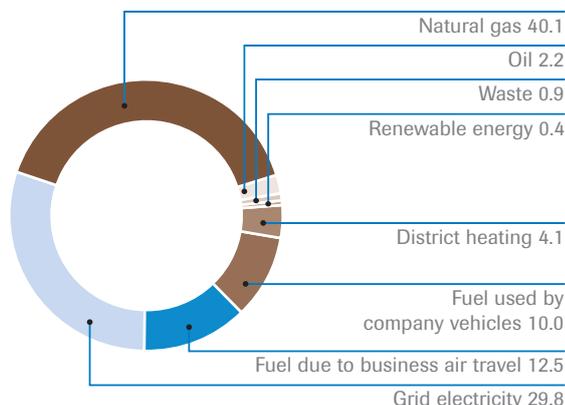
We support international targets to reduce global emissions of greenhouse gases such as carbon dioxide.

Goals:

- Reduce total energy consumption by 10% by 2010 from 2005 baseline (GJ/employee)
- Reduce greenhouse gas emissions by 10% by 2008 from 2003 baseline (CO<sub>2</sub> equivalent unit/sales)

Performance: In 2007 Roche used 13,664 terajoules of energy, up 9.6% from 2006. This increase is lower than business growth, with two new biotechnology manufacturing sites included in the data this year. Despite the increase in absolute terms, energy use

**Energy use by type (%)**



Geothermal energy – heat from the earth – is providing power to heat and cool a new building at our facility in Rotkreuz, Switzerland, reducing the site’s energy use by a third and saving around 25,000 Swiss francs each year. Our plant in Graz, Austria, has set up a free-cooling system that uses cold air from outside during winter. This cut energy use by 4% over the winter of 2006–2007. It also reduces the amount of water needed for cooling.

Our company car fleet and business travel are responsible for 10% and 12.5% of our total energy use/emissions respectively. This is included in our Group Directive on energy saving, introduced in 2007. Individual parts of the business have introduced a number of measures to reduce these emissions. In the US, for example, some 500 low-emission hybrid cars make up 25% of our sales fleet, while Chugai has more than 150. More than a dozen employees in Australia have taken up an offer to use hybrid vehicles as company cars.

We reduce the amount our employees need to travel for business by consolidating several meetings or destinations into a single trip. In some regions we promote the use of high-speed trains if available. Where possible, we use conference calls and video-conferencing to avoid travel completely.

In 2007 we won the Financial Times/Citi Private Bank Environmental Award for the ‘greatest improvement in carbon efficiency achieved by a

large enterprise’ at the European and global level. Since 1996 we have reduced our CO<sub>2</sub> emissions by more than 70% relative to our total turnover. This year, we reduced our emissions per million Swiss francs of sales by 0.6% from 2006.

**Ozone depletion**

Halogenated hydrocarbons are substances that damage the ozone layer and/or affect the climate, or are persistent in the atmosphere. They are used at some of our sites in cooling systems and fire extinguishers. The systems are sealed but some leakage does occur.

Goal: Progressively phase out all halogenated hydrocarbons from our cooling systems and fire extinguishing systems by 2015.

Performance: In 2007 our holdings of halogenated hydrocarbons increased by 5% from 2006 to 148.2 tonnes. Releases of halogenated hydrocarbons decreased by 39% to 4.7 tonnes despite the increase in holdings. We continue to invest in cooling systems that do not require halogenated hydrocarbons. A new chiller plant at the Roche Diagnostics site in Indianapolis, US, will almost completely remove ozone-depleting refrigerants when it becomes operational in 2010.

**Ozone-depleting chemicals**

	2007	2006	2005
Halogenated hydrocarbons holdings (tonnes)	148.2	141.2	148.9
Halogenated hydrocarbons emissions (tonnes)	4.7	7.7	7.2

**Emissions to air**

Our manufacturing and combustion plants emit certain substances that can harm the environment. Volatile organic compounds (VOCs) and particulates contribute to air pollution and smog. When we burn fossil fuels, nitrogen oxides (NO<sub>x</sub>) and sulphur dioxide (SO<sub>2</sub>) are produced. These gases can contribute to acid rain. Roche is committed to reducing its contribution to atmospheric pollution.

Goal: Reduce VOC emissions by 10% by 2008 from 2003 baseline (tonnes VOC/unit sales).

Performance: In 2007 our manufacturing processes and combustion plants emitted 240 tonnes of Volatile Organic Compounds (VOCs), down 14.6% from 2006. We also emitted 25 tonnes of particulates, down 7%, 169 tonnes of NO<sub>x</sub> and 12 tonnes of SO<sub>2</sub> – a decrease of 22% and 20% respectively from last year.

**Emissions to air**

	2007	2006	2005
VOCs	240	281	604
Particulates	25	27	50
Nitrogen oxides	169	219	363
Sulphur dioxide	12	15	151

**Waste**

Safe disposal of chemical waste is essential to prevent damage to the environment and human health. In 2007 Roche activities resulted in the generation of 38,167 tonnes of chemical waste, down 25.4% from the previous year. This decrease is in line with a reduction in production volumes this year. The majority of this waste (97.5%) was incinerated and the rest – mainly inert materials from combustion such as ash or slag – went to landfill.

We are committed to reducing the amount of chemical waste we produce during manufacturing. We recycle waste where possible and look for companies who could use Roche waste products as a raw material for creating something else. A total of 3,584 tonnes of waste was sold to other companies for use as raw materials in 2007.

In 2007 we produced 17,480 tonnes of general waste, 15.6% less than the previous year. Of this, 28% was incinerated and 72% went to landfill. Another 31,697 tonnes were recycled, up by 25% this year.

We monitor our landfill sites containing chemical waste to make sure they do not pose a human or environmental health risk, and take preventative action where necessary. This year we began remediation work on a large landfill site in south

Germany in cooperation with an NGO. The site was used more than 40 years ago for the disposal of chemical and household waste.

In Brazil, we are reducing waste and saving around 32,000 Swiss francs a year by reusing waste cardboard for packaging instead of using new plastic bubble-wrap.

**Waste**

	2007	2006	2005
General waste produced (tonnes)	17,480	20,719	17,604
General waste per million CHF of sales (tonnes)	0.38	0.58	0.59
Chemical waste produced (tonnes)	38,167	51,155	38,380
Chemical waste per million CHF of sales (tonnes)	0.83	1.21	1.08

**Water**

We need clean water to manufacture our pharmaceuticals and diagnostic products. In 2007 we withdrew 21.0 million m<sup>3</sup> of water from different sources, a decrease of 5.1% from last year. Actual consumption as defined by the Global Reporting Initiative (i.e. going into products, used in cooling and air conditioning systems or used for irrigation) reduced by 45% to 2.3 million m<sup>3</sup>. Much of the water we use is for cleaning because our manufacturing processes require strict levels of cleanliness. We are working to reduce our water consumption. For example, a team at our site in Penzberg, Germany, has developed a new cleaning process that is reducing water use by around 1,600 cubic metres a year. This suggestion was one of the winning entries in the 2006 ECOcompetition.

**Water**

	2007	2006	2005
Water withdrawn (million cubic metres)	21.0	22.1	20.9
Water used (million cubic metres)	2.3	4.3	3.9
Wastewater discharged to treatment plant (million cubic metres)	7.1	5.1	7.1
Organic matter discharged to watercourses after treatment (tonnes)	641	313	1,830
Heavy metals discharged to watercourses after treatment (kilograms)	605	1,086	1,463

Contaminated wastewater is a common by-product of manufacturing. We make every effort to ensure this water is safe for release into public treatment plants and watercourses, and process it where necessary at our on-site pre-treatment plants. For example, we have included an ozonolysis wastewater pre-treatment system in the setup of a new plant in Toluca, Mexico, where high potency compounds will be produced. This technique will break down stable molecules and make them biodegradable. This year, we discharged 641 tonnes of organic material into watercourses after treatment. This amount has doubled compared with 2006 because of increased production of biotechnology products, and the inclusion of two new biotechnology plants.

We minimise the amounts of heavy metals – such as chromium, copper and zinc – that are leached from piping by acidic wastewater and can cause environmental damage. This year we emitted 605 kilograms of heavy metals, down by 40% from last year. This significant decrease is due to one of our sites over-reporting in previous years by including emissions of iron.

Our research into trace chemicals in watercourses has found that the majority come from use and disposal of our products by consumers, not as a result of pollution from our manufacturing sites.

**Compliance and incidents**

We comply with all relevant laws and regulations in the countries where we operate. Often, our own SHE global standards exceed local regulations.

Goal: Have no relevant SHE-related fines.

Performance: We received no significant SHE-related fines in 2007. One severe incident was reported. A violent explosion occurred when a bleach solution was being deactivated. Nine operators were affected, one of them seriously. There was also considerable damage to buildings and equipment. Regrettably, an employee died in a road accident while at work.

We recognise the potential for some substances involved in pharmaceutical manufacturing to be misused, for example in narcotics, toxins or chemical weapons. We keep regulated chemicals in small quantities, under rigorous control, and in compliance with all applicable legislation.

**More on the web:**

- Progress and goals: [www.roche.com/sus-progress\\_goals](http://www.roche.com/sus-progress_goals)
- SHE Policy, Guidelines and organisational structure: [www.roche.com/sus-she](http://www.roche.com/sus-she)
- Position papers: [www.roche.com/sus-she\\_policies\\_positions](http://www.roche.com/sus-she_policies_positions)
- Policy on regulated chemicals: [www.roche.com/sus-chemicals](http://www.roche.com/sus-chemicals)
- Responsible care: [www.roche.com/sus-responsible\\_care](http://www.roche.com/sus-responsible_care)
- Performance data, long-term trends and definitions: [www.roche.com/sus-she\\_performance](http://www.roche.com/sus-she_performance)

# Assurance

## **Independent Assurance Report on the F. Hoffmann-La Roche Ltd Sustainability Reporting 2007**

To the Corporate Sustainability Committee of F. Hoffmann-La Roche Ltd, Basel ('Roche').

We have performed evidence-gathering procedures to provide assurance on the following aspects of the Sustainability Reporting of Roche and its consolidated subsidiaries excluding Chugai Pharmaceutical Co. Ltd. and Genentech, Inc., all for the year ended December 31, 2007 (hereafter jointly referred to as the subject matter):

- The management and reporting processes with respect to the sustainability reporting and to the preparation of SHE key figures and social dimension information ('social data'); and
- The SHE key figures in the tables on the pages 80 to 85 of the Roche Business Report 2007.
- Some selected social data disclosed on the pages 72 to 77 of the Roche Business Report 2007.

We have evaluated the subject matter against the following criteria:

- The Roche Group internal sustainability reporting guidelines with respect to the Responsible Care Health, Safety and Environmental reporting guidelines published by the European Chemical Industry Council CEFIC and the 'Sustainability Reporting Guidelines G3' published on October 2006 by the Global Reporting Initiative (GRI);
- The defined procedures by which the SHE and social data are prepared, collated and aggregated internally.

The accuracy and completeness of sustainability indicators is subject to inherent limitations given their nature and methods for determining, calculating or estimating such data. Our Assurance should therefore, be read in connection with Roche's internal guidelines, definitions and pro-

cedures established to prepare and report on its sustainability performance.

The Roche Corporate Sustainability Committee is responsible for both the subject matter and the evaluation criteria.

Our responsibility is to provide a conclusion on the subject matter based on our evidence-gathering procedures in accordance with the International Standard on Assurance Engagements (ISAE) 3000 'Assurance Engagements other than Audits or Reviews of Historical Information', approved December 2003 by the International Auditing and Assurance Standards Board (IAASB).

We planned and performed our evidence-gathering procedures to obtain a basis for our conclusions in accordance with an ISAE 3000 limited and reasonable assurance engagement. We have not performed an audit according to International Standards on Auditing. Accordingly, we do not express such an audit opinion.

Our evidence-gathering procedures included the following work:

- Assess how Roche's staff apply the internal sustainability reporting guidelines;
- Visiting selected sites in Switzerland, the USA, in Japan, in Thailand, in Germany, in France and Ireland of Roche's Pharmaceuticals and Diagnostics Divisions;
- Interviewing personnel responsible for the internal sustainability reporting and the SHE and social data collection on the sites we visited and on Group level;
- Performing tests on a sample basis of evidence supporting selected SHE and social data (Roche accident rate, energy consumption, CO<sub>2</sub> emissions related to energy consumption, VOC, chemical wastes, distribution: tonnage and incidents, labour and workforce, talent pipeline) with regard to the reported data aggregation from the selected sites to the group level;

- Reading and performing tests of the relevant documentation on a sample basis, including group sustainability policies, management and reporting structures, documentation and systems used to collect, analyze and aggregate reported SHE and social data; and
- Assess the data consolidation process of SHE and social data at the group level.

However, we have not performed site visits at Chugai Pharmaceutical Co. Ltd. and Genentech, Inc.

In our opinion:

- The internal sustainability reporting guidelines are applied properly on the sampling; and
- The internal reporting system to collect and aggregate the SHE and social data is functioning as designed; and

- The reporting system provides an appropriate basis for the disclosure of SHE and social data, in all material respects, based on the evaluation criteria.

Based on our work described in this report, nothing has come to our attention that causes us to believe that the SHE key figures and social data disclosed with the Sustainability Reporting does not give a fair picture of the SHE and social performance, or that the procedures by which the SHE key figures and social data were prepared, collated and aggregated are not based on established and accepted measurement and analytical methods, in all material respects, based on the evaluation criteria.

PricewaterhouseCoopers AG,  
Zurich, 18 January, 2008

Dr Thomas Scheiwiller

Jürg Hutter

### The Global Reporting Initiative sustainability reporting guidelines

This year we have once again aligned our sustainability reporting to the guidelines of the Global Reporting Initiative (GRI).

Roche is of the opinion that the A+ level of the GRI G3 guidelines applies to its Annual Report 2007. This was checked with and confirmed by the GRI.

Details of how we report against each indicator can be found at [www.roche.com/sus\\_gri](http://www.roche.com/sus_gri)



Franz B. Humer



**Overview**

Switzerland	■ ■ ■ ■ ■	Croatia	■
Argentina	■	Czech Republic	■
Australia	■ ■ ■ ■ ■	Denmark	■
Austria	■ ■ ■ ■ ■	Dominican Republic	■
Belgium	■ ■ ■ ■ ■	Dubai	■
Bermuda	■ ■ ■ ■ ■	Ecuador	■
Brazil	■ ■ ■ ■ ■	El Salvador	■
Bulgaria	■	Estonia	■
Canada	■	Finland	■
Chile	■	France	■ ■ ■ ■ ■
China	■ ■ ■ ■ ■	Germany	■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■
Colombia	■	Greece	■ ■ ■ ■ ■ ■ ■ ■ ■ ■ ■
Costa Rica	■	Guatemala	■

# Roche – a Global Market Presence



*Roche – a Global Market Presence*

Research and development

Services, financing

Toll manufacturing by third parties

Honduras	<span style="display: inline-block; width: 15px; height: 10px; background-color: #8B4513; border: 1px solid #000;"></span>
Hungary	<span style="display: inline-block; width: 15px; height: 10px; background-color: #8B4513; border: 1px solid #000;"></span>
India	<span style="display: inline-block; width: 15px; height: 10px; background-color: #8B4513; border: 1px solid #000;"></span>
Indonesia	<span style="display: inline-block; width: 15px; height: 10px; background-color: #8B4513; border: 1px solid #000;"></span>
Ireland	<span style="display: inline-block; width: 15px; height: 10px; background-color: #8B4513; border: 1px solid #000;"></span>
Italy	<span style="display: inline-block; width: 15px; height: 10px; background-color: #8B4513; border: 1px solid #000;"></span>
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Latvia	<span style="display: inline-block; width: 15px; height: 10px; background-color: #8B4513; border: 1px solid #000;"></span>
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**Next Annual General Meeting: 4 March 2008**

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