ANNUAL REPORT 2007

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RaySearch in brief Financial report A brief look at 2007 1 36 Board of Directors' and President's report President's comments 2 40 Income statements Business concept and strategy 4 41 Balance sheets Market 8 43 Summary of equity Partners 14 44 Cash-flow statements Customers 17 45 Notes Products 20 63 Audit report Product development 24 Research 26 64 Board of Directors Employees and organization 28 66 Senior management Shares and ownership 30 67 Auditors and Scientific Advisory Board Corporate governance report 33 68 Glossary Key ratios and financial overview 34

Annual General Meeting

The Annual General Meeting of shareholders in RaySearch Labo- Registration to participate in the Annual General Meeting may to participate.

tralen VPC AB. Shareholders are registered in the share register certificates, etc., should be enclosed with the registration. either in their own name or through a nominee. Only shareholders registered under their own name are entitled to participate in the A printed version of the annual report is sent to all registered sharevia the trust department of a bank or an individual nominee must have their shares registered under their own name through VPC. RaySearch will publish the following financial reports in 2008: Such registration, which may be temporary, is requested from the Interim Report for January–March 2008: May 7, 2008. share nominee. Reregistration must be carried out not later than Interim Report for January-June 2008: August 27, 2008. Friday, May 16, 2008. The nominee should be informed well in Interim Report for January–September 2008: November 2008. advance of this date.

ratories AB (publ) will be held on Thursday, May 22, 2008, at be made in writing to RaySearch Laboratories AB at Sveavägen 6:00 p.m. in Kammarsalen at Berns Conference Center, Berzelii 25, SE-111 34 Stockholm, Sweden, by fax to +46-8-545 061 39, Park, Stockholm. Shareholders wishing to participate in the Meet- by telephone to +46-8-545 061 30, or by e-mail to: bolagsing must be registered in the company's share register on Friday, stamma2008@raysearchlabs.com, not later than 4:00 p.m. on May 16, 2008, and must also notify the company of their intention Friday, May 16, 2008. Registration must include the shareholder's name, civic registration number or corporate registration number, address and telephone number, as well as the registered number The company's share register is maintained by Värdepapperscen- of shares held. Authority documents such as proxies, registration

Meeting. Shareholders who have nominee-registered their shares holders who have not actively declined receipt of the annual report.

This is a translation of the Swedish Annual Report.

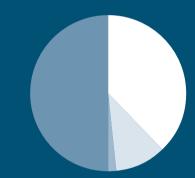


RAYSEARCH IN BRIEF RAYSEARCH IN BRIEF

RaySearch in brief

RaySearch is a medical technology company that develops software for radiation therapy of cancer. Operations are predicated on the desire to improve human health and life. The company's products are used to enhance efficiency of radiation therapy by optimizing the radiation dose for each individual cancer patient. License agreements with leading partners facilitate the marketing and sales of RaySearch's products on the global market. Read more about the business concept and strategies on page 4 and products on page 20.

> Ownership structure in RaySearch in terms of capital distributed by owner categories

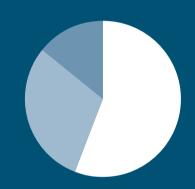


- Foreign owners (37.8%)
- Swedish owners/institutions (10.7%)
- Swedish owners/equity funds (1.5%)
- Swedish owners/private individuals (50.0%)

Who are our owners?

RaySearch, which was spun off from Karolinska Institutet, was founded by Johan Löf, Erik Hedlund, Anders Liander and Karolinska Institutet Holding AB. The venture capital company Affärsstrat-2000. Seven years after its founding, RaySearch has launched eight commercial products and more are on the way. The major shareholders of RaySearch are its founders, Swedish insurer AFA Försäkring, Swedish Pension funds and several international shareholders. The company has been publicly listed since 2003 and at year-end 2007, the number of shareholders amounted to slightly more than 3,600. Non-Swedish ownership amounts to 38% of the share capital. Read more about the ownership structure and the share

Geographic distribution of RaySearch's

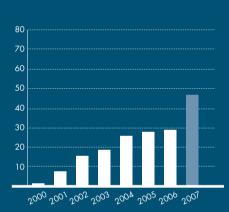


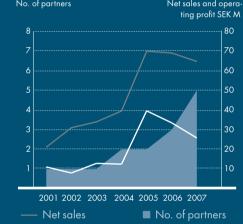
- North America (56%)
- Europe and rest of world (30%) ■ Asia (14%)

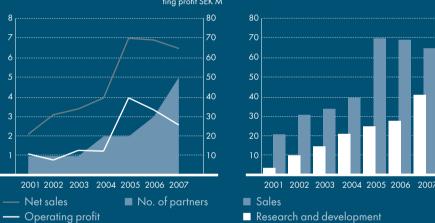
Where are we located?

RaySearch has its office in Stockholm, Sweden, Through its partners, RaySearch's products are Carl Filip Bergendal, Anders Brahme, Bengt Lind, widely disseminated, particularly in hospitals and clinics in North America and Europe. There is also major market potential in other egerna became part owners in RaySearch during parts of the world, and use of RaySearch's products is increasing on these continents. Over 1,200 clinics in more than 30 countries use the company's products.

RaySearch employees 2000–2007







How large are we?

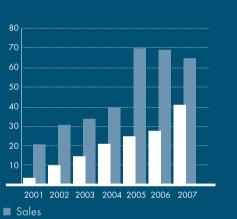
During the year, RaySearch expanded significantly and recruited about 20 new employees, primarily within research and development. With 47 full-time employees and net sales of SEK 64.7 M in 2007, RaySearch has achieved rapid growth since its establishment in 2000. RaySearch's five partners control more than three quarters of the world market, and the company has now reached more than 1,200 advanced cancer clinics that deliver radiation therapy to patients. In treatment planning for IMRT, RaySearch's system is by far the most widely used in the world.

How are we developing? Where are we going?

Since its founding in 2000, RaySearch has signed seven license agreements with five commercial partners. These partnerships encompass more than 20 commercial products, of which eight have been launched to date. As a consequence of RaySearch's business model in which partners are responsible for sales and marketing, increased volumes increases revenues and profits more than costs. This focused business model allows RaySearch to maintain favorable margins. Read more about the business model on page 4.

There is a considerable body of evidence that highlights the clinical value of intensity modulated radiation therapy (IMRT) as a form of therapy, and new forms of treatment, such as adaptive radiation therapy, are poised for a breakthrough, thereby bolstering demand for RaySearch's products. We are currently broadening our operations and have diversified the product portfolio to include areas such as adaptive radiation therapy, quality assurance and radiation therapy using protons. RaySearch's products for optimization of conventional radiation therapy also significantly increase market potential. Read more on our product development on page 24 and research projects on page 26.

Net sales, operating profit and number of partners Strong focus on research and development



A brief look at 2007

Finances

- Net sales declined by 6 percent, compared with the preceding year and amounted to SEK 64.7 M (69.0). The operating margin amounted to 39.8 percent (48.6) during the year. Support revenue increased by 22 percent in 2007 to SEK 19.6 M (16.1). Read more on page 36.
- Operating profit amounted to SEK 25.8 M, compared with SEK 33.5 M in 2006.
- Profit after tax amounted to SEK 19.8 M (36.2). Earnings per share amounted to SEK 1.73, compared with SEK 3.17 in 2006.
- Cash flow from operating activities amounted to SEK 37.9 M (30.1).

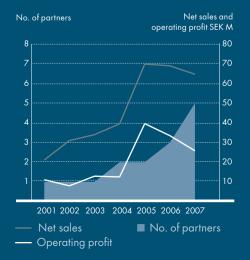
Partnerships

- Two new agreements were signed during the year, and RaySearch now has seven license agreements with five commercial partners.
- A new long-term license agreement was signed with Varian Medical Systems for the development of advanced treatment planning products for radiation therapy. The license agreement includes radiobiological evaluation and optimization of intensity modulated radiation therapy (IMRT) and proton therapy, and also optimization of conventional three-dimensional conformal radiation therapy (3D-CRT).
- A broad treatment planning agreement was signed during the year with TomoTherapy covering three products that expand TomoTherapy's treatment planning functionality.
- RaySearch previously signed agreements with Philips in 2000 and 2006, Nucletron in 2004 and 2006 and IBA Dosimetry in 2006.

Product development

- The first product within quality assurance of IMRT developed in cooperation with IBA Dosimetry was approved by the FDA and was launched on the market.
- RaySearch is currently developing more than 15 products within IMRT, conventional radiation therapy, proton treatment planning, adaptive radiation therapy and quality assurance.

Net sales, operating profit and number of partners



New license agreements create further potential for the future



The year 2007 was strategically a successful year in which RaySearch took major strides forward in several areas, even though 2007 was a moderate year financially.

In May, we signed a licensing agreement with Varian, the largest player in the radiation therapy field. The agreement is an important milestone in our development, since we thereby have agreements with the leading players in the treatment planning area. In August, we signed another agreement with TomoTherapy, which then became our fifth partner. TomoTherapy is a very innovative and fast-growing manufacturer of radiation therapy equipment.

Strong expansion of development capacity

Since existing partnerships are proceeding at an undiminished pace, the new agreements created a great need to expand our development capacity. Accordingly, we carried out major expansion during the year and recruited some 20 new employees, primarily in research and development. The response to this recruitment campaign was tremendous. The number of applications and the qualifications of the new recruits exceeded our very high expectations.

As a result of the campaign we have doubled our development capacity and at the same time strengthened our expertise within several key areas.

Products launched in a new market area

In December, these expanded development efforts began to show results when COMPASS* received FDA clearance and was launched. The sales process is now up and running and the first orders have been received. COMPASS* is a state-of-the-art solution for quality assurance of intensity modulated radiation therapy that was developed in cooperation with IBA Dosimetry. In addition to improving the precision, COMPASS* has the potential to significantly speed up of the quality assurance process, which will enable the clinics to spend more time on treating patients, and simultaneously improve safety. The launch provides a large revenue potential and is also of strategic importance. With a third partner that sells our products in addition to Philips and Nucletron, the stability of the company increases. Moreover, the launch means that RaySearch now broadens its base and enters the dosimetry area, which is an entirely new market area for us.

Lower earnings but a very solid position

The new products and partnerships are not yet contributing positively to earnings. Sales declined during the year by 6 percent to SEK 64.7 M. The most significant reason for the decline is that sales via Nucletron during the fourth quarter did not attain the relatively high levels that were achieved during the corresponding quarter of the preceding year. Sales were also affected adversely by the declining US dollar. At unchanged exchange rates, sales in 2007 would have been unchanged, compared with the preceding year. Net profit for 2007 declined to SEK 19.8 M from SEK 36.2 M in the preceding year. The decline was attributable to lower operating profit and the fact that net profit in 2006 was positively affected by SEK 11.3 M due to the accounting effect of our taxable loss carryforward deduction, while the corresponding effect did not arise in 2007. RaySearch's financial position remains very solid. Cash flow from operating activities increased to SEK 37.9 M (30.1), and cash and cash equivalents amounted to SEK 79.1 M at year-end. The Board of Directors therefore proposes a dividend of SEK 0.50 per share.

Intensive work with new products

Future growth will primarily come from new products and we are now working very hard with product development and have several launches planned in the coming year. The Varian collaboration is moving forward rapidly, and we have already demonstrated our forthcoming products for radiobiological evaluation and optimization. In addition to these products, we are also developing a product for optimization of conventional 3D-CRT treatments which is an exciting new area for RaySearch. Conventional treatments with conformal radiation therapy still accounts for the majority of treatments. Although the treatment technique is less advanced, automating and simplifying treatment planning and optimization is a challenge. The goal is to develop a product that sharply reduces the relatively large amount of manual work that is still required while improving treatment quality. This product has a very large volume potential, since demand should be high even in markets in which more advanced treatments have not yet become standard practice.

The partnership with TomoTherapy is also developing rapidly. Three products have been specified that extend the treatment planning functionality of the TomoTherapy Hi-Art system and facilitate the transfer of treatment plans between the Hi-Art system and conventional linear accelerators.

In the partnership with IBA Dosimetry relating to COMPASS*, we are working intensely with further development of the two prod-

ucts that were just released and with the development of more advanced functionality.

Concurrently with focusing much energy on our new collaboration agreements, we are also working continuously with our partners Philips and Nucletron. We have an extensive collaboration with Philips within adaptive radiation therapy. The advantage of adaptive radiation therapy is that geometric precision is increased by taking changes in the patient's anatomy into account during the treatment. Higher doses can be delivered to the tumor, while reducing the risk of side effects. Market growth for products in adaptive radiation therapy will probably be driven by the same factors as IMRT: proven clinical value and reimbursement by the US insurance system. Because adaptive radiation therapy is a complete treatment process and a broader area than IMRT, the products that support the process itself will have even greater market potential.

We are also continuing in our partnership with Nucletron and we are conducting significant development work in proton and carbon-ion therapy, which is a promising area for the future in radiation therapy. We are participating together with Nucletron in a major tender for a Swedish proton center in Uppsala that will be decided during 2008. There is therefore an excellent chance that this work will quickly enter a commercial phase.

Outlook

During the year, we expanded from three to five partners and increased the number of employees in research and development by three quarters. We now have eight different products on the market, have entered a completely new market area and are developing more than fifteen new contracted products that will be launched over the coming years. In parallel, we also continue to seek out new collaboration opportunities and are involved in several discussions related to expanding existing agreements or entering new partnerships. With such favorable conditions for solid growth in the years ahead, I am highly optimistic about the future.

Stockholm, March 2008

Johan Löf President RaySearch Laboratories AB

Global reach with limited costs

One of RaySearch's strengths is the scalability of its business model. Through licensing and collaborations with leading commercial partners, sales to hospitals and clinics can increase without a proportionate cost increase. The business model thus offers leverage combined with low financial risk.

RaySearch's business concept is to provide innovative software that creates more effective radiation therapy for cancer. The premise for its business is the ambition to improve people's health and lives. Our aim is to shorten the time required for the deployment of new scientific achievements in radiation therapy in clinical applications. The overall goal is to make RaySearch the leading supplier of advanced software in radiation therapy.

Sales through commercial partners provides strength

To be able to offer innovative methods and advanced software to clinics around the world, RaySearch's business model is based on partnerships with leading medical technology companies and scientific institutions. Working together with leading commercial partners means that innovations and new software developed by

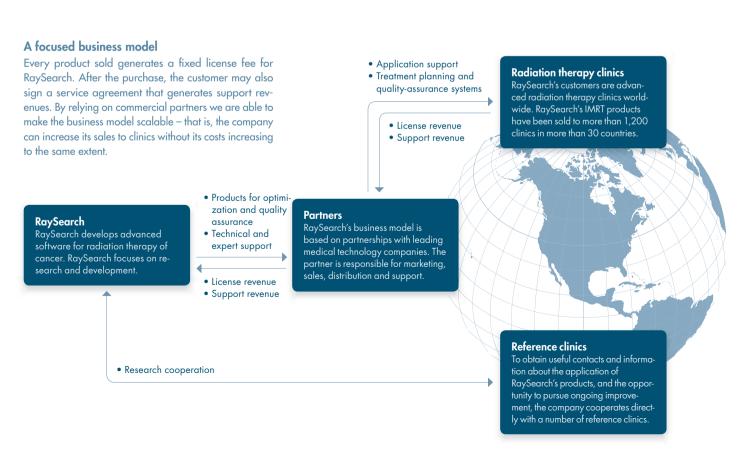
RaySearch can be made available to the international market more rapidly.

Since the commercial partner is responsible for sales and service to the end customer, RaySearch does not need a global sales organization, but can instead retain its focus on advanced new research and development.

Strategy focused on research and development

To be able to supply clinics around the world with constantly improved technical solutions for more effective treatment of cancer, RaySearch must focus its resources on research and development. Within RaySearch, 40 of the company's 47 employees work with research and development.

To continue its rapid growth, RaySearch works consistently with



three strategic directions. We maximize sales and reach through partners, we expand the product portfolio through continuous product development, and we expand into new market segments.

An important component in this strategy is that all products and solutions that we develop are highly flexible and modular. This means that they can be easily and efficiently enhanced and integrated into other companies' systems. All development within the company is structured and leveraged within the ORBIT product platform, which is the starting point for all commercial partner-

ships. With this basic functionality as a starting point, contracts are signed for those portions of ORBIT that the partner wishes to use as a basis for new initiatives or improvement of existing products. Based on each partner's needs and requirements, new functionality is then developed. The ORBIT platform's basic functionality thus grows as new partnerships are established.



MAXIMIZE SALES
AND REACH THROUGH
PARTNERS

RAYSEARCH'S COMMERCIAL PARTNERS ARE LEADING, medical technology companies. Through these partnerships, the company's products become available to clinics around the world more rapidly. The commercial partner is responsible for sales and support, meaning that RaySearch can retain its focus on advanced research and development.

RaySearch's goal is to sign license agreements with all leading medical technology companies, which in turn are successful in their sales. By providing innovative high-quality solutions for radiation therapy for cancer, RaySearch aspires that its products will be the first choice of the world's radiation therapy clinics. RaySearch's products should significantly improve the quality of radiation therapy of cancer and contribute to driving development.

BROADEN THE
PRODUCT PORTFOLIO
THROUGH CONSTANT
DEVELOPMENT

EVER SINCE RAYSEARCH WAS FOUNDED, one of the most important goals has been to broaden the product portfolio. The company is constantly enhancing and launching products and strives to cover all forms of advanced applications for treatment planning. During the first five years of operation, RaySearch focused product development on IMRT but has now expanded into other areas of treatment planning such as proton beam therapy, adaptive radiation therapy and conventional radiation therapy (3D-CRT).

It is possible to maintain a fast pace in product development by continuous re-use of program code from the ORBIT software platform in developing new products. Product development takes place in parallel with enhancement of the ORBIT platform, which is the foundation for the applications. Reference clinics that provide feedback and share experience from existing products support the continuous improvement process.

EXPAND TO
NEW MARKET SEGMENTS
THROUGH COMMERCIAL
CONTRACTS

RAYSEARCH USES ITS EXPERTISE and technical platform strategically to develop applications in new areas beyond traditional treatment planning. RaySearch sees significant opportunities for expanding its business to applications in additional areas in the treatment chain with products in adaptive radiation therapy, quality assurance of IMRT and image processing in the area of diagnostics.

A prerequisite for retaining the position at the forefront of radiation therapy is close contact and frequent exchange with leading scientific institutions and clinics.

Strong brands are of great importance in achieving success in medical technology. By positioning RaySearch as the leading supplier of advanced solutions within radiation therapy, opportunities increase to forge partnerships with additional commercial partners.

• RaySearch's five partners control more than three quarters of the world market. RaySearch's system for optimizing IMRT treatments is by far the world's most widely used.

Execution

- During 2007, new agreements were signed with Varian Medical Systems and TomoTherapy.
- RaySearch currently has seven license agreements with five commercial partners and supports its partners in marketing and sales in many ways. RaySearch previously signed agreements with Philips in 2000 and 2006, Nucletron in 2004 and 2006 and IBA Dosimetry in 2006.

A broad installed base and loyal customers are obtained by ensuring that RaySearch's products meet and exceed the clinics' demands with respect to user-friendliness, robustness and clinically relevant functionality.

Execution

- RaySearch is the world leader in IMRT and currently sells six IMRT products, three via Philips and three via Nucletron. In total, these products have been sold to more than 1,200 clinics in over 30 countries.
- The company is currently developing more than 15 products with five commercial partners.
- Since 2005, RaySearch has been conducting a project to develop a prototype system for treatment planning and optimization of radiation therapy with light ions, such as protons and carbon

- ions. A new agreement relating to treatment planning of radiation therapy with protons was signed with Nucletron in 2006.
- A new agreement was signed with Varian Medical Systems during 2007 for the development of optimization of conventional three-dimensional conformal radiation therapy (3D-CRT), as well as radiobiological evaluation and radiobiological optimization of treatment plans for radiation therapy with photons/electrons and intensity modulated radiation therapy (IMRT).
- A new broad treatment planning agreement was signed with TomoTherapy in 2007 that includes three products for automatic generation of IMRT plans and other important treatment planning functionality.
- RaySearch currently has research partnerships with several leading clinics in Europe in the areas of IMRT and biological optimization.

Execution

- RaySearch has conducted research and development in adaptive radiation therapy since 2002 that has resulted in a system for adaptive radiation therapy.
- In 2006, a development and licensing agreement was signed with Philips for joint development and marketing of a product portfolio in adaptive radiation therapy. RaySearch plans to launch the first product from this partnership in 2008.
- In 2006, a long-term development and licensing agreement was signed with IBA Dosimetry involving three products for quality assurance of IMRT, of which two are now released on the market.
- Through partnerships with leading research institutions, RaySearch can test applications in new areas. This research opens new areas for expansion and shortens the time from scientific publication to clinical application. As an example, RaySearch has a long-term research agreement within adaptive radiation therapy with Princess Margaret Hospital in Toronto, Canada.

Development of new treatment techniques drives the market

The number of diagnosed cancer cases is increasing steadily in both the US and Europe. At the same time, increasingly advanced radiation therapy techniques are being developed to combat the disease. The market trend for these methods is driven primarily by two factors: the proven clinical value and insurance systems, which must approve the methods.

More than eleven million persons around the world are diagnosed with cancer each year, and cancer mortality rates are expected to continue to increase.

Cancer is one of the most common causes of death, with 7.6 million fatalities in 2005, representing a full 13 percent of the total 58 million registered deaths worldwide. Some 70 percent of deaths from cancer occur in low and mid-income countries where there is less opportunity for diagnosis and treatment.

Current estimates indicate that cancer causes one in four deaths in industrialized countries. The number of cancer deaths is estimated to increase to 9 million in 2015 and 11.4 million in 2030 and the number of newly diagnosed cases of cancer is estimated to reach 16 million in 2020. However, the number of cancer cases worldwide that are treated and cured has risen substantially in recent decades as a result of growing expertise in the field. Earlier cancer diagnosis and improved treatment techniques have resulted in a higher proportion of patients surviving the disease over the long-term. Meanwhile, more cases of cancer are diagnosed thanks to superior insight and more advanced equipment. Moreover, the actual number of cancer cases is increasing along with the length of life of the population.

The current trend naturally means that more resources are being devoted to the fight against cancer and that demand for better treatment techniques is increasing. Of the three main branches of cancer therapy – surgery, radiation therapy and chemotherapy – radiation therapy has increased most for patient groups undergoing curative care over the past twenty years. Radiation therapy entails exposing the tumor to ionized radiation that damages the cell's DNA. Healthy cells have an ability to repair the DNA damage, an ability that is reduced in cancer cells. A well-dimensioned radiation dose can thus make the cancer cells die or reproduce at a slower rate without permanently damaging healthy cells. The advantages of radiation therapy are its clinical benefits and cost-effectiveness. In the industrialized countries, approximately 50 percent of all cancer patients are treated with radiation therapy.

Sales of radiation therapy equipment totaled about USD 2.1 billion during 2007. This includes both various types of hardware, such as linear accelerators and simulators, and software. With respect to hardware, Varian, Elekta and Siemens are the largest market players. The importance of radiation as a treatment modality is also increas-

ing as new and more exact techniques are developed. RaySearch has a market-driving role in this development.

Treatment planning continues to grow

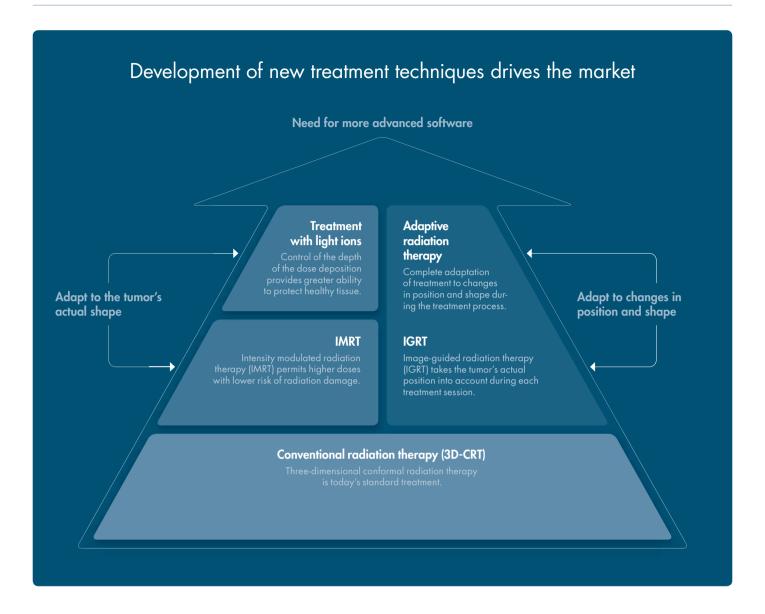
A treatment planning system consists of software that is used to plan exactly how a radiation treatment will be executed. The system can be described as a combination of a CAD tool, a simulator and a database. Planning starts with radiologic images of the patient, primarily generated through computer tomography. Using the radiologic images, the physician defines the extent of the tumor in three dimensions and prescribes the radiation dose with which it will be treated. The software then enables simulation and visualization of all treatment parameters to determine the best possible treatment, which then results in a steering plan for the radiation equipment.

Worldwide, the four companies Philips, Varian, CMS and Nucletron together account for the dominant share of sales of treatment planning systems. RaySearch has partnerships with all but CMS and thus reaches approximately three quarters of the clinics using advanced treatment planning.

RaySearch's products are sold via partners to both the existing installed bases and as a necessary component in new sales of treatment planning systems. Sales of each product have been relatively

Market-driving forces

- Demand for RaySearch's products is affected by the trend in the number of diagnosed cancer patients worldwide.
- How medical insurance systems, particularly in the US, allocate their resources is extremely important for the potential to commercialize RaySearch's products. Approval of a new treatment technique by the insurance system leads to a major impact for that technique.
- Development of new treatment methods increases the demand for the type of advanced software being developed by RaySearch.
- Agreements with the right commercial partners are crucial in RaySearch's pursuit of market success and increased market share.



constant historically, and RaySearch's sales growth is primarily generated through releases of new products. The market for treatment planning systems was about USD 340 M during 2007 and has increased by about 6 percent annually over the past five years.

Growth is primarily driven by the development of new treatment techniques. Three-dimensional conformal radiation therapy (3D-CRT) is today's standard treatment in which the tumor is irradiated from several directions and the beam's shape is matched to the tumor's cross section. 3D-CRT is often very effective but has limitations. Firstly, it is impossible to shape the high dose region to match a complex tumor shape. Physicians are simply forced to compromise when treating tumors with a complex tumor shape. The consideration that must be made is between reducing the dose to protect surrounding healthy tissue or to give a higher dose that improves control of the tumor but risks damaging healthy tissue. Another limitation is that a month-long treatment is based on diagnostic images taken when the treatment began. The tumor changes both position and shape inside the body during treatment, and to be sure that the tumor is treated, a larger volume where the tumor is assumed to be located is irradiated. The risk is that healthy tissue

is damaged unnecessarily or that the tumor is not controlled because the dose must be restricted to avoid side effects.

New treatment techniques are emerging that are intended to avoid these compromises and make it possible to increase the dose to the tumor in various ways without risking damage to the patient's healthy tissue. RaySearch develops advanced software that supports these new techniques, thus creating favorable opportunities for continued growth in the area of treatment planning.

IMRT an important market

Intensity modulated radiation therapy (IMRT) is performed with the same hardware as conventional radiation therapy. Using advanced software, each beam is split up in segments, each with different intensity and shape. When they interact, a beam is generated in which the intensity varies across the cross-section of the beam. In this manner, it is possible to increase the dose to tumors with a complex shape without risking damage to surrounding organs. IMRT was established in the early 2000s, and many studies show that IMRT improves treatment effects.

All of the major suppliers of treatment planning systems offer



software for IMRT. RaySearch's first products are solutions that enable treatment planning of IMRT in Philips' and Nucletron's treatment planning systems. RaySearch's IMRT products are currently installed in over 1,200 clinics in more than 30 countries and are thus the world's most widely used IMRT products.

The majority of the systems are installed in the US, where IMRT has achieved a breakthrough as a result of advantageous reimbursement levels from the insurance companies. Europe, which has a different reimbursement system, is far behind the US. Today, IMRT is generally well-established in Europe as well, but large differences remain between countries with respect to the extent IMRT is being used in clinical practice.

The advanced clinics in the US have already made most of their

basic investments in IMRT, and new sales involve supplementary purchases of capacity. Nonetheless, the majority of systems are still sold to the US, which implies that there is a substantial remaining potential in Europe and other parts of the world.

Planning and optimization of proton and carbon-ion treatments is an emerging market area

Radiation with protons or carbon ions instead of photons, as used in conventional radiation treatment, is a very promising form of therapy that is growing. Radiation with protons or carbon ions means that radiation can be further controlled and made more effective by controlling the energy of the particles. They can be controlled so that they depose their energy with millimeter precision

without injuring posterior tissue. Treatment can thus become even more exact than IMRT treatments.

Particle acceleration requires advanced equipment and considerable space. Treatment planning and optimization are often purchased separately for each project and partially customized to match its prerequisites. Only a few projects are sold around the world each year.

The strongest players in this area are the listed companies IBA and Varian. Other players are Hitachi, which has secured a prestigious order (MD Anderson in Texas) and MHI (Mitsubishi Heavy Industries). Siemens is also developing a complete solution for carbon-ion therapy in a technology partnership with Heidelberg University.

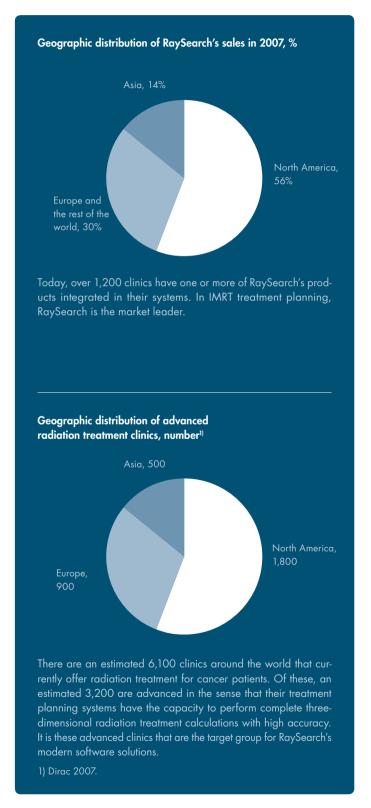
In pure market terms, proton and carbon-ion treatments are significantly different, compared with other existing markets. Total investment for establishing a proton or carbon-ion center is substantial, from about SEK 500 M to more than SEK 1 billion, of which the order value for planning and optimization systems per center can be expected to be between SEK 10 and 40 M. The technical equipment alone currently costs about SEK 350 M. Emerging price pressure on accelerators and additional evidence of clinical value will increase the number of centers and thus the demand for treatment planning systems. At present, an estimated 55,000 patients have been treated with proton therapy.

In 2006, RaySearch signed an agreement with Nucletron for the development of a system for treatment planning and optimization of proton radiation therapy. This work continues, and RaySearch is participating together with Nucletron in a tender for a new proton center in Uppsala.

Apart from commercial reasons, proton and carbon-ion treatment planning is an area at the absolute forefront of development. This is where RaySearch wants to be so that experience can be accumulated and used in other contexts, which also strengthens RaySearch's general position.

Adaptive radiation therapy has significant market potential

IMRT represented a major breakthrough in radiation therapy, and now adaptive radiation therapy is on the verge of a similar breakthrough. One of the main problems in radiation therapy is the geometric uncertainty with respect to both the patient's position in relation to the radiation beam and the changes in position and shape of the tumor and surrounding tissue. The traditional method of dealing with these uncertainties is to define the treatment volume with sufficient margin around the tumor to ensure that it receives an adequate dose despite the movements during the six weeks that a treatment normally lasts. With adaptive radiation therapy, it is possible to deal with the changes in the patient's anatomy that occur



during a treatment in progress and to correct for any errors that may occur during the treatment process.

Many linear accelerators are already being sold with integrated imaging systems that provide images of the patient in conjunction with treatment, which is a prerequisite for being able to track geometrical changes. At present, these systems are only used for adjustment of the treatment couch to adapt for changes in the tumor's position (image-guided radiation therapy or IGRT). With more advanced software, it is possible to take the next step and use this information to adapt the entire treatment based on treatment results and changes in both position and shape of the tumor and surrounding organs.

Market growth for products in adaptive radiation therapy will most likely be driven by the same factors as growth within IMRT, in which documented clinical value and how the US insurance system allocates its resources are of great importance. Adaptive radiation therapy involves a complete treatment process and is in this respect a broader area in market terms than IMRT, meaning that products that support the process have greater market potential. It is important to note that adaptive techniques are a complement to IMRT and therefore will not have a negative impact on revenue potential within IMRT.

RaySearch has a long-term development and licensing agreement with Philips since 2006 for a suite of three products in adaptive radiation therapy. The agreement is important for RaySearch and means that the company can drive the market with the help of new technology as it did with IMRT. The partnership with IBA Dosimetry in quality assurance of radiation therapy also includes adaptive functionality.

RaySearch has a technical platform that is suitable to further development and expertise that is engaged in focused work to develop products that will enable adaptive therapy. RaySearch works with these future products with increased proximity and insight into how the technology will be used. RaySearch will thus be able to simplify the practical changes that a clinic must implement in its daily routines to take advantage of the potential in adaptive radiation therapy.

Expansion in to the quality assurance market area

Quality assurance of radiation therapy is an adjoining area to treatment planning and a market area into which RaySearch is expanding. Quality assurance involves measuring and minimizing the deviations between the treatment plan and the dose that is actually delivered to the patient. In this manner, assurance is obtained that the deviations are within the specified tolerance levels. Because IMRT is a more complex treatment method than conventional radiation therapy and higher doses are administered, quality assurance

is more extensive. At present, this is a very expensive and time-consuming task that can become significantly more efficient. More than 2,000 clinics currently perform IMRT, and the potential for systems that can make this process more efficient is very substantial.

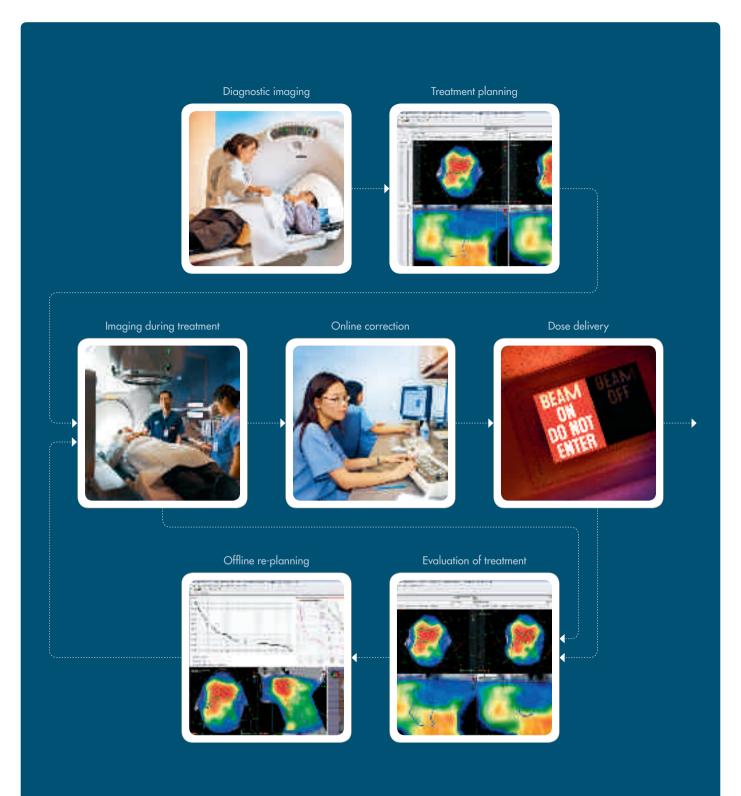
RaySearch can benefit greatly from its expertise in this area. The leading supplier of advanced dosimetry and quality assurance for clinical and industrial radiation systems is IBA Dosimetry. RaySearch signed a licensing agreement with IBA Dosimetry in February 2006 regarding joint development of a revolutionary new system for quality assurance of intensity modulated radiation therapy called COMPASS*.

COMPASS* received FDA clearance and was launched in December. The initial launch includes two of the four software products in the agreement with IBA Dosimetry. COMPASS* allows measurement and three-dimensional reconstruction of the radiation dose that was actually administered to the patient on each day of a treatment cycle. This is very valuable, particularly for advanced IMRT/ IGRT treatments. In addition to improving accuracy, COMPASS* has the potential to significantly shorten the time required for the quality assurance process, which gives clinics more time for treating patients, while improving safety.

Competitors

RaySearch's competitors are primarily the internal development departments of its potential commercial partners. These large medical technology companies always have the option of developing software within their own organizations or outsourcing development work. These companies often choose to focus their development in the areas in which they have the greatest expertise and to find a partner for development that is outside the company's primary focus. The more advanced solutions that RaySearch is able to offer to develop, the greater the probability that these companies will elect to give the assignment to RaySearch.

An evident trend is that commercial partners are increasingly open to development partnerships. The reasons are that the pace of development is increasingly rapid, new treatment areas such as carbon-ion therapy are opening up and the forms for how commercial partnerships in the area of radiation therapy can be formulated have matured. There are thus grounds for concluding that competition from the internal development departments has become less intense for RaySearch.



The adaptive radiation therapy process

IMRT represented a major advance in radiation therapy, and now adaptive radiation therapy is on the verge of a similar break-

through. Adaptive radiation therapy comprises the entire treatment process and is thus a broader area in market terms that IMRT, and products that support the process have greater market potential.



Strong position with new partners

RaySearch's commercial partners are companies that develop and sell treatment planning systems to hospitals and clinics that treat cancer with radiation therapy. RaySearch's solutions are integrated into each partner's systems, which they then sell and distribute to hospitals and clinics around the world.

With the signing of agreements with Varian Medical Systems and TomoTherapy, RaySearch strengthened its position and market presence during the year. This not only means increased pressure in the development of new products, and in turn in sales, but also represents new breadth and balance in the company's business. RaySearch now has partnerships with the leading players in treatment planning, which gives RaySearch the strength to further expand and enhance its core technology and to be able to offer even more functionality to new and existing partners in the future.

Philips - world leader with a broad portfolio

Philips Medical Systems is one of the world's leading suppliers of medical diagnostic equipment. Its product portfolio includes equipment for several different medical application areas. Philips has expanded its business with advanced treatment planning systems – Philips Radiation Oncology Systems – which currently collaborates with RaySearch within radiation therapy.

Philips was RaySearch's first commercial partner. The first agreement entered by the parties in 2000 related to the product p-RayOptimizer, which was released in 2001, with the supplementary products p-RayBiology and p-RayMachine released in 2004. Exclusivity for these products expired in 2004, but the joint development work has since been intensified for the development of functionality over a

broader application area. The products are integrated into Philips' Pinnacle treatment planning system.

In October 2006, a new, long-term licensing and development agreement was signed within adaptive radiation therapy for a suite of new products. Adaptive radiation therapy increases geometric precision by taking into consideration changes in the patient's anatomy during the treatment, which makes it possible to



administer higher doses to the tumor while at the same time reducing the risks of side effects. The first product is a tool for IGRT that utilizes purely geometric information about the patient's anatomy. The second product will support more advanced adaptations of the treatment by also taking dosimetric aspects into consideration. The third product will be able to handle complete four-dimensional adaptive radiation therapy. Launch of the first product is planned for the second half of 2008.

Nucletron - strong offering in radiation therapy

Nucletron has its head office in Amsterdam and offices in 20 other countries around the world. The company is specialized in develop-

ment, manufacturing, sales, service and support of products for cancer treatment. Its core competence is in the areas of brachytherapy, treatment planning, information processing and simulation.

RaySearch signed a license agreement with Nucletron in IMRT in January 2004. The agreement comprises six products for integration into Nucletron's Oncentra™ MasterPlan for treatment planning. In 2005, the first product, n-Ray-Optimizer, was released, and



in 2006, n-RayMachine/DSS and n-RayMachine/Angle were released. In addition to these products, RaySearch is developing n-RayBiology/Eval, n-RayBiology/Opt and n-RayBiology/Fraction, which are three products for biological evaluation and optimization of IMRT.

In November 2006, a new, long-term development and licensing agreement was signed relating to proton radiation treatment of cancer. Proton radiation therapy has potentially even better characteristics than intensity modulated radiation therapy (IMRT) with photon irradiation. In the future, this will be an important treatment technique, and the need for advanced software is increasingly strong . The new system being built by RaySearch will be included in Nucletron's Oncentra[™] MasterPlan treatment planning system.

IBA Dosimetry - leader in dosimetry

German-Belgian IBA Dosimetry is a leading market player within advanced dosimetry and quality assurance solutions for clinical

Released products:

• i-RayDose

• i-RayMonitor

Coming products:

• i-RayCorrector

• i-RayTracker

and industrial applications of radiation physics. IBA Dosimetry is a subsidiary of the Belgian IBA group and was previously named Scanditronix-Wellhöfer. IBA (Ion Beam Applications) supplies effective and reliable solutions within cancer diagnostics and cancer treatment.

In February 2006, a longterm development and license agreement was signed with

IBA Dosimetry relating to three products within quality assurance of IMRT. In addition to these three products, a fourth product, i-RayTracker, is planned. Quality assurance of IMRT is a laborintensive process involving much manual work. Within the framework of this partnership, RaySearch is developing advanced software for automated quality assurance products, which will enable a significantly more efficient quality assurance process. The agreement constitutes an important expansion of RaySearch's area of business, and the first products from the partnership, i-RayDose and i-RayMonitor, which are sold under the COMPASS® brand, were released in December 2007.

Varian Medical Systems – market leader in cancer treatment

Varian Medical Systems, with its base in Palo Alto, California, is the world-leading manufacturer of medical equipment and software for radiation treatment of cancer.

In May 2007, a long-term strategic license agreement was signed with Varian within which RaySearch will develop advanced software for treatment planning of radiation treatments for integration into Varian's Eclipse treatment planning system. The agreement includes development



of a number of components, such as radiobiological evaluation and radiobiological optimization of treatment plans for radiation therapy with photons/electrons, intensity modulated radiation therapy (IMRT) and proton therapy, as well as optimization of conventional three-dimensional conformal radiation therapy (3D-CRT).

The first product is expected to be available to clinics in 2008.

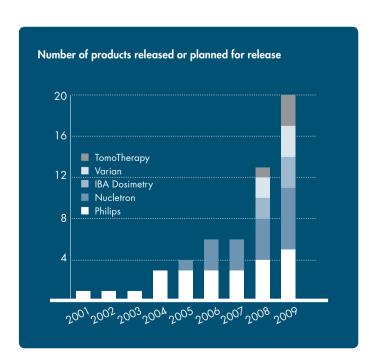
TomoTherapy – innovative fast-grower

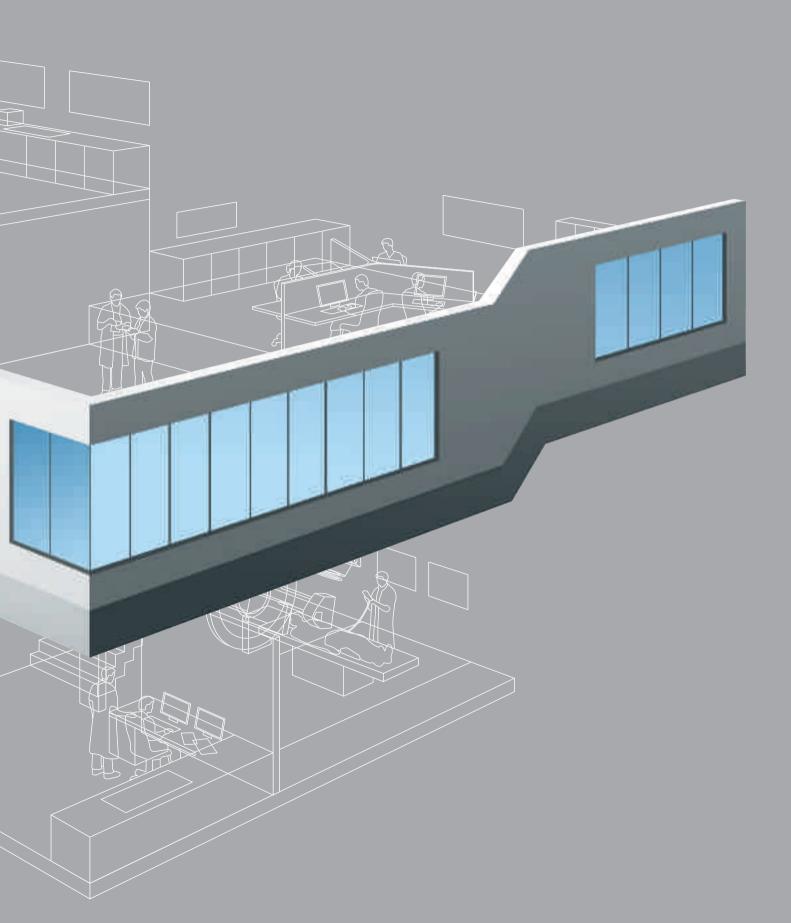
TomoTherapy is based in Madison, Wisconson and is a fast-growing supplier of equipment for radiation therapy. The company has developed, manufactures and sells an advanced radiation therapy system that is marketed under the Hi-Art brand for treatment of a large number of cancer forms.

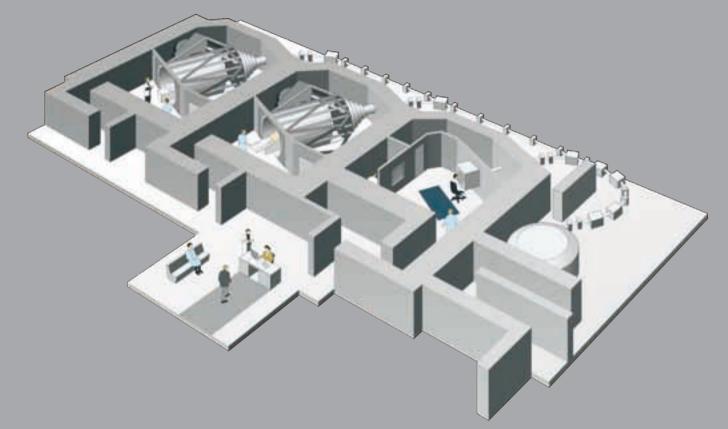


RaySearch signed a license agreement with TomoTherapy in August 2007. The agreement comprises development of a suite of products that facilitate the transfer of treatment plans between a TomoTherapy Hi-Art system and a conventional linear accelerator. The ability to transfer treatment plans between

TomoTherapy Hi-Art treatment systems and conventional linear accelerators results in a better work balance in clinics with different types of accelerators. This means better utilization of the accelerators and greater capacity for treating patients. The intention is that the first product will be released during 2008.

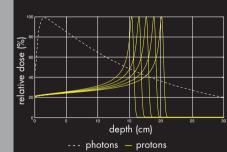






Aiming at a world-leading position within treatment planning for

Recent decades have seen a vast



are also such that they have the greatest

The total investment involved in setting up

Our challenge is to support radiation therapy clinics so that they can deliver better treatment, to more patients, and with even greater precision.



1 Diagnostics



The treatment method for a patient with cancer is determined based on a thorough analysis to establish the nature, origin and spread of the tumor. The analysis may involve checking tissue samples, clinical examination, endoscopy or the use of various imaging methods, such as computer tomography, also known by its initials, CT. A CT examina tion takes a few minutes and is performed with the patient in the treatment position. Normally a few dots are tattooed onto the patient's skin to help the medical state to place the patient in the same position in each subsequent treatment.

2 Prescription



Radiation therapy is one of the most common methods used to treat cancer. The treatment is often combined with other treatment methods, such as surgery and chemotherapy. A radiation therapy prescription contains information from the physician about which areas should be treated, what total dose is needed to treat the tumor, how many fractions (treatment sessions) this dose should be divided into and which healthy organs it is particularly important to avoid.

3 Treatment planning and optimization

The patient is imaged in treatment position by means of CT slices through the relevant part of the body. The physician outlines the tumor areas and organs at risk in the imaged volume of the patient using special software tools. Nurses and adiation physicists then use the physician's prescription to create a treatment plan that meets the physician's requirements. A treatment planning system is used for this purpose.

The treatment planning system can be described in simple terms as a simulator. Radiation sessions are simulated, then transferred to the treatment machine that

Products for advanced optimization of IMRT plans give the user considerable freedom in defining different objectives and constraints for the treatment and assist in achieving the desired dose distribution in the patient. These products make it easy to create an optimal treatment plan for each individual

Released products:

- p-RayOptimizer, p-RayMachine, n-RayOptimizer, n-RayMachine/DSS,
- n-RayMachine/Angle
- Coming products:
- t-RayAutoplan, t-RayPlan



will treat the patient. Conventional treatments are usually planned manually by iteratively changing such parameters as beam shapes and beam weights before calculating the resulting dose to the tumor and organs at risk. The preparation of complex plans, such as IMRT plans. requires optimization using advanced software. The user specifies the desired dose to the tumor and risk organs, and the system prepares a plan that fulfills these

Advanced optimization of IMRT

Advanced optimization of IMRT (intensitymodulated radiation therapy) focuses the radiation on the tumor to a greater extent than is possible with conventional threedimensional conformal radiation therapy (3D-CRT), thereby protecting healthy tissues and enabling a higher dose delivered to the tumor

Radiobiological evaluation and

zation, models are employed to predict how tumors and healthy tissue will react when irradiated. This makes it possible. for example, to evaluate the probability that a tumor can be controlled or that healthy tissue is damaged, given a certain dose. The models can also be used for biological optimization that allows physicians to formulate prescriptions directly in clinical terms, such as the desired probability of controlling the tumor or the risk for radiation-induced

Released products: p-RayBiology

v-RayBiology/Eval, v-RayBiology/Opt,

n-RayBiology/Eval, n-RayBiology/Opt, n-RayBiology/Fraction

Segmentation and graphical tools

4 Simulation

To enable treatment planning, a threedimensional model must be created of the tumor and the organs at risk. This is performed with the support of a computer by reviewing the CT scans and outlining the contours of the relevant structures slice by slice. The software then combines the slices into a three-dimensional shape. There are a variety of graphical software tools that simplify the process and thus reduce the amount of manual work. These tools also significantly improve quality.

Coming products: t-RayAnatomy



In radiobiological evaluation and optimi-**Optimization of conventional**

treatment plans The process for preparing a plan for conventional three-dimensional conformal radiation therapy (3D-CRT) is relatively time-consuming. Medical personnel must iteratively vary treatment parameters manually until a sufficiently satisfactory result is attained. With advanced algorithms, the entire process can be automated. The software then varies all possible parameters and determines the best possible solution. This saves considerable time and also has the potential to significantly improve treatment quality

Coming products:



3 Treatment planning and optimization

Prior to every IMRT session, a medical physicist performs a quality assurance process to check that the calculated dos corresponds to the real dose that will be delivered by the treatment machine. If the values agree, the plan is approved and the patient can be treated. If they do not agree, a new treatment plan must be produced.

The therapy is divided into fractions. Prior to each fraction (normally one per

day, five days per week) the patient is placed or the treatment couch The patient's position must be identice during each

> session and this checked

treatmen

and other aids. Portal images are used for this purpose in certain cases.

During the actual irradiation, which takes from ten to twenty minutes, the patient is alone in the room but has voice contact with the medical staff who can see the patient via a monitor.

Adaptive radiation therapy is an emerging treatment method in which repeated measurements of patient geometry are made during the course of the work that includes assembling and disassembling the equipment and analyzing the results. This cumbersome procedure is normally performed just once prior to the

Quality assurance In traditional quality assurance of IMRT, the treatment plan is transferred to a

applied.

simplified model of a patient – a phantom - containing measurement instruments. The phantom is irradiated, and the dose is registered at certain points within the phantom and compared with the corresponding dose in the treatment plan. The process involves considerable manual

treatment. Information on changes in the

tumor's position and shape can then be

used to adapt the treatment so that a

more patient-specific therapy can be

RaySearch is developing products that do not use a phantom, but instead employ detectors mounted on the radiation equipment. This allows three-dimensional measurement and visualization of the radiation dose that will actually be delivered to the patient on each day during the treatment cycle. In addition to improving accuracy and supporting real-time control, these products have the potential to significantly shorten the quality assurance

process, thus giving the clinic more time for treating patients, while increasing

Released products: i-RayDose, i-RayMonitor

Coming products:

i-RayCorrector, i-RayTracker

Adaptive radiation therapy

Today, radiation therapy is based on the patient's anatomy as it appeared when the CT images were taken and on which the treatment area is defined with sufficient marain surrounding the tumor. In reality, however, both the patient's exterior contours and the position of internal organs change from day to day during treatment. There are already linear accel erators with integrated computer tomography that enable daily imaging of the patient's anatomy. These systems are used for what is called image-guided radiation therapy (IGRT), which is a simpler form of adaptive radiation ther apy in which the treatment couch is moved so that the tumor is positioned correctly in relation to the beam. The next step is fully adaptive radiation therapy in which the treatment planning system can quantify geometrical changes during treatment with respect to both position and shape and continuously adapt the beam to the new information or correct previous errors.

p-RayAdaptive/IGRT, p-RayAdaptive/ Dose and p-RayAdaptive/ART





When treatment planning and optimization are complete, the treatment plan is checked before being transferred to the treatment device. The check can be carried out using a simulator or, in certain cases, directly in the CT room using the CT machine.

6 Follow-up, documentation and analysis

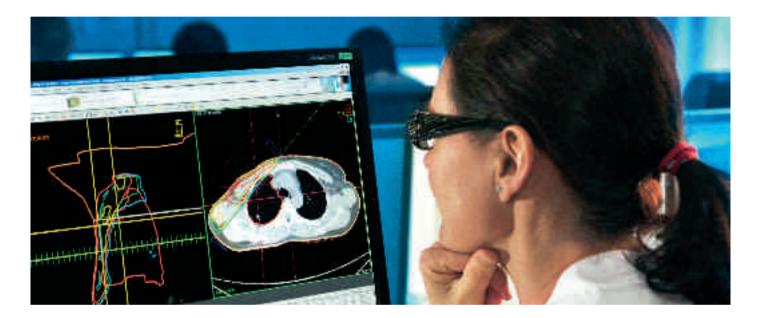


After treatment has been completed, it is important to follow up the patient's treatment results in a structured manner. Radia tion reactions can occur long after the

completion of the treatment and may require medical attention. Long-term treatment results over periods of five or ten years are of interest, since it takes a long time to rule out metastasis and give the patient a clean bill of health. Planning and implementation of radiation therapy are meticulously documented so that the clinic can evaluate and thereby improve its own treatment techniques. as well as enable experience to be exchanged with other clinics and partners

Working together to improve the results of radiation therapy

Users of RaySearch's products are found in clinics that perform radiation therapy. They are physicians, nurses and medical physicists who all strive to offer their patients the best possible treatment. RaySearch's mission is to help clinical staff over both the short and long term to improve the results and efficiency of radiation therapy.



RaySearch's solutions are found in more than 1,200 clinics in over 30 countries, which all offer their patients advanced radiation therapy. The clinics' physicians, physicists and nurses want to optimize radiation treatment, improve the efficiency of the therapy flow and limit side-effects. With the help of new, efficiency-enhancing solutions, clinical staff want to treat more patients, while being able to devote more time to each patient.

Patients have a large number of alternatives with respect to forms of treatment and often make a conscious choice. For the clinics, it is a competitive advantage to be able to offer the latest technology for radiation therapy. Examples of the benefits of technical improvements are many. One of the most important is increased precision, which leads to better chances for tumor control while reducing side effects. The patient's confidence depends on providing the latest and most effective treatment method available, which also drives the clinic's development.

In the clinics, several different personnel groups influence decisions regarding the treatment tools to be purchased. Physicians are often the primary decision makers with respect to what treatment is provided and the equipment and techniques the hospital uses. It is the physician who presents the treatment alternatives and treatment plans for the

patient and is ultimately responsible for the treatment. The hospital physicists play a very important role in the treatment chain by developing the treatment plan and by ensuring, as a link of the quality assurance process, that the doses are delivered in the manner prescribed by the plan. The hospital physicist therefore often has great influence when a hospital chooses treatment planning and quality assurance systems.

Oncology nurses deliver the radiation treatment and also develop treatment plans when they have become routine. Their role is to take care of patients and ensure that the treatment progresses rapidly and effectively according to plan. For these nurses, system reliability and efficiency are extremely important.

The clinics' technical support departments are another important target group, since their specifications place indirect requirements on RaySearch's products.

Apart from the operative personnel groups, hospital management, which is responsible for finances, participates in decisions. This group evaluates the financial and practical implications of investments in new technology. RaySearch's products increase the efficiency of radiation therapy and the entire treatment process, which strengthens the company's commercial partners in their sales of equipment to the clinics.



North America

Development of radiation therapy is led by North America, since the US and Canada are very advanced in implementation of IMRT. These are some examples of radiation therapy centers that use RaySearch products:

▶ Princess Margaret Hospital, Toronto, Canada · Johns Hopkins Hospital, Baltimore, US · Mayo Clinic of Jacksonville, US · M.D. Anderson Cancer Center, Houston, US · Swedish American Hospital, Rockford, US · The Queen's Medical Center, Honolulu, US · William Beaumont Hospital, Royal Oak, US · Mt. Zion, San Francisco, US · University of Chicago Hospital, US · University of Wisconsin, Madison, US



Europe and the rest of the world

In Europe, the rate of development in radiation therapy centers varies greatly between clinics. A number of clinics have been providing IMRT treatments for some time, while others still need to improve their work methods before this treatment method can be taken into use. Examples of leading radiation therapy centers using RaySearch's products include:

► Netherlands Cancer Institute NKI/AVL Hospital, Amsterdam, Netherlands · Amtssygehuset Herlev, Copenhagen, Denmark · Centre Antoine Lacassagne, Nice, France · St. Luke's Hospital, Dublin, Ireland · Ospedale Civile · San Giovanni, Venice, Italy · Centre Francois Baclesse, Luxembourg · University Medical Center Nijmegen, Netherlands





· Det Norske Radiumhospital, Oslo, Norway · Eresa Hospital, Madrid, Spain · Christie Hospital, Manchester, UK · Clatterbridge Centre for Oncology, Liverpool, UK · Royal Marsden NHS Trust, London, UK · Akademiska Sjukhuset, Uppsala, Sweden · Klinikum rechts der Isar, Munich, Germany · Universitätsklinikum Berlin Charité, Germany

Asia

Radiation therapy in Asia and the Middle East is growing fast on the hardware side, which will certainly result in rising demand for advanced software solutions over the coming years. Examples of leading radiation therapy centers using RaySearch's products include:

► Matsushita Memorial Hospital, Japan · Shanghai Hospital, China · Yonsei Cancer Center, South Korea · Intermedic, Beirut, Lebanon · Mount Elisabeth Hospital, Singapore · Kangdong Sacred Heart Hospital, Seoul, South Korea



Most IMRT treatments are planned with our products

RaySearch develops software products that improve the treatment planning systems currently used for radiation therapy. These software products are integrated into our partners' systems for treatment planning or quality assurance. During 2007, an additional two products were launched together with IBA Dosimetry.

Since RaySearch was founded in 2000, a total of eight products have been released in partnership with Philips, Nucletron and IBA Dosimetry. In addition to the released products, RaySearch has signed license agreements for more than 15 additional products under development with Philips, Nucletron, IBA Dosimetry, Varian Medical Systems and TomoTherapy. Read more about the planned development of our partnerships and planned product releases on page 15.

A treatment planning system can be described as a combination of a CAD tool, a simulator and a database. Planning starts with radiological images of the patient, usually from computer tomography. Using these images, the physician defines the extent of the tumor in three dimensions and prescribes the radiation dose with which it will be treated.

RayOptimizer

RayOptimizer is a product for advanced optimization of IMRT, which allows the user to specify the desired dose distribution to be delivered to the patient. The user has great freedom in defining various objectives and constraints for the treatment and can thus optimize the treatment plan for each individual patient. An advantage of RaySearch's optimization engine is that it handles all combinations of linear and non-linear constraints. Another is that it uses advanced mathematical methods to converge fast and find a solution. More than 1,200 clinics around the world and over 100,000 patients have received better radiation therapy as a result of this system. Many of the end customers are outstanding radiation clinics, such as Princess Margaret Hospital in Canada and M.D. Anderson Cancer Center in the US. RayOptimizer is sold via two partners: Philips (p-RayOptimizer) and Nucletron (n-RayOptimizer).

RayMachine

A critical factor in modern radiation therapy is the trade-off that clinics must make between providing as exact treatment as possible and the time it takes for the accelerator to deliver the treatment. It is also important, particularly for clinics with personnel shortages, to minimize the planning time for each patient.

RayMachine is a product that makes it possible for clinics to significantly reduce the radiation time for each treatment session while maintaining or improving the quality of the treatment plan. RayMachine increases the user's ability to define the constraints

that will determine the final treatment time and quality as early as during the initial treatment planning phase. The process also consists of fewer steps, compared with conventional IMRT planning. This fact and the fact that a clinically acceptable treatment plan is obtained that does not need to be re-planned or adjusted later on makes the planning process more user friendly and efficient.

RayMachine is sold via two partners, Philips (p-RayMachine) and Nucletron (n-RayMachine) that are also able to handle hard constraints and incorporate other minor functions that facilitate the optimization process (n-RayMachine/DSS). n-RayMachine can also handle gantry angle optimization (n-RayMachine/Angle) and in the future also optimization of collimator angles.

RayBiology

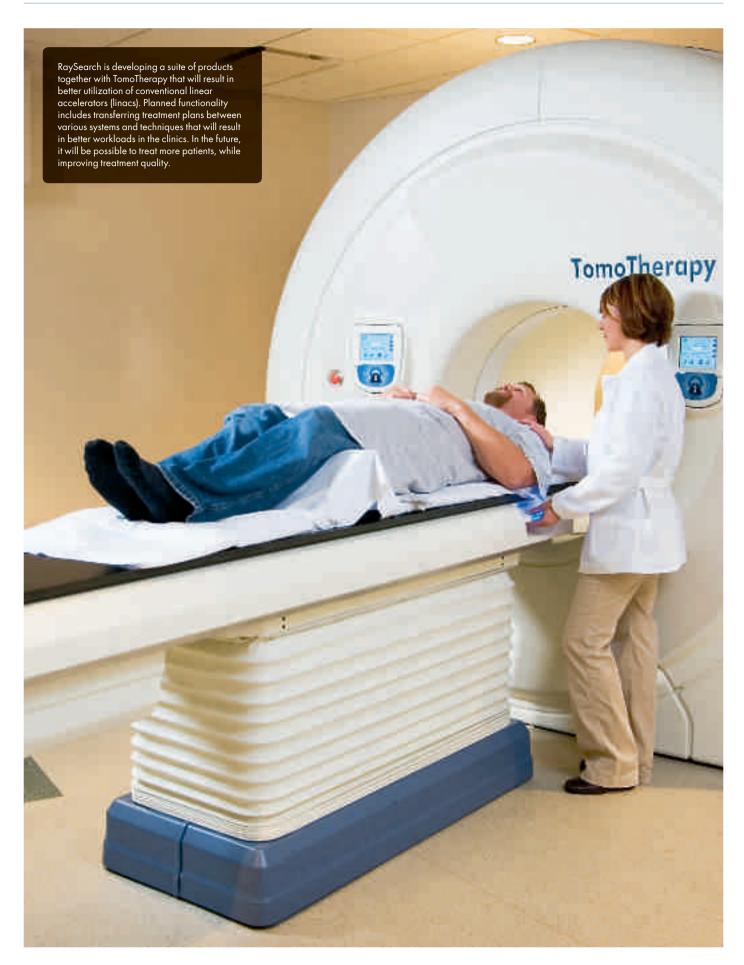
In conventional IMRT, it is the physician who on the basis of clinical experience defines the dose with which the tumor will be treated and the highest permissible dose to which healthy tissue may be exposed. RayBiology supports radiobiological evaluation using radiobiological models for how tumors and healthy tissues react to radiation.

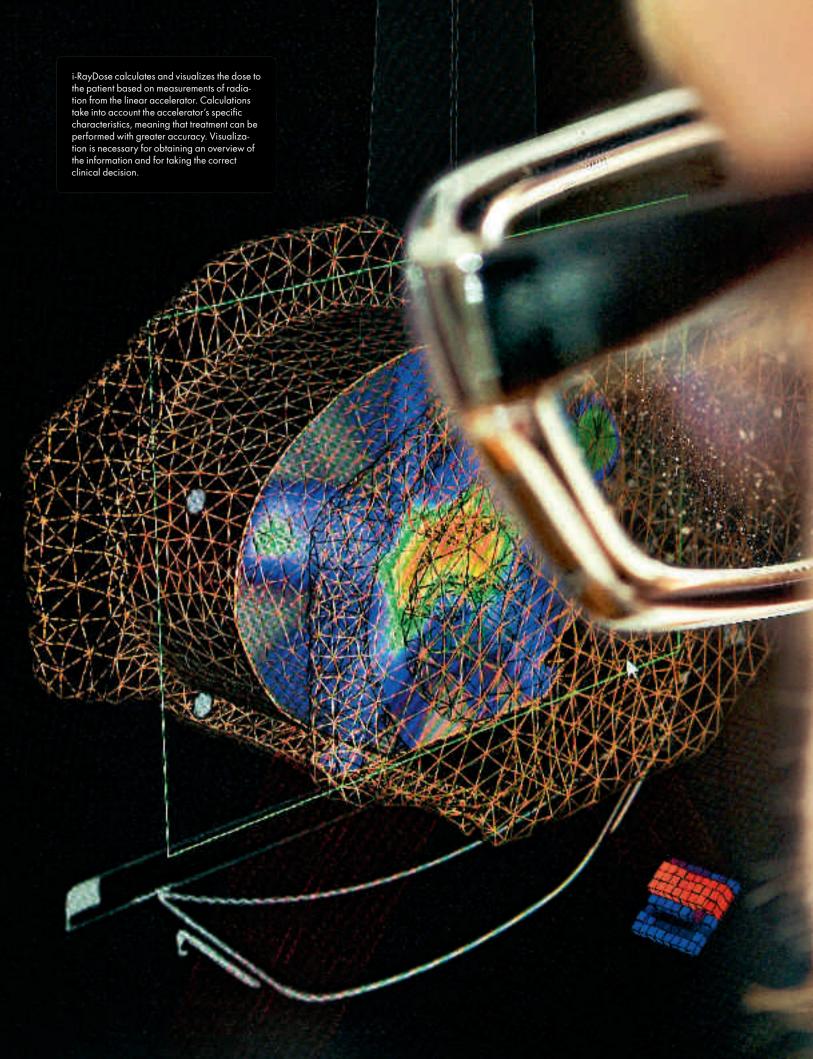
After refinement, the product will also include biological optimization, which will allow the physician to formulate the prescription directly in clinical terms (desired probability for tumor control and maximum permissible probability for radiation-induced complications) instead of dosage to different volumes. The physician balances maximizing the probability of completely eliminating the tumor against minimizing the risk for complications caused by the radiation to find the optimum balance between the dose to the tumor and the surrounding healthy tissue.

RayBiology is currently sold through one partner, Philips (p-Ray-Biology), but license agreements have been signed with such other partners as Varian Medical Systems and Nucletron.

RayDose and RayMonitor

The two most important components in a treatment planning system are optimization of the treatment plan and dose calculation. Thus far, RaySearch has been focused on optimizing treatment, but with the development of RayDose, RaySearch also provides products for calculating doses with clinical accuracy. Calculating doses is a complicated process that is based on both the accelerator's characteristics





and the patient's different tissue types. RayDose calculates the clinical dose based not only on the patient's anatomy, but also matches the calculations to each individual accelerator to obtain the greatest possible accuracy. In addition to calculating the dose, RayDose visualizes its distribution in the patient's three-dimensional geometry. Advanced visualization tools are necessary for obtaining an overview of the information and making the correct clinical decision. RayDose is currently sold through one partner, IBA Dosimetry (i-RayDose).

To ensure that treatment is delivered correctly, a large number of control measurements are performed by the clinic. This is a time-consuming and therefore costly task. RayMonitor makes it possible to easily perform control measurements using various detectors from which the results are obtained in real time. When treatments are quality-assured using today's methods, it is difficult to assess how a measured deviation affects treatment quality for the patient in question. RayMonitor puts the results in a more relevant context, which makes it easier to draw conclusions about the treatment based on the patient's specific prerequisites. The expected measurement values for a correct treatment are calculated by RayMonitor. Deviations can be detected in real time and the treatment can be halted before negative consequences arise. RayMonitor thus constitutes a unique monitoring and safety system. At present, RayMonitor is sold through one partner, IBA Dosimetry (i-RayMonitor).

RayProton

Although treatment planning for proton radiation therapy has many similarities to photon treatment planning, there are several important differences worth noting. The interaction of protons with tissue is significantly different from photons, which places additional requirements on dose calculations. Furthermore, the intensity modulation methods are new. Lateral and vertical modulation is obtained either using individually adjusted range modulators and compensation filters or by using a narrow beam with variable energy that is swept over the tumor area. Over the past two years, RaySearch has developed manual and automated software tools that are required for planning these treatments. Together with Nucletron, RaySearch is participating in a major tender for a Swedish proton center in Uppsala that is scheduled to be awarded during 2008.

Increased development tempo

When RaySearch signs a licensing agreement with a partner, development work begins. The goal is to create a commercially successful product in the shortest possible time by applying research results and adapting the existing platform. The development department is currently working with more than 15 products.

Platform creates synergies in development

Based on the ORBIT platform's functionality, the development department's task is to develop a commercial product matching the partners' and the users' high quality requirements. Development is based on research results and proven methods and includes both creation of new products and the improvement and maintenance of existing products.

The development of the ORBIT platform is the development department's core assignment, and all new functionality is developed as far as possible within the ORBIT platform. This enables a well-proven and fully tested code base that can be reused for many products. Having already completed the basic functionality also strengthens RaySearch in negotiations with new partners and in starting new projects.

New partnerships intensify development

In pace with RaySearch establishing new partnerships and expanding existing ones, the focus of product development is also broadened. IMRT, which has been at the core of the development work thus far, is now one of many areas in which development work is intensive.

Enhancement of IMRT, optimization of conventional radiation therapy (3D-CRT), proton treatment planning, adaptive radiation therapy and quality assurance are areas in which development work is most intensive. Most of these efforts are the result of long-term agreements and do not represent any real change in focus. However, agreements have been added that expand work to new areas and projects.

Development within IMRT takes place primarily through constant improvement of basic functionality and development of related technologies that further increase the efficiency of IMRT. Work is conducted within the framework of enhancement of the products that we have launched with Philips and Nucletron.

As a result of the long-term strategic license agreement with Varian Medical Systems, development of advanced software for IMRT that utilizes radiobiological models has been accelerated. These components will be available to clinics as part of Varian's Eclipse™ treatment planning system. This software makes it possible to optimize a treatment plan by using biological models as probabilities related to tumor control and the risk of damaging healthy tissue in

various parts of the body. This differs from the conventional method, which is not matched to the individual patient's pathology and anatomy to the same extent.

Within the IMRT area, RaySearch also has a partnership with TomoTherapy for development of software that automatically generates IMRT plans for conventional linear accelerators. The objective is to facilitate the workflow and use equipment more effectively, thus freeing up capacity to treat more patients.

Optimization of conventional three-dimensional conformal radiation therapy (3D-CRT) is an exciting new area for RaySearch that has been added through the partnership with Varian. Conventional treatment with conformal radiation therapy still accounts for a large majority of treatments. Although treatment techniques are simpler, automating and simplifying treatment planning is a challenge. The goal is to develop a product that significantly reduces the relatively large manual effort still required.

Within adaptive radiation therapy the development department is working with products that will make it possible to monitor the treatment process using imaging systems and see changes in the tumor's shape and position. Based on the obtained image data, the product will enable control to be enhanced and improve the treatment. There is much to be gained, for example, by actively controlling the patient's position during the treatment process. The next development step is not only to be able to monitor the tumor's movements, but also to include other parameters so that the treatment can be monitored in greater detail and also be modified and improved.

Development work is also in progress to create a complete system for proton treatment planning within the framework of the existing partnership between RaySearch and Nucletron in this area.

The first two products for quality assurance for IMRT developed in partnership with IBA Dosimetry received approval from the US authority FDA and were launched globally at the end of 2007 under the COMPASS® brand. The system enables measurement and three-dimensional reconstruction of the radiation dose actually administered to the patient each day during the course of treatment. We are now working to enhance the products that we have developed within quality assurance and are planning to release new functionality.



Focus areas for RaySearch's product development

Enhancement of IMRT. Enhancement of basic technology and development of related technology that further increases the efficiency of IMRT, such as radiobiological optimization that better optimizes treatment based on the patient's prerequisites.

Improvement of conventional radiation therapy. Development of treatment planning functionality for conventional treatments to reduce the relatively great amount of manual work that is still required while improving treatment quality.

Proton treatment planning. Development of basic technology for treatment planning and optimization that takes advantage of the new treatment opportunities offered by these particles

Adaptive radiation therapy. Monitoring during the course of treatment with imag-

ing systems that make it possible to correct and improve the treatment based in part on changes in the tumor's shape and position.

Quality assurance. Products are being developed for improving and increasing efficiency in the process that clinics follow for ensuring the accuracy of radiation therapy.

Effective work methods increase productivity

Product development is RaySearch's most critical business process, and there is an established development process that is carefully monitored by company management. Product development comprises the dominant portion of the company's operations and was significantly expanded during the year. The product development department is now working simultaneously on over 15 products.

Most development projects extend over one to three years with subsequent enhancement of functionality. As in the research department, the product development department has a well-defined role and its own management, although the two departments share much work.

Group dynamics including a mix of specialties in combination with joint platform development and a structured development methodology are the most important factors for successful product development.

Development work is primarily determined by licensing agreements that specify product goals and functionality requirements. Because RaySearch has expanded its partnerships to five partners, we often perform several similar project steps simultaneously for several partners, we have abandoned the strictly project-oriented organization model. We now work in specialized development teams that develop functionality that can be included in several products. This minimizes duplication of work and means that what we develop consists mostly of permanent solutions that can be added to the technical platform.

In addition to project-related development, there is also long-term method and product development that is intended to prepare for future development projects. The objective is to shorten the time from a research discovery and licensing agreement to the launch of a commercially viable and clinically useful product.

Active research results in successful product development

RaySearch has an independent department that pursues its own research as well as programs in close cooperation with various partners. Research results that lend themselves to commercialization form the basis of future product development. The publication of reports in journals and presentations at international conferences help project the image of RaySearch as a business partner at the cutting edge of research.

Research provides stable base for operations

One of the key factors in RaySearch's success is that the company invests a large portion of its resources in long-term preparations for future product development through a department with research as its primary assignment. RaySearch invests approximately one sixth of its sales in research and slightly more than 60 percent of its sales in research and development. The level of competence in the research department is high, with 65 percent of personnel either holding doctor's degrees or pursuing doctoral studies.

RaySearch's research department is separated from the development department in the organization. The department's independent status strengthens the creative environment needed for more long-term study of new methods and techniques in radiation therapy. Results are gradually transferred to the development department in the form of research data, new product concepts and proposals for improvement of existing products.

Another very important task for the research department is to present results at international conferences and in scientific journals. This work is essential for RaySearch from a marketing perspective, since it contributes both to attracting new partners and preparing the market for new treatment methods. During 2007, RaySearch participated in about ten scientific presentations within such areas as adaptive radiation therapy, radiobiological optimization and proton therapy. Several presentations took place during the leading international conferences ICCR, AAPM, ESTRO and ASTRO.

Moving quickly from research to development

RaySearch's research operations are conducted through internal studies and in close collaboration with reference clinics and universities. Research projects often involve concept studies of algorithms or development of prototype software for studying new treatment techniques. An important task for the department is monitoring scientific developments and thus minimizing the time from scientific publication to finished clinical product.

RaySearch's research is long-term with a result perspective of two to five years and is conducted in areas that company management has identified as attractive from a commercial and technical standpoint. When a commercial partner shows interest in RaySearch, research results are often used as a basis for negotiations and for the coming product development phase. Personnel from the research

department then continue with product development work. In this manner, the process of developing finished products from research results becomes more efficient. During the year, such transitions occurred in development of products in the area of biological optimization for Varian Medical Systems. (Read more about biological optimization in the section on product development on page 24.)

Three research areas particularly important

RaySearch's research focuses primarily on three areas: IMRT, adaptive radiation therapy and radiobiological models.

IMRT is by now a relatively mature treatment technique. However, it is possible to develop solutions and enhancements of existing software according to new and more advanced principles. Examples include the evaluations and tests that have been performed relating to methods for simultaneously optimizing beam angles and fluence in radiation therapy and new methods for generating sequences of treatment plans with increased complexity.

The research department devotes a large portion of its resources to adaptive radiation therapy. Adaptive radiation therapy refers to techniques in which repeated measurements are taken that include the position and shape of tumors and internal organs during the course of treatment and used to adapt the treatment according to anatomical changes. This work includes investigating principles and clinical strategies using the software tools developed for studying adaptive radiation therapy. The potential for improvement is significant with effective use of adaptive techniques. In cooperation with Princess Margaret Hospital, RaySearch previously showed that it is possible to maintain control of tumors in the head and neck region while reducing damage to adjacent healthy organs. An adaptive protocol is now being studied for the more challenging indication cancer of the cervix. Work to improve tools for adaptive radiation therapy will in the future be focused primarily on image processing methods.

The research department works continuously to prepare for increased use of radiobiological models and to improve existing functionality. Radiobiological models are mathematical models for how various organs and tumors respond to radiation. These models can be used to evaluate and optimize treatment plans. As an example, it is possible to use biological models to adjust the radiation dose for unplanned interruptions in the treatment.

Research cooperation of great importance

Cooperation with leading hospitals and universities is of great importance, and cooperation with RaySearch's research partners continues.

Princess Margaret Hospital Princess Margaret Hospital is one of the world's foremost cancer clinics and works with RaySearch in adaptive radiation therapy. The clinic has access to substantial resources for measuring the changes in position of tumors and internal organs that form the basis of adaptive radiation therapy. Within the framework of this cooperation, strategies are being developed for various tumor forms, such as cervical cancer, cancer in the head and neck region and prostate cancer. This is RaySearch's most extensive research partnership to which the company also contributes financially. This investment is now producing results in the form of valuable lessons, data and presentations.

Karolinska Institutet The department for medical radiation phys-

ics at Karolinska Institutet in Stockholm is RaySearch's oldest research partner. This partnership is focused on radiobiological models, light ion therapy and PET-based adaptation and is made possible through partnership agreements, EU projects and industrial doctoral projects.

Royal Institute of Technology Together with the Optimization and System Theory department at the Royal Institute of Technology, research is conducted in the form of industrial doctoral projects relating to more advanced optimization of radiation therapy.

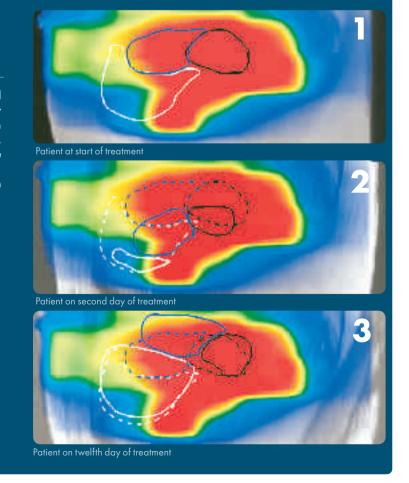
University Medical Centre Nijmegen Research cooperation on evaluation of RaySearch's IMRT products, radiobiological optimization and alternative methods for IMRT optimization.

Clatterbridge Centre for Oncology Research cooperation on evaluation of RaySearch's IMRT products and radiobiological optimization. RaySearch participates in Clatterbridge's annual course in biological optimization.

Adaptive radiation therapy a step towards better care

The images show extensive changes in the position of tumors and internal organs. The changes are due to a difference in the urinary bladder's contents and can be handled with adaptive radiation therapy. The organs outlined in the images are the uterus (black), cervix (blue) and the bladder (white). The dashed contours in the two lower images show the organs' original positions.

These images were obtained from Princess Margaret Hospital in Toronto through an REB-approved (Research Ethics Board) study.



Opportunities for breaking new ground

RaySearch is a knowledge company in which individuals with leading-edge expertise are able to break new ground. The company attracts employees primarily by offering stimulating and challenging work assignments. Successful recruitment and competence development are prerequisites for achieving business success.

Employees at RaySearch have very extensive and specialized expertise, which is essential for the company's development. Each individual employee's expertise can also be seen as an important asset. About one fourth of all employees at RaySearch have doctorates, while the average age is just 33 years.

RaySearch underwent substantial expansion during the year and recruited about 20 new employees, primarily within research and development. The response to the recruitment was tremendous, and the number of applicants and the competence of those we recruited exceeded our very high expectations. The creative environment, in which employees are able to develop advanced solutions based on leading-edge research is one of the most important reasons why RaySearch is able to attract leading expertise. These additional employees constitute a substantial strengthening of knowledge, creativity and development ability, which is needed, given the many new development agreements that have been signed.

Creative teamwork and a sound working environment

Most operational work consisting of product development work is organized in special teams that are responsible for well-defined subprojects. Work is led by a project manager who reports to the management group. During the year, development work was structured in a new manner with better overall coordination, resulting in more effective work without duplicated assignments and in which functions are developed for several products or partners simultaneously.

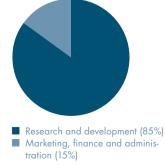
Team spirit, group dynamics and responsibility characterize the company's work methods.

To retain and develop employees, the best possible working environment is created with reasonable working hours, health and fitness benefits and opportunities to participate in business planning as important elements. Employee development discussions with charting of progress towards individual goals take place continuously to promote employee development. Personnel turnover and absence due to illness are very low. During 2007, absence due to illness at RaySearch was 1.3 percent (1.2).

Systematic competence development

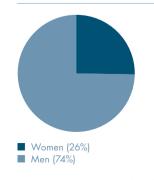
Competence development takes place primarily through exchanges between employees and within the framework of our partnerships with institutions and clinics, such as Karolinska Institutet, the Royal Institute of Technology and Princess Margaret Hospital. The trend toward increased research partnership in practice means greater opportunities for development. Participation in conferences is another activity that is educational, and several employees often attend the major international conferences. Experience from these events is systematically reported to all employees. The research department also arranges seminars to provide information to other employees about developments in strategically important areas. For less specialized work assignments, such as project management, competence-enhancing activities are arranged when the need arises.





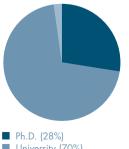
Of 47 employees, 40 work in research and development.

Gender distribution



At year-end 2007, RaySearch had a total of 47 employees, of whom 35 men and 12 women.

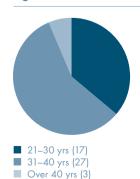
Level of education





RaySearch employees are generally very highly educated – 98% have primary university degrees.

Age distribution



The average age in 2007 was 33 years.



Shares and ownership

SHARE CAPITAL

The share capital in RaySearch Laboratories AB totals SEK 17,141,386.50, corresponding to a total of 11,427,591 shares, distributed among 4,212,908 Class A shares and 7,214,683 Class B shares, each with a quotient value of SEK 1.50. All shares carry equal rights to the company's assets and earnings. Each Class A share carries ten votes and each Class B share carries one vote at the Annual General Meeting. All shareholders entitled

to vote at the Annual General Meeting may vote for the full number of shares owned or represented by them, with no restrictions on voting rights. The term "Founders" in this section refers to Johan Löf, Erik Hedlund, Anders Brahme, Carl Filip Bergendal, Bengt Lind, Anders Liander and Karolinska Institutet Holding AB.

CHANGES IN SHARE CAPITAL OF RAYSEARCH

Year	Transaction	Quotient value (SEK)	Change in number of shares	Increase in share capital	Number of Class A shares	Number of Class B shares	Total number of shares	Total share capital (SEK)
2005	Opening balance	1.50	_	_	4,237,604	6,275,457	10,513,061	15,769,591.50
	Non-cash issue (B)		914,530	1,371,795	4,237,604	<i>7</i> ,189,987	11,427,591	17,141,386.50
	Reclassification 2005				-24,596	24,596		
2005	Closing balance	1.50	-	_	4,213,008	7,214,583	11,427,591	17,141,386.50
	Reclassification 2006				-100	100		
2006	Closing balance	1.50	_	-	4,212,908	<i>7</i> ,214,683	11,427,591	17,141,386.50
2007	Closing balance	1.50	-	-	4,212,908	7 214,683	11,427,591	17,141,386.50

LARGEST SHAREHOLDERS

The table below shows the ownership structure according to the largest shareholders in RaySearch as of December 31, 2007.

Shareholder	Class A shares	Class B shares	Total shares	Capital, %	Votes, %
Johan Löf	2,081,028	281,131	2,362,159	20.7	42.7
Wasatch funds		<i>7</i> 36, <i>7</i> 60	736,760	6.4	1.5
AFA Försäkring		679,255	679,255	5.9	1.4
Erik Hedlund	522,363	76,233	598,596	5.2	10.7
Montanaro group		587,581	587,581	5.1	1.2
Anders Brahme	463,387	66,800	530,187	4.6	9.5
Northern Trust Company ¹⁾		492,497	492,497	4.3	1.0
Anders Liander	353,859	61,719	415,578	3.6	<i>7</i> .3
Carl Filip Bergendal	353,859	51,640	405,499	3.6	<i>7</i> .3
Bengt Lind	353,859	26,640	380,499	3.3	7.2
DWP Bank ¹⁾		299,861	299,861	2.6	0.6
JP Morgan Chase Bank ¹⁾		270,315	270,315	2.4	0.5
Swedish Third Pension fund		213,850	213,850	1.9	0.4
Dekabank ¹⁾		204,000	204,000	1.8	0.4
Dresdner Bank ¹⁾		159,000	159,000	1.4	0.3
RayIncentive AB		149,876	149,876	1.3	0.3
Swedish Fourth Pension fund		126,850	126,850	1.1	0.3
Karolinska Institutet Holding AB	84,252	0	84,252	0.7	1.7
Others	301	2,730,675	2,730,976	24.1	5.7
Total	4,212,908	7,214,683	11,427,591	100.0	100.0

1) Nominee registered.

The following table shows shareholders distributed by size on December 31, 2007.

Distribution	Number of shareholders	Number of Securities	Holdings (%)
1–200	2,748	145,112	1.2
201-1,000	652	346,476	3.1
1,001–2,000	93	137,113	1.2
2,001–5,000	53	173,674	1.5
5,001–10,000	27	181,487	1.6
10,001–20,000	18	246,488	2.2
20,001–50,000	10	379,617	3.3
50,001–100,000	11	735,230	6.4
100,001–	22	9,082,394	79.5
Total	3,634	11,427,591	100.0

The following table shows RaySearch's shareholders distributed by ownership categories on December 31, 2007.

Category	Capital, %	Votes, %
Foreign shareholders	37.8	8.8
Swedish shareholders	62.2	91.2
of which: institutions	10.7	2.5
mutual funds	1.5	0.4
individuals	50.0	88.3

There has been a shift in ownership from individuals to institutions. Foreign owners' shareholdings in RaySearch has increased from 26.2 percent at December 31, 2006 to 37.8 percent at December 31, 2007. The number of shareholders has decreased during 2007. The number of shareholders at December 31, 2007 amounted to 3,634 (4,258).

STATEMENT FROM SOME OF THE PRINCIPAL SHAREHOLDERS

Principal shareholders Johan Löf, Erik Hedlund and Anders Brahme intend to continue as significant long-term shareholders of RaySearch.

SHAREHOLDER AGREEMENTS, ETC.

To the knowledge of the Board of Directors of RaySearch, there are no shareholder agreements for Class B shares. However, there is a shareholder agreement among the Founders for their Class A shares. This agreement stipulates the obligation to offer shares to existing shareholders prior to sales of shares to an outsider and the right for Founders in certain cases to acquire the shares of another Founder, for example if the latter should declare bankruptcy. Bengt Lind, Anders Liander and Karolinska Institutet Holding AB are however completely free to transfer their shares to an outsider without any restrictions. The percentage of total voting rights in RaySearch formally covered by this agreement is about 69.3 percent (about 29.9 percent of capital). The shareholder agreement does not contain any provisions about exercising voting rights. When a Founder no longer holds Class A shares, the Founder is no longer a party to the agreement.

The shareholder agreement also includes an undertaking from the Founders in relation to Philips to the effect that, in the event of a public bid for RaySearch from another party, the Founders shall offer their Class A shares to Philips if Founders with a majority of Class A shares believe that the bid is reasonable and will be accepted.

As a result of RaySearch's licensing agreement with Nucletron, Johan Löf, Erik Hedlund, Anders Brahme and Carl Filip Bergendal have also undertaken, in relation to Nucletron, to retain through their Class A shares voting control over RaySearch. This undertaking in relation to Nucletron shall remain in effect until January 2012 at the latest. Unlike their relationship to Philips, Johan Löf, Erik Hedlund, Anders Brahme and Carl Filip Bergendal do not have any

obligation to offer their shares in RaySearch to Nucletron before selling them to a third party.

As a result of RaySearch's licensing agreement with IBA Dosimetry, Johan Löf, Erik Hedlund, Anders Brahme and Carl Filip Bergendal have also undertaken, in relation to IBA Dosimetry, to retain, through their Class A shares voting control over RaySearch. This undertaking in relation to IBA Dosimetry shall remain in effect until June 2012 at the latest. Unlike their relationship to Philips, Johan Löf, Erik Hedlund, Anders Brahme and Carl Filip Bergendal do not have any obligation to offer their shares in RaySearch to IBA Dosimetry before selling to a third party.

RaySearch's agreement with TomoTherapy gives each party the right to cancel the agreement if a competitor gains significant influence over the other party through the acquisition of shares.

LISTING ON THE OMX NORDIC EXCHANGE LIST

RaySearch is listed on the OMX Nordic Exchange in the Small Cap segment in the Health Care sector. A trading block consists of 50 shares.

SHARE TRADING AND SHARE PRICE TREND

During 2007, a total of 3,592,752 (6,200,779) RaySearch shares were traded at a value of SEK 721.9 M (974.8), corresponding to an average price of SEK 200.93 (157.21). The highest price paid during 2007 was SEK 266.50, on June 1. The lowest price during the same period was recorded on January 2 at SEK 147.00. On the last trading day of the year, December 28, the price per share was SEK 190.00 (150.00). During 2007, the share price increased 27 percent (down 15) for RaySearch's shares, while OMXS showed a decline of 6 percent (up 24) for 2007. Between July 1, 2003 and December 31, 2007, the share price rose 1,087 percent. RaySearch's market value totaled SEK 2,171 M (1,714) at the end of December. In these calculations Class A shares, which are not listed on the stock exchange, were assigned the same value as the listed Class B shares.

LIQUIDITY GUARANTEE

To increase the liquidity of its share, RaySearch signed an agreement with Remium Securities for a liquidity guarantee. This means that Remium Securities undertakes to quote buy and sell prices on the Stockholm Exchange for RaySearch's Class B shares with at least six trading blocks on the buy and sell sides. The liquidity guarantee is intended to ensure that the difference between the buy and sell prices for RaySearch shares does not exceed 2 percent.

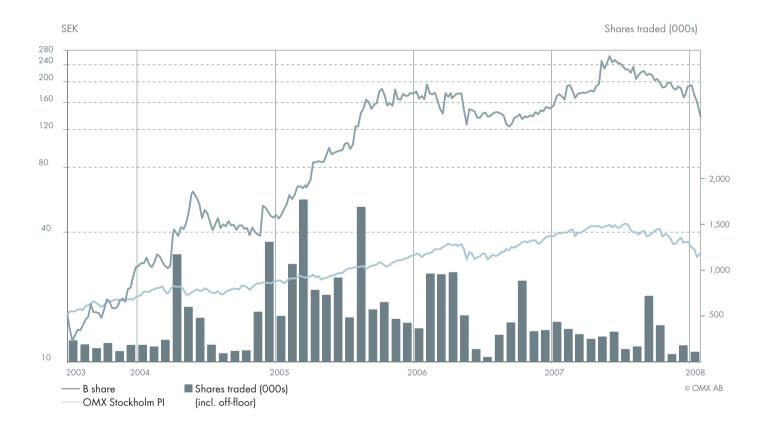
OPTIONS PROGRAM

To facilitate RaySearch in attracting, motivating and retaining people, the company has created options programs. See Note 6.

Key ratios ¹⁾	Dec. 31, 2007	Dec. 31, 2006	Dec. 31, 2005
Number of shares before full dilution	11,427,591	11,427,591	11,427,591
Equity per share, SEK	12.06	10.33	7.16
Earnings per share, SEK	1.73	3.172)	2.56
Earnings per share after full dilution, SEK	1.72	3.152)	2.56
Share price, SEK	190.00	150.00	177.00
P/E-ratio before dilution	110	47	69
P/E-ratio after dilution	110	47	69
Dividend, SEK	0.503)	_	_
Price/Adjusted equity per share, multiple	15.8	14.5	24.7

¹⁾ Definitions of key ratios, page 34.

³⁾ Proposed dividend.



DIVIDEND POLICY

The Board of Directors' intention is to pay as dividends approximately 20 percent of the Group's profit after tax on condition that a healthy capital structure is retained.

SHARE PRICE TREND

The diagram shows the share price for RaySearch from July 2003 to January 2008, as well as the number of shares traded per month. Index: OMXS

²⁾ SEK 2.18 and SEK 2.17, excl. capitalization of loss carry-forwards for tax purposes as of December 31, 2006.

Corporate Governance Report

GENERAL

On July 1, 2005, the Stockholm Stock Exchange began implementation of the Swedish Code of Corporate Governance ("the Code") for all companies on the exchange's then A-List and all companies on the then O-List with a market capitalization exceeding SEK 3 billion. The purpose of the Code is to improve the governance of Swedish companies, especially to ensure that companies are operated in accordance with the interests of their owners. Good corporate governance, in turn, increases confidence in the companies on the capital market and among the general public. Companies that are not obligated to apply the Code can choose to do so voluntarily. The term "applying the Code" involves a company taking an active position as to how the company will relate to the various regulations in the Code. To the extent that companies choose to depart from the rules of the Code, this shall be reported in accordance with the principle of "comply or explain."

RaySearch is not that to apply the Code but the Board has nevertheless decided that the company shall do so since the Board believes it is important for the capital market and the public to have confidence in the company. RaySearch has applied the Code's regulations throughout 2007. This corporate governance report has not been subject to external audit.

As of July 1, 2008, the Code must be applied by companies listed on regulated markets in Sweden

APPLICATION OF THE CODE

In summary, the Board's approach primarily means that no nominating committee, audit committee or remuneration committee was appointed, nor should any report be drawn up regarding Ray-Search's internal controls. In addition to the regulations that, in whole or in part, are not applied due to the fact that they relate to the above-mentioned situation, there are only a few other regulations that the Board has decided RaySearch should not apply.

The reason that no nominating committee will be appointed is that the ownership structure at RaySearch is such that a nominating committee would lack real function and only incur costs. The reason that no audit or remuneration committees have been formed is that the size of the Board and the company does not warrant the expenses

related to such committees. Even the fact that no report over internal controls shall be established is due to the fact that the Board feels the costs of such a report are not motivated for a company the size of RaySearch. Also, the Board has decided, as a departure from the Code's regulations, not to have an external Board secretary. Since the current Board secretary is merely a deputy and seldom participates in Board decisions, the need for an external secretary is not so urgent. Neither does the Company comply with the Code's provision that deputy Board members should not be appointed. This is because the reason for not having deputy members, primarily that they frequently lack information, does not apply to RaySearch since deputy members do not receive less information than Board members.

The Board continuously considers whether its decisions regarding deviations from the Code need to be changed.

ENSURING THE QUALITY OF FINANCIAL REPORTING, ETC.

The Board is responsible for ensuring that there are effective systems for internal controls and risk management. The Board has delegated to the President the task of working on these issues. Responsibility and authority is defined in policies, including the financial policy and authorization manual. The company's auditor attends at least one Board meeting annually.

WORK OF THE BOARD DURING 2007

The Board held eight meetings during the year. Erik Hedlund, Johan Löf, Hans Wigzell and Carl Filip Bergendahl participated on all occasions. Deputy Thomas Pousette participated in all meetings. Considering the size of the Board, it has not been considered necessary to implement any special division of labor within the Board. Nor have any committees been established.

FURTHER INFORMATION

For further information regarding the Board and President, the reader is referred to pages 64–65, and Notes 4 and 6 in the Annual Report. For further information on the auditors, refer to page 67 and Note 5 in the Annual Report. A more detailed corporate governance report is available on RaySearch's home page www.raysearchlabs.com.

Stockholm, March 26, 2008

The Board of Directors

Key Ratios and Financial Overview

The summary shows how the core business developed between 2000 and 2007. The years 2004–2007 were prepared in accordance with IFRS.

Figures in the income statement, balance sheet and cash-flow statement for the full-year 2002 and 2003 refer to the previously prepared pro forma

accounting, since this comparison provides a more accurate picture of how operations have progressed.

Additional information regarding the pro forma accounting can be found in the Annual Report for 2003.

Group	2007	2006	2005	2004	20031)	20021)	20012)	20002)
Net sales, SEK M	64.7	69.0	69.9	39.5	34.0	31.0	21.1	_
Growth in sales, %	-6.2	-1.3	77.0	16.0	9.7	46.9	_	_
Operating profit/loss, SEK M	25.8	33.5	39.6	12.5	12.9	8.0	11.1	-1.3
Operating margin, %	39.8	48.6	56.7	31.6	37.8	25.9	52.8	_
Profit margin, %	43.3	50.5	<i>57</i> .3	32.0	38.5	26.8	53.1	-
Net profit/loss, SEK M	19.8	36.2	29.1	11.2	8.7	3.9	6.4	-1.3
Earnings per share, SEK	1.73	3.173)	2.56	1.07	0.83	0.37	0.61	-0.12
Cash flow per share, SEK	3.31	2.63	3.64	1.22	1.15	1.60	0.68	-0.29
Dividend per share, SEK	0.54)	-	-	_	-	0.18	0.18	-
Capital employed, SEK M	137.9	118.1	81.9	39.4	28.3	23.6	14.1	5.0
Interest-bearing liabilities, SEK M	-	-	-	-	_	-	-	0.2
Total assets, SEK M	173.2	146.3	107.2	54.8	42.5	31.8	18.1	5.5
Equity per share, SEK	12.1	10.33	<i>7</i> .16	3.75	2.69	2.25	1.07	0.46
Equity/assets ratio, %	79.6	80.7	76.4	72.0	66.5	74.5	73.2	86.5
Share of risk-bearing capital, %	92.8	92.9	89.3	88.6	81.9	84.2	77.4	86.5
Return on capital employed, %	22.2	34.9	66.1	37.5	50.7	44.2	117.7	_
Return on total capital, %	17.8	27.5	49.5	26.1	35.5	33.5	94.1	-
Return on equity, %	15.5	36.2	48.0	33.1	33.7	21.3	71.5	_
Share price at year-end, SEK	190.0	150.0	177.00	48.60	25.00	_	-	-
Average number of employees	37	28	27	23	19	16	8	2

¹⁾ Pro forma in accordance with Swedish Financial Accounting Standards Council Recommendations, see Annual Report for 2003.

DEFINITIONS OF KEY DATA

Capital employed

Total assets less non-interest-bearing liabilities including deferred tax liability.

Cash flow per share

Cash flow from current operations divided by average number of shares during the year.

Dividend per share, SEK

Dividend divided by number of shares at year-end.

Earnings per share

Net earnings divided by average number of shares during year.

Equity/assets ratio

Equity as a percentage of total assets.

Equity per share

Equity divided by number of shares at end of year.

Operating margin

Operating profit, expressed as a percentage of net sales.

P/E-ratio

Share price divided by earnings per share, before and after dilution.

Share price/Adjusted equity per share

Share price divided by adjusted equity per share at year-end.

Profit margin

Income after financial items expressed as a percentage of net sales.

Return on capital employed

Operating profit plus financial income expressed as a percentage of average capital employed.

Return on equity

Net income after taxes expressed as a percentage of average shareholders' equity.

Return on total capital

Operating profit plus financial income expressed as a percentage of total assets.

Share of risk-bearing capital

Equity plus deferred tax liabilities expressed as a percentage of total assets.

There are no minority interests with the Group for accounting purposes.

²⁾ Pertains to RaySearch Medical AB in accordance with the general directives of the Swedish Accounting Standards Board.

³⁾ SEK 2.18, excl. capitalization of loss carry-forwards in 2006.

⁴⁾ Proposed dividend 2007.

CONSO	IDATED	INCOME	STATEMENTS

2007	2006	2005	2004	2003
64,705	68,976	69,855	39,479	34,021
-863	-849	-1,121	-1,238	-1,493
63,842	68,127	68,734	38,241	32,528
-24,225	-17,379	-16,069	-13,147	-5,217
-13,836	-17,208	-13,058	-12,634	-14,458
25,781	33,540	39,607	12,460	12,853
2,260	1,320	408	158	259
28,041	34,860	40,015	12,618	13,112
-8,262	1,359	-10,873	-1,403	-4,362
19,779	36,219	29,142	11,215	8,750
1.73	3.17	2.56	1.07	0.83
1.72	3.15	2.56	0.98	0.77
	64,705 -863 63,842 -24,225 -13,836 25,781 2,260 28,041 -8,262 19,779 1.73	64,705 68,976 -863 -849 63,842 68,127 -24,225 -17,379 -13,836 -17,208 25,781 33,540 2,260 1,320 28,041 34,860 -8,262 1,359 19,779 36,219 1.73 3.17	64,705 68,976 69,855 -863 -849 -1,121 63,842 68,127 68,734 -24,225 -17,379 -16,069 -13,836 -17,208 -13,058 25,781 33,540 39,607 2,260 1,320 408 28,041 34,860 40,015 -8,262 1,359 -10,873 19,779 36,219 29,142 1.73 3.17 2.56	64,705 68,976 69,855 39,479 -863 -849 -1,121 -1,238 63,842 68,127 68,734 38,241 -24,225 -17,379 -16,069 -13,147 -13,836 -17,208 -13,058 -12,634 25,781 33,540 39,607 12,460 2,260 1,320 408 158 28,041 34,860 40,015 12,618 -8,262 1,359 -10,873 -1,403 19,779 36,219 29,142 11,215 1.73 3.17 2.56 1.07

CONSOLIDATED BALANCE SHEETS

Amounts in SEK 000s	Dec. 31, 2007	Dec. 31, 2006	Dec. 31, 2005	Dec. 31, 2004	Dec. 31, 2003 ¹⁾
ASSETS					
Intangible fixed assets	62,738	45,397	34,876	25,707	1 <i>7</i> ,532
Other fixed assets	13,586	12,232	1,351	3,950	2,149
Total fixed assets	76,324	57,629	36,227	29,657	19,681
Total current assets	96,909	88,645	70,954	25,138	22,796
TOTAL ASSETS	173,233	146,274	107,181	54,795	42,477
SHAREHOLDERS' EQUITY AND LIABILITIES					
Shareholders' equity attributable to Parent Company's shareholders	137,851	118,072	81,854	39,475	28,260
Liabilities	35,382	28,202	25,327	15,320	14,217
TOTAL SHAREHOLDERS' EQUITY AND LIABILITIES	173,233	146,274	107,181	54,795	42,477

CONSOLIDATED CASH-FLOW STATEMENT

Cash flow for the year	12,303	13,221	40,032	1,029	369
Cash flow from financing activities	-	-	13,279	-	-1,981
Cash flow from investing activities	-25,559	-16,872	-14,640	-11,843	-9 <i>,7</i> 68
Cash flow from operating activities	37,862	30,093	41,393	12,872	12,118
Amounts in SEK 000s	2007	2006	2005	2004	20031)

¹⁾ Pro forma in accordance with Swedish Financial Accounting Standards Council Recommendations, see Annual Report for 2003.

Board of Directors' and President's Report

The Board of Directors and President of RaySearch Laboratories AB (publ), corporate registration number 556322-6157, submit herewith the annual report and consolidated accounts for the 2007 fiscal year.

OPERATIONS

RaySearch is a medical technology company that develops advanced software for improved radiation therapy of cancer. RaySearch's products are sold through license agreements with leading partners. The business model facilitates RaySearch's focus on research and development, while the respective partners are responsible for marketing and sales of products on the world market. To date, eight products have been launched and RaySearch's software is used in more than 1,200 clinics in over 30 countries. Ray Search is listed on the Small Cap segment of the OMX Nordic Exchange in Stockholm.

HIGHLIGHTS OF THE YEAR

Agreement between Varian Medical Systems and RaySearch

Varian Medical Systems and RaySearch signed a long-term strategic collaboration agreement in May to develop advanced treatment planning software for radiation therapy of cancer. Varian is the leading supplier of products in radiotherapy and within the framework of the cooperation, RaySearch will develop a number of new products for improved treatment planning that will be offered to Varian's large installed base. The collaboration agreement involves radiobiological evaluation and radiobiological optimization of treatment plans for standard photon/electron radiation therapy, intensity modulated radiation therapy (IMRT) and proton therapy, as well as optimization of conventional three-dimensional radiotherapy (3-D CRT). The products will be seamlessly integrated into Varian's Eclipse treatment planning system, an advanced software for planning of radiation therapy of cancer.

Agreement between TomoTherapy and RaySearch

RaySearch signed a license agreement in August with TomoTherapy, which became RaySearch's fifth partner. TomoTherapy develops, manufactures and sells a highly innovative technology and is a rapid-growing supplier of equipment for radiation therapy. The agreement involves development of a suite of products that facilitate the transfer of treatment plans between a TomoTherapy Hi-Art system and a conventional linear accelerator (linac). The possibility to transfer treatment plans between TomoTherapy Hi-Art radiation therapy machines and conventional linacs results in an improved balancing of workloads in clinics with different types of accelerators. This results in better utilization of the accelerators and higher capacity to treat patients. To date, three products have been specified.

COMPASS® approved by the FDA and launched

In December, COMPASS* received 510(k) clearance from the US Food and Drug Administration (FDA) and was launched globally by IBA Dosimetry. COMPASS* is a market-leading dosimetry solution for

quality assurance of intensity modulated radiation therapy and has been developed in cooperation with IBA Dosimetry. Initially, two of the three software products contracted with IBA Dosimetry are included. The product enables the medical staff to measure and reconstruct the 3D radiation dose that was actually delivered to the patient every day during the course of treatment. This is highly valuable, particularly in advanced IMRT/IGRT treatments that aim to maximize the effective dose delivered to the tumor while avoiding damage to surrounding healthy tissue. In addition to improving the precision, COMPASS* has the potential to significantly speed up the quality assurance process, which will enable the clinics to spend more time on treating patients and simultaneously improve safety.

Expansion

RaySearch expanded during the year, The company employed about 20 persons. This mainly involves strengthening within research and development with more system developers, mathematicians and radiation physicists. Following this recruiting, the number of employees has increased to 47.

SALES AND EARNINGS

Total sales for full-year 2007 declined by 6 percent, compared with the preceding year and amounted to SEK 64.7 M (69.0). The number of licenses sold amounted to 731 (816) and license revenues during 2007 totaled SEK 45.1 M (52.9). Sales comprise mainly license revenues from p-RayOptimizer and p-RayMachine and support revenues. Support revenues are based on the accumulated license revenues and consequently grow continually. Support revenues rose 22 percent in 2007 and amounted to SEK 19.6 M (16.1). The decline in sales in absolute figures is equally distributed between Philips and Nucletron. The Philips decline is mainly attributable to the weakening USD. Sales of p-RayOptimizer since launch in 2001 have been at a steady level on an annual basis and RaySearch sees no signs of a decline. The decline for Nucletron is attributable primarily to sales in the fourth quarter of 2007 being lower than the relatively high levels achieved in the fourth quarter of 2006.

Operating profit in 2007 amounted to SEK 25.8 M (33.5), corresponding to an operating margin of 39.8 (48.6) percent.

Profit after tax during 2007 amounted to SEK 19.8 M (36.2), corresponding to earnings per share after tax of SEK 1.73 (3.17). In the preceding year, net profit was affected positively by SEK 11.3 M due to deferred tax revenues related to tax loss cary-forwards. The tax loss carry-forward can be applied from and including 2009.

OPERATING EXPENSES AND CAPITALIZATION OF DEVELOPMENT COSTS

Operating costs excluding currency effects increased by SEK 4.6 M, compared with the preceding year, and amounted to SEK 38.1 M. This increase was due to increased research efforts, primarily within radi-

ation therapy with protons and adaptive radiation therapy, and the research collaboration with Princess Margaret Hospital. Costs for recruitment, larger offices, premises renovation and increased amortization of capitalized development expenses also contributed to the increase. Other operating revenues and other operating expenses pertain to exchange rate gains and losses, and the net of these amounted to SEK 0.1 M (-1.1) during 2007.

As of December 31, 2007, 40 (23) employees worked with research and development. Research and development costs include costs for payroll, consulting fees, computer equipment and premises. Before capitalization and amortization, research and development costs totaled SEK 41.1 M (27.8) and are expected to continue to represent a significant portion of costs in the future.

During 2007, development costs amounting to SEK 23.4 M (16.1) were capitalized. Amortization of development costs in 2007 amounted to SEK 6.6 M (5.7). See Note 16.

LIQUIDITY AND FINANCIAL POSITION

At December 31, 2007, cash and cash equivalents was SEK 79.1 M, compared with SEK 66.8 M at December 31, 2006. At December 31, 2007, current receivables totaled SEK 17.8 M, compared with SEK 21.8 M at December 31, 2006. RaySearch has no interest-bearing liabilities.

CASH FLOW

Cash flow in 2007 totaled SEK 12.3 M (13.2). Cash flow from operating activities amounted to SEK 37.9 M (30.1).

CURRENCY EXPOSURE

The company is dependent on the exchange-rate trend for USD and EUR in relation to SEK, since invoicing is in USD to Philips and in EUR to Nucletron. During 2007, revenues from Philips were recorded at an average USD exchange rate of SEK 6.70, compared with SEK 7.31 during 2006. During 2007, revenues from Nucletron were recorded at an average EUR exchange rate of 9.27, compared with SEK 9.14 in 2006. The company follows a currency policy established by the Board of Directors. The company has not engaged in any currency hedging during 2007. See sensitivity analysis in Note 27.

INVESTMENTS

Fixed assets mainly comprise capitalized development costs. Investments in intangible fixed assets during 2007 amounted to SEK 24.3 M (16.5) and investments in tangible fixed assets were SEK 2.1 M (0.5). Investments in tangible fixed assets pertained to computers and furniture. Refer to Notes 16, 17 and 18.

RESEARCH AND DEVELOPMENT

Research work at RaySearch focuses primarily on the following areas: radiation therapy with protons and adaptive radiation therapy as well as the research cooperation with Princess Margaret Hospital. Research operations are conducted in close cooperation with such organizations

as Karolinska Institutet in Solna, Stockholm, Royal Institute of Technology in Stockholm, Princess Margaret Hospital, Toronto in Canada, University Medical Centre Nijmegen in the Netherlands and Clatterbridge Centre for Oncology in the United Kingdom.

Development focuses on translating market demand, customer preferences and research results into products. This occurs through the creation of new products and the further development and maintenance of existing products. In 2007, research and development focused on radiation therapy with protons, adaptive radiation therapy and IMRT quality assurance. In adaptive radiation therapy there is a major need for new, innovative tools and algorithms, as well as the creation and further development of products involved in the company's ongoing cooperation programs with Philips and Nucletron. Adaptive radiation therapy increases geometric precision by taking into account changes in the patient's anatomy during the actual treatment. RaySearch is involved in cooperative ventures on several fronts in adaptive radiation therapy. In quality assurance for IMRT, as part of its cooperation program with IBA Dosimetry, RaySearch has developed advanced software that supports and efficiency-enhances quality assurance for IMRT.

EMPLOYEES

At December 31, 2007, the number of employees at RaySearch totaled 47 (29). The average number of employees during 2007 was 37 (28). The workforce has a high academic background, with 28 percent holding PhDs and 98 percent with degrees from universities/technology institutes. RaySearch has an equal opportunity plan.

THE WORK OF THE BOARD

RaySearch's Board of Directors, which consists of four directors and a deputy, was elected by the shareholders at the Annual General Meeting on May 15, 2007. The company's President is a member of the Board. The Board held eight meetings in 2007.

The Board conducts its work according to special rules of procedure and instructions regulating the distribution of work between the Board and the President. At each regular meeting the Board reviews specific reports and decision points. The Board considers issues involving strategy, structure and organization, as well as research and development. The Board also addresses license agreements, interim reports, annual financial statements, as well as audit and budget-related issues. Significant decisions made by the Board during the year include the agreements between Varian and RaySearch and between TomoTherapy and RaySearch.

In addition to the President, who is the reporting party during Board meetings, other company employees also participate as required.

The Board approved the President's remuneration and benefits package for the 2007 financial year. The President, in consultation with the Chairman of the Board, approved remuneration to other senior executives. The Board of Directors does not have remuneration or nomination committees.

The company's auditor attends at least one Board meeting annually.

While RaySearch is not obligated to apply the Swedish Code for Corporate Governance, the Board has nevertheless decided that the company shall do so, as the Board considers it important that the capital market and public have confidence in the company.

PARENT COMPANY

The Group's Parent Company is RaySearch Laboratories AB (publ). Earnings before tax amounted to SEK 9.6 M (18.0). As of December 31, 2007 the Parent Company had cash and cash equivalents amounting to SEK 64.2 M (52.3).

OFFICES OUTSIDE SWEDEN

RaySearch has no branch offices outside Sweden.

HOLDINGS OF OWN SHARES (TREASURY STOCK)

The holdings of treasury stock at December 31, 2007 amounted to 149,876 shares held by RayIncentive AB. The quotient value of these shares is SEK 1.50. These shares correspond to 1.3 percent of the share capital. The payment made for these shares totals SEK 276,000. No own shares were acquired or transferred during the fiscal year.

SHARES AND OWNERSHIP

The total number of shares in RaySearch are 11,427,591, distributed among 4,212,908 Class A shares and 7,214,683 Class B shares, each with a quotient value of SEK 1.50. All shares carry equal rights to the company's assets and earnings. Each Class A share carries ten votes and each Class B share carries one vote at the Annual General Meeting. All shareholders entitled to vote at the Annual General Meeting may vote for the full number of shares owned or represented by them, with no restrictions on voting rights. The largest shareholders in RaySearch are Johan Löf, who owns 20.7 percent of the capital and 42.7 percent of the votes, Wasatch funds who own 6.4 percent of the capital and 1.5 percent of the vote, AFA Försäkring who own 5.9 percent of the capital and 1.4 percent of the votes and Erik Hedlund who owns 5.2 percent of the capital and 10.7 percent of the votes.

To the knowledge of the Board of Directors of RaySearch, there are no shareholder agreements for Class B shares. However, there is a shareholder agreement among Johan Löf, Erik Hedlund, Anders Brahme, Carl Filip Bergendahl, Bengt Lind, Anders Liander and Karolinska Institutet Holding AB (the Founders) concerning their Class A shares. This agreement stipulates the obligation to offer shares to existing shareholders prior to sales of shares to an outsider and the right for Founders in certain cases to acquire the shares of another Founder. The percentage of total voting rights in RaySearch formally covered by this agreement is about 69.3 percent (about 29.9 percent of capital).

The shareholder agreements also include an undertaking from the Founders in relation to Philips to the effect that, in the event of a public bid for RaySearch from another party, the Founders shall offer

their Class A shares to Philips if Founders with a majority of Class A shares believe that the bid is reasonable and will be accepted.

As a result of RaySearch's licensing agreement with Nucletron, Johan Löf, Erik Hedlund, Anders Brahme and Carl Filip Bergendal have also undertaken, in relation to Nucletron, to retain, through their Class A shares voting control over RaySearch. This undertaking in relation to Nucletron shall remain in effect until January 2012 at the latest.

As a result of RaySearch's licensing agreement with IBA Dosimetry, Johan Löf, Erik Hedlund, Anders Brahme and Carl Filip Bergendal have also undertaken, in relation to IBA Dosimetry, to retain, through their Class A shares voting control over RaySearch. This undertaking in relation to IBA Dosimetry shall remain in effect until June 2012 at the latest.

RaySearch's agreement with TomoTherapy gives each party the right to cancel the agreement if a competitor gains significant influence over the other party through the acquisition of shares.

There are no special rules in the Articles of Association regarding appointment and removal of Board members or about changes to the Articles of Association. The General Meeting of shareholders has not authorized the Board to decide on the company issuing new shares or acquiring own shares. Nor is there any agreement between the company and Board members or employees, that in the event of a public offer to acquire shares in the company, prescribes any payments if these persons resign, are given notice without reasonable grounds or if their employment ceases. Refer also to shares and ownership on page 30.

GUIDELINES FOR REMUNERATIONS TO SENIOR EXECUTIVES

The starting point for the Board is that remuneration and other conditions of employment for company management shall be on market terms. The principles for remuneration and other employment conditions applied during 2007 are described below.

Salary and other remuneration

The President has a fixed basic salary and a variable remuneration. The variable remuneration amounts to 2.0 percent of the Groups' profit before taxes, however, not more than six months of salary. In addition, the President has a company car.

The President's salary is reviewed annually. This is carried out through negotiations between the President and the Chairman of the Board, after which the Chairman presents a proposal to the other Board members. The President is not present when the Board decides on this matter.

The other senior executives comprise the CFO, Director of Research, Director of Development and Director of Marketing. These persons also have a fixed salary and a variable remuneration. The variable remuneration is based on the outcome in relation to individually established goals and amounts to a maximum of one month of salary. This is carried out in negotiations between the President and each employee.

Incentive program

There are no incentive programs aimed at the company's management.

Pension

All pension undertakings are defined-contribution plans. Retirement age for the President and the other senior executives is 65 and the pension premium is equivalent to the Swedish ITP plan.

Termination of employment

If the President chooses to terminate employment, his term of notice is six months; if the employer terminates employment, the term of notice is twelve months. In both cases, the President receives pay during the term of notice. The company and the other senior executives have a mutual term of notice of three months during which they receive salary.

Severance pay

Neither the President nor other senior executives are entitled to any severance pay, in the formal meaning, if their employment ceases. However, as stated above, the President and the other senior executives have a right to salary during the notice period.

Proposal for guidelines in 2008

The Board proposes that the above guidelines shall remain valid with the following changes for the period following the 2008 Annual General Meeting. The Board proposes that the bonus is removed for all employees except the President and that it is replaced by a profit-sharing foundation. The profit-sharing foundation shall in principle include all employees including senior executives except the President. Allocation to the profit-sharing foundation shall be calculated as a percentage of earnings with a maximum result amount. In addition, an incentive program is proposed that shall be based on the existing shares in RaySearch held by RayIncentive AB and shall solely be aimed at the employees including senior executives who did not participate in earlier option programs. The Board proposes that it should be able to deviate from the guidelines if specific reasons arise. A more detailed proposal will be published in adequate time prior to the Annual General Meeting.

SIGNIFICANT EVENTS AFTER THE CLOSE OF THE FINANCIAL YEAR

No significant events occurred after the end of the year.

RISKS AND UNCERTAINTY FACTORS

Financial risk management

The Group's finance policy for the management of financial risks was established by the Board of Directors and represents a framework of guidelines and rules in the form of risk mandates and limits for financial activities. RaySearch is primarily influenced by exchange-rate risk. All of the Group's net sales are in USD or EUR. In accordance with the established financial policy, no currency hedging is employed. The finance policy is updated at least once annually.

Operational risks

As a result of its activities, the Group is exposed to various operational risks including the following: dependency on key persons, competition and strategic partnerships. RaySearch currently has partnerships with Philips, Varian, Nucletron, IBA Dosimetry and TomoTherapy. RaySearch also has several research partnerships. If RaySearch were to lose one or more of these partners, this could have a large effect on the company's sales, profit and financial position. This risk was reduced in 2007 since the number of partners increased from three to five. RaySearch is engaged in continuous discussions with a number of medical technology companies in respect of new collaborations.

Refer to the Accounting Principles, Note 1 on page 45, for more information on risks and risk management.

FUTURE PROSPECTS

The collaborations with Philips, Nucletron and IBA Dosimetry continue to develop well. With the launch of COMPASS* in cooperation with IBA Dosimetry, RaySearch has entered a completely new market area and now has a total of eight products on the market. The agreements with Varian and TomoTherapy mean that RaySearch has five cooperation partners and in total about 15 contracted products are under development and are planned to be launched in the years ahead. Overall, these factors point to favorable prospects for RaySearch in continuing to build one of the world's leading companies in treatment planning for radiation therapy.

PROPOSAL FOR THE ALLOCATION OF THE COMPANY'S PROFIT OR LOSS

The Group's earnings and financial position are presented in the following income statements, balance sheets, and cash flow statements with accompanying notes to the financial statements. The Board of Directors and the President propose that:

SEK 000s

Retained earnings	0
Profit for the year	6,665
Dividend to shareholders of SEK 0.50 per share	
(11,427,591 shares prior to split x SEK 0.50), total	5,714
To be carried forward	951

3:1 share split

The Board and the President propose that the Annual General Meeting decide on a 3:1 share split. Each share will be split into three shares. After the split, the total number of shares will amount to 34,282,773. The quotient value will change from the current SEK 1.50 to SEK 0.50.

Income Statements

GROUP			
Amounts in SEK 000s	Note	2007	2006
Net sales	2, 3	64,705	68,976
Cost of goods sold		-863	-849
Gross profit	27	63,842	68,127
Other operating income	8	453	432
Selling expenses		-1,366	-2,170
Administrative expenses	10	-12,525	-13,899
Research and development costs	10	-24,225	-17,379
Other operating expenses	9	-398	-1,571
Operating profit	4, 5, 6, 7, 11	25,781	33,540
Financial income		2,570	1,339
Financial expenses		-310	_19
Net financial income	12	2,260	1,320
Profit before tax		28,041	34 860
Tax	14	-8,262	1,359
Profit/loss for the year ¹⁾		19,779	36,219
Earnings per share before full dilution (SEK)	15	1.73	3.17
Earnings per share after full dilution (SEK)	15	1.72	3.15
1) 100 percent attributable to the Parent Company's shareholders.			
PARENT COMPANY			
Amounts in SEK 000s	Note	2007	2006
Net sales	2, 3	64,705	68,976
Cost of goods sold		-863	-849
Gross profit	27	63,842	68,127
Other operating income	8	453	432
Selling expenses		-1,366	-2,170
Administrative expenses	10	-14,255	-15,528
Research and development costs	10	-39,31 <i>7</i>	-26,094
Other operating expenses	9	-398	-1,571
Operating profit	4, 5, 6, 7, 11	8,959	23,196
Other operating revenue and similar profit/loss items	12	2,091	1,039
Interest expenses and similar items	12	-310	_19
Net financial income		10,740	24,216
Appropriations	13	-1,101	-6,167
Profit before tax		9,639	18,049
Tax	14	-2,974	6,067

24,116

6,665

Profit for the year

Balance sheets

GRO	UP
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GROOP			
Amounts in SEK 000s	Note	Dec. 31, 2007	Dec. 31, 2006
ASSETS			
Fixed assets			
Intangible fixed assets			
Capitalized development costs	16	61,574	44,697
Computer software	17	1,164	700
		62,738	45,397
Tangible fixed assets			
Equipment, tools, fixtures and fittings	18	2,333	979
		2,333	979
Financial fixed assets			
Deferred tax receivable	23	11,253	11,253
		11,253	11,253
Total fixed assets		76,324	57,629
CURRENT ASSETS			
Current receivables			
Accounts receivable	20, 27	11,143	17,928
Tax receivable		2,643	-
Other receivables		1,107	1,104
Prepaid expenses and accrued income	21	2,881	2,781
Cash and cash equivalents	22	79,135	66,832
Total current assets		96,909	88,645
TOTAL ASSETS		173,233	146,274
EQUITY			
Share capital		17,141	17,141
Other contributed capital		1,975	1,975
Retained earnings including net profit for the year		118,735	98,956
Equity attributable to the Parent Company's shareholders		137,851	118,072
Total equity		137,851	118,072
LIABILITIES			
Deferred tax liabilities	23	22,850	17,816
Other long-term liabilities	25	967	967
Total long-term liabilities		23,817	18,783
Accounts payable		4,577	2,296
Tax liabilities		119	1,089
Other liabilities		1,464	886
Accrued expenses and deferred income	26	5,405	5,148
Total current liabilities		11,565	9,419
Total liabilities		35,382	28,202
TOTAL EQUITY AND LIABILITIES		173,233	146,274
	20		7
Pledged assets Chattel mortgages	29	5,000	5,000
Contingent liabilities			
comingen numines		none	none

Balance sheets

P	A	R	E	١	11	ſ	C	O	٨	٨	P	Α	1	V	Y	
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Amounts in SEK 000s	Note	Dec. 31, 2007	Dec. 31, 2006
ASSETS			
Fixed assets			
Intangible fixed assets			-
Computer software	17	1,164	700
To sell to the selection of		1,164	700
Tangible fixed assets Equipment, tools, fixtures and fittings	18	2,333	979
Equipment, tools, fixibles and finings	10		
Financial fixed assets		2,333	979
Participations in Group companies	19	2,160	2,160
Deferred tax receivables	23	11,253	11,253
		13,413	13,413
Total fixed assets		16,910	15,092
Current assets			
Current receivables			
Accounts receivable	20, 27	11,143	17,928
Tax receivable		2,643	_
Other receivables	0.1	1,107	1,104
Prepaid expenses and accrued income	21 22	2,881	2,781
Cash and cash equivalents		64,217	52,320
Total current assets TOTAL ASSETS		81,991 98,901	74,133 89,225
EQUITY AND LIABILITIES			
Equity Restricted a quite			
Restricted equity Share capital (4,212,908 A shares, 7,214,683 B shares)		17,141	17,141
Statutory reserve		43,630	217,116
<u></u>		60,771	234,257
Unrestricted equity		00,771	204,207
Retained earnings		_	-197,602
Profit for the year		6,665	24,116
		6,665	-173,486
Total equity		67,436	60,771
Untaxed reserves	24	20,033	18,932
Current liabilities			
Accounts payable		4,577	2,296
Current tax liabilities		.	1,202
Other liabilities	0.4	1,464	885
Accrued expenses and deferred income	26	5,391	5,139
Total long-term liabilities		11,432	9,522
TOTAL EQUITY AND LIABILITIES		98,901	89,225
Pledged assets	29		
Chattel mortgages		5,000	5,000
Contingent liabilities		none	none

Summary of changes in equity

GROUP

Amounts in SEK 000s	Share capital	Other contributed capital	Retained earnings, incl net profit for the year	Total
Opening equity January 1, 2006	17,141	1,975	62,737	81,853
Net profit for the year			36,219	36,219
Closing equity December 31, 2006	17,141	1,975	98,956	118,072
Net profit for the year			19, <i>77</i> 9	19,779
Closing equity December 31, 2007	17,141	1,975	118,735	137,851

PARENT COMPANY

Amounts in SEK 000s	Share capital	Statutory reserve	Retained earnings	Total
Opening equity January 1, 2006	17,141	217,116	7,263	241,520
Merger loss	•	,	-204,865	-204,865
Net profit for the year			24,116	24,116
Closing equity December 31, 2006	17,141	217,116	-173,486	60,771
Reduction of statutory reserve		-173,486	173,486	-
Net profit for the year			6,665	6,665
Closing equity December 31, 2007	17,141	43,630	6,665	67,436

Treasury stock and options

RayIncentive's holding of shares in RaySearch Laboratories amounted to 149,876 shares at December 31, 2007. RayIncentive has issued options on 115,500 of these shares, mainly to people employed at RaySearch. The consolidated carrying amount of these 149,876 shares in RaySearch Laboratories is SEK 0. During 2006, RaySearch Medical AB merged with RaySearch Laboratories AB.

Capital management

RaySearch has the following dividend policy. The Board of Directors' intention is to pay as dividends approximately 20 percent of the Group's profit after tax on condition that a healthy capital structure is retained. RaySearch has no external loans.

The Board has proposed to the 2008 Annual General Meeting a dividend of SEK 0.50 per share before the share split. The proposed dividend amounts to SEK 5,714,000 and corresponds to 4 percent of the shareholders' equity in the company. No dividend was paid in the preceding year.

Many employees own shares and/or options in RaySearch.

The Board has no mandate from a General Meeting to repurchase shares. The Group has not repurchased shares. During the year, there was no change in the Group's capital management.

Shareholders' equity is defined as share capital, statutory reserve and unrestricted shareholders' equity.

The Group is not subject to any external capital requirements.

Cash-flow statements

Amounts in SEK 000s	2007	2006
Operating activities		
Profit before tax	28,041	34,860
Adjustments for items not included in cash flow, etc.	6,864	6,858
Taxes paid	-6,841	-7,905
Cash flow from operating activities before changes in working capital	28,064	33,813
Cash flow from changes in working capital		
Increase (–)/Decrease (+) in operating receivables	6,681	-4,471
Increase (+)/Decrease (-) in operating liabilities	3,117	<i>7</i> 51
Cash flow from operating activities	37,862	30,093
Investing activities		
Capitalized development expenditure	-23,399	-16,511
Acquisition of tangible fixed assets	-2,160	-512
Acquisition of financial assets	-	151
Cash flow from investing activities	-25,559	-16,872
Cash flow for the year Cash and cash equivalents at the beginning of the year	12,303 66,832	13,221 53,611
Cash and cash equivalents at year-end	79,135	66,832
PARENT COMPANY		
Amounts in SEK 000s	2007	2006
Operating activities		
Profit after financial items	10,740	24,216
Adjustments for items not included in cash flow, etc.	1,179	1,023
Taxes paid	-6,819	<i>–7,4</i> 10
Cash flow from operating activities before changes in working capital	5,100	17,829
Cash flow from changes in working capital		
Increase (-)/Decrease (+) in operating receivables	6,682	-4,470
Increase (+)/Decrease (-) in operating liabilities	3,112	750
Cash flow from operating activities	14,894	14,109
Investing activities		
Investments in software	-837	-421
Acquisition of tangible fixed assets	-2,160	-512
Acquisition of financial assets	-	151
Cash flow from investing activities	-2,997	-782
Cash flow for the year	11,897	13,327
Cash and cash equivalents at the beginning of the year	52,320	-
Cash and cash equivalents at the beginning of the year Cash and cash equivalents from merged company	52,320 	38,993

Notes

NOTE 1 / GENERAL ACCOUNTING PRINCIPLES

COMPLIANCE WITH STANDARDS AND LAWS

The annual accounts have been prepared in accordance with the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) and interpretation rulings issued by the International Financial Reporting Interpretations Committee (IFRIC) that have been approved by the EU Commission for application within the EU. Additionally, the Swedish Financial Accounting Standards Council (RR) recommendation RR 30:06 Supplementary Rules for Consolidated Financial Statements, has been applied.

The Parent Company implements the same accounting principles as the Group except in those instances specified below under the section "Parent Company's accounting principles." The differences that exist between the Parent Company's and the Group's principles result from limitations in the ability to implement IFRS at the Parent Company due to the Swedish Annual Accounts Act and the Swedish Act on the Protection of Pension Commitments (Tryggandelagen) and, in certain instances, for tax reasons.

ASSUMPTIONS WHEN PREPARING THE PARENT COMPANY'S AND THE GROUP'S FINANCIAL REPORTS

The Parent Company's functional currency is the Swedish krona (SEK), which is also deemed the reporting currency for the Parent Company and Group. This means that financial reports are presented in SEK. All amounts, unless otherwise specified, are rounded off to the nearest thousand. Assets and liabilities are reported at their historical acquisition value, except for certain financial assets and liabilities that are valued at fair value. Financial assets and liabilities valued at fair value consist of assets classified as financial assets valued at fair value in the income statement.

Preparing financial reports in accordance with IFRS requires that company management make assessments and estimates as well as assumptions that impact the application of the accounting principles and the reported amounts of assets, liabilities, revenues and expenses. Estimates and assumptions are based on historical experience and a number of other factors that, under existing circumstances, appear reasonable. The result of these estimates and assumptions is then used to estimate the reported values of assets and liabilities that would otherwise not clearly appear from other sources. Actual results can vary from these estimates and assumptions.

Estimates and assumptions are regularly reviewed. Changes to estimates are reported in the period the change is made if the change affects only that period, and in the current period and future periods if the change affects both current period and future periods.

Estimates made by company management in implementing IFRS, which have a significant impact on the financial reports and estimates made that could involve significant adjustments to subsequent years' financial reports, are described in greater detail on page 49.

The accounting principles specified below for the Group have been applied consistently during all periods presented in the Group's financial reports, unless otherwise stated. The Group's accounting principles have been applied consistently in regards to reporting and consolidation of the Parent Company and the subsidiaries.

REVISED ACCOUNTING PRINCIPLES

The following new and changed standards and interpretations were applied in preparing the 2007 financial reports:

IFRS 7 Financial instruments: Disclosures and related changes in IAS 1 Presentation of Financial Statements place demands on extensive disclosures about the significance of financial instruments for the company's financial position and earnings and qualitative and quantitative disclosures about the character and scope of risks. IFRS 7 and related changes in IAS 1 have resulted in additional information in the Group's financial reports for 2007 with regard to the Group's financial goals and capital management.

The standard has not caused any changes in accounting principles, but only changes in the information requiements regarding financial instruments.

NEW IFRS AND INTERPRETATIONS NOT YET APPLIED

A number of new standards, changes in standards and interpretations become effective as of fiscal year 2008 and have not been applied in preparing these financial reports.

SEGMENT REPORTING

A segment is an identifiable part of a Group, for accounting purposes, that either offers products or services (business segment), or goods or services within a certain economic area (geographic area), which is exposed to risks and opportunities that differ from other segments. Segment information is submitted in accordance with IAS 14, for the Group only.

The Group's internal reporting system is based on follow up of returns from the Group's products and therefore business segments are its primary segment-reporting format. The company's revenue areas – licenses and support – are heavily interdependent and share the same customer base.

They are exposed to similar risks and opportunities, which means that separate business segments cannot be identified for accounting purposes. The company therefore believes that the activity consists of one business segment.

CLASSIFICATION, ETC.

Fixed assets and long-term liabilities in the Parent Company and Group consist essentially of amounts that are expected to be recovered or paid for more than twelve months after the balance sheet date. Current assets and current liabilities in the Parent Company and Group consist essentially only of amounts that the company expects to recover or receive payment for within twelve months from the balance sheet date.

CONSOLIDATION PRINCIPLES

Subsidiaries

Subsidiaries are companies that are under a controlling influence from RaySearch Laboratories. Controlling influence means, directly or indirectly, a right to formulate a company's financial and operational strategies for the purpose of achieving economic benefits. When determining whether controlling influence exists, other securities than shares, that can immediately be used to obtain shares shall also be considered.

The Group includes Parent Company RaySearch Laboratories AB (publ), corporate registration number 556322-6157, which owns 90.8 percent of the capital and 49.7 percent of the voting rights in RayIncentive AB, whose only function is to own the shares set aside to cover the outstanding employee options program.

Consolidation of special-purpose entities

Special-purpose entities (SPE) are included in the consolidated accounts when the economic consequences of business connections between a group company and a SPE indicate that the Group company exerts a controlling influence over a SPE. When determining whether a SPE exerts a controlling influence, consideration is given to whether operations in the SPE are conducted in a predetermined manner. RaySearch Laboratories owns 90.8 percent of the capital and 49.7 percent of the votes in RayIncentive. RaySearch Laboratories has control over the company and no minority stakes are reported. Any eventual dividend from RayIncentive shall, in its entirely, go to RaySearch Laboratories. These circumstances mean that RayIncentive is considered to be a SPE.

RayIncentive's sole function is to own shares in RaySearch Laboratories on which options have been issued. RayIncentive is accounted for in accordance with the acquisition method. The method means that acquisition of a

subsidiary is viewed as a transaction through which the Group indirectly acquires the subsidiary's assets and assumes its liabilities and contingencies. The consolidated acquisition value is determined through an acquisition analysis in conjunction with the acquisition of the operation. In the analysis, the acquisition value is determined for the shares or operations, as well as the actual value of the acquired identifiable assets and assumed liabilities and contingencies. The difference between acquisition value for subsidiary shares and the actual value of acquired assets, assumed liabilities and contingencies constitutes consolidated goodwill, or negative goodwill.

Elimination of transactions between Group companies in consolidation

Receivables and liabilities, and revenues or costs and unrealized gains and losses arising from intra-Group transactions are eliminated in their entirety in the consolidated accounts.

FOREIGN CURRENCY

Transactions in foreign currency

Transactions in foreign currency are translated to the functional currency at the exchange rate prevailing on the transaction day. Monetary assets and liabilities in foreign currency are recalculated to the functional currency at the exchange rate on the closing day. Exchange rate differences arising in translation are reported in the income statement. Non-monetary assets and liabilities that are reported at historic acquisition value are translated at the exchange rate on the transaction date. Non-monetary assets and liabilities accounted for at their actual value are translated to the functional currency at the exchange rate prevailing on the valuation date of their fair actual value. Exchange rate differences are reported in the same manner as other value changes related to assets or liabilities.

REVENUE

Licenses and support sales

Revenue is recognized in the income statement when it is likely that future economic benefits will accrue to the company and that these benefits can be reliably calculated. Revenues are reported at the actual value of what was received or will be received with deduction for discounts granted.

The Group reports its license revenue when software is licensed to the customer and the rights to use the software are transferred to the customer. Revenue from support sales is reported monthly, based on net sales.

OPERATING EXPENSES AND FINANCIAL INCOME AND EXPENSES Payments relating to operational leases

Payments relating to operational leasing agreements are accounted for in the income statement straight-line over the leasing period. Benefits received in conjunction with signing a contract are reported as a part of the total leasing cost in the income statement.

Government contributions

The company has received a grant from the EU through Karolinska Institutet for a research project and from the Science Council regarding two industrial doctorates. The contributions are reported net against research and development costs. The contributions received do not total any signficant amount.

Financial income and expenses

Financial income and expenses consist of interest income on bank balances and receivables and interest-bearing securities, interest expenses on loans, dividend income, exchange rate differences, unrealized and realized gains on financial investments.

Interest income on receivables and interest expenses on liabilities are calculated by applying the effective interest method. Effective interest is the interest that makes the current value of all future deposits and payments during the fixed interest term the same as the reported value of the receivable or liability. The Group and the Parent Company do not capitalize the interest in asset acquisition values.

FINANCIAL INSTRUMENTS

Financial instruments are valued and accounted for in the Group in accordance with the regulations in IAS 39.

Financial instruments accounted for in the balance sheet include, on the assets side, cash and cash equivalents, accounts receivable and loan receivables. Among liabilities and shareholders' equity are accounts payable, issued debt and equity instruments as well as loan liabilities.

Financial instruments are reported initially at the acquisition value corresponding to the instrument's fair value with addition of transaction costs for all financial instruments except when they are part of the category known as financial assets reported at fair value in the income statement excluding transaction costs. Subsequent reporting is based on how they are classified as below.

A financial asset or financial liability is recognized in the balance sheet when the company is bound by the instrument's terms. Accounts receivable are recognized in the balance sheet when the invoice is sent. Liabilities are recognized when the counterparty has performed and there is a contractual obligation to pay, even though the invoice has not yet been received Accounts payable are recognized when the invoice is received.

A financial asset is derecognized from the balance sheet when the rights of the contract are realized, expire or the company loses control over them. The same applies for components of a financial asset. A financial liability is derecognized from the balance sheet when the obligation in the contract is fulfilled or in some other manner is extinguished. The same applies for components of a financial liability.

The fair value of listed financial assets correspond to the listed bid price on the closing date. At each reporting date, the company tests to determine if there is any objective indication that a financial asset or a group of financial assets need to be impaired.

IAS 39 classifies financial instruments in categories. The classification depends on the intention behind the acquisition of the financial instrument. Company management determines the classification at the original time of acquisition. The following categories are held by the company:

Loan receivables and accounts receivable

"Loan receivables and accounts receivable" are financial assets that are not derivatives with fixed payments or payments that can be determined and which are not listed on an active market. The receivables arise when the company provides money, goods and services directly to the debtor without the intent to be sold immediately or in the short term. The category also includes acquired receivables.

Financial assets valued at fair value in the income statement This category includes the financial assets that are current investments equivalent to cash and cash equivalents.

Other financial liabilities

Comprises financial liabilities not held for trading. The Group's accounts payable are included in this category.

Cash and cash equivalents

Cash and cash equivalents comprise cash funds and balances at banks and comparable institutions that are immediately available as well as short-term liquid investments with a duration from the date of acquisition of less than three months, which are subject to only a negligible risk of value fluctuations. Changes in value are reported in net financial items. Bank balances are reported in the category loan receivables and accounts receivable. Current investments are reported in the category financial assets valued at fair value in the income statement.

Long-term receivables and other receivables

Long-term receivables and other receivables arise when the company provides money without the intention of trading in receivable rights. If the expected duration of holding is longer than one year, they are long-term re-

ceivables, and if it is shorter they are other receivables. These receivables are in the category loan receivables and accounts receivable.

Accounts receivable

Accounts receivable are in the category loan receivables and accounts receivable. Accounts receivable are reported at the amount expected to be received after deduction for doubtful receivables that are assessed individually. The expected duration of accounts receivables is short, therefore the value is reported at nominal amount without discounting. Impairment of accounts receivables is reported in operating expenses.

Liabilities

Liabilities are classified as other financial liabilities, which means that they are initially reported at the amount received after deduction for transaction costs. After the date of acquisition, the loan is valued at accrued acquisition value in accordance with the effective interest method. Long-term liabilities have an expected duration of more than one year, while current liabilities have a duration of up to and including one year. Option premiums received are recognized as liabilities until the options are exercised.

Accounts payable

Accounts payable are classified in the category other financial liabilities. Accounts payable have short expected duration and are valued without discounting at the nominal amount.

TANGIBLE FIXED ASSETS

Assets owned

Tangible fixed assets are reported as assets in the balance sheet if it is probable that the future economic benefits will accrue to the company and that the acquisition value can be calculated in a reliable manner.

Tangible fixed assets are reported in the consolidated accounts at acquisition value after deduction for accumulated depreciation and any impairments. The acquisition value includes the purchase price and costs directly attributable to the asset to deliver it in place and in condition to be used as intended in the acquisition. The accounting principles for impairment are presented below.

Tangible fixed assets comprising components with varying useful lives are treated as separate components of tangible fixed assets. The reported value of a tangible fixed asset is derecognized from the balance sheet at scrappage or divestment or when no future economic benefit is expected from use or scrappage/divesting of the asset. The gain or loss arising from the retirement or disposal of an asset is the difference between the selling price and the asset's reported value less direct selling costs. Gains and losses are reported as other operating income/expenses.

Leased assets

IAS 17 applies for leased assets. Leasing is classified in the consolidated accounts as financial or operating leasing. A financial lease is a lease that transfers substantially all the risks and rewards incident of ownership of an asset to the lessee. If this is not the case, it is operational leasing.

Operational leasing means that the leasing fee is expensed over the term based on use, which can differ from what is paid de facto as leasing fee during the year.

In accordance with these rules, all leasing in the Group is reported as operational leasing.

Depreciation principles

Depreciation is based on the original acquisition value less any residual value. Depreciation is straight-line over the estimated useful life of the asset.

Calculated useful lives:

computers

- equipment, tools, fixtures and fittings

3-5 years 5 years

INTANGIBLE FIXED ASSETS

Costs for research and development

Expenditure for research activities that relate to the obtaining of new scientific or technical knowledge is recognized as an expense as incurred.

Expenditures for development activities, whereby the research results or other knowledge is applied to accomplish new or improved products or processes, are reported as an intangible asset in the balance sheet, provided the product or process is technically and commercially feasible and the company has sufficient resources to complete development, and is subsequently able to use or sell the intangible asset. The reported value includes mainly direct and indirect expenses, personnel costs and cost of premises. Other expenses for development are charged to income as incurred. In the balance sheet, capitalized development expenditure is stated at cost less accumulated amortization and any impairment losses. Deferred taxes have been taken into account.

Other intangible assets

Other intangible assets acquired by the company are reported at acquisition value less accumulated amortization and any impairment losses.

Expenditure for internally generated goodwill and brands is reported in the income statement when the cost is incurred.

Amortization

Amortization is charged to the income statement on a straight-line basis over the estimated useful lives of intangible assets. Capitalized development expenditures on which amortization has not commenced, are tested for impairment annually or as soon as there is an indication that the asset may be impaired. Intangible assets are amortized as from the date the asset is available for use. The following amortization periods are used:

- Capitalized development costs

5 years

- Software

3-5 years

The reported value of the Group's assets is tested on each balance sheet date to determine whether there is any indication that impairment would be necessary. If any such indication is found, the recoverable amount of the asset is calculated as the higher of the useful value and the net realizable value. An impairment loss is recognized if the recoverable value is less than the reported value. The recoverable value is determined by discounting the estimated future cash flow from the cash-generating units.

SHARE CAPITAL

Treasury stock

Holdings of own shares (treasury stock) and other shareholders' equity instruments are reported as a reduction of shareholders' equity. Acquisition of such instruments is reported as a deduction from shareholders' equity. Proceeds from the divestment of shareholders' equity instruments are reported as an increase in shareholders' equity. Any transaction costs are charged directly against shareholders' equity.

Dividends

Dividends are recognized as a liability after approval of the dividend by the Annual General Meeting.

EMPLOYEE BENEFITS

Defined-contribution plans

Plans in which the company's commitment is limited to the fees the company has undertaken to pay are classified as defined-contribution plans. In such cases, the size of the employees pension depends on the fees the company pays into the plan or to an insurance company and the capital return the fees generate. Accordingly, it is the employee who carries the actuarial risks (that the remuneration will be lower than expected) and the investment risk (that the invested assets will be adequate to provide the

The residual value and useful life are assessed annually.

expected remuneration). The company's commitments to the plans are recognized as an expense in the income statement as incurred.

The Group has only defined-contribution pensions. The Group's obligation for each period is the amount that the Group shall contribute for the specific period.

Provisions for terminations

A provision is reported in conjunction with the termination of employees only when the company is committed to terminating the employment before the normal date.

Share-based payments

The company's options program is such that on each occasion employees have paid a market price for the options. The market price was determined in accordance with the Black & Scholes model.

TAXES

Income tax comprises current and deferred tax. Income tax is recognized in the income statement except when it relates to items recognized directly in equity, in which case it is recognized in equity.

Current tax is the expected tax payable on the taxable income for the year, using tax rates enacted or substantially enacted at the balance sheet date, and any adjustment to tax payable in respect of previous years.

Deferred tax is calculated using the balance sheet liability method, providing for temporary differences between the carrying values of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. The temporary differences relating to investments in subsidiaries and associated companies are not taken into account when they will probably not be reversed in the foreseeable future. The amount of deferred tax provided is based on the expected manner of realization or settlement of the reported value of assets and liabilities. Deferred tax is computed using tax rates enacted or substantially enacted at the balance sheet date.

A deferred tax asset relating to deductible temporary differences and net operating losses is recognized only to the extent that it is probable that future taxable profits will be available, against which the asset can be utilized. The value of deferred tax assets is reduced when it is no longer probable that the related tax benefit will be realized.

Any additional income taxes that arise from the distribution of dividends are recognized at the same time as the liability to pay the related dividend arises in the distributing company.

CONTINGENT LIABILITIES

A contingent liability is reported when there is a possible obligation that arises from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events or when there is a present obligation that can not be reported as a liability because it is not probable that an outflow of resources will be required.

PARENT COMPANY'S ACCOUNTING PRINCIPLES

The Parent Company has prepared its annual report in accordance with the Annual Accounts Act (1995:1554) and the standard, RR32:06 Reporting by a legal entity, issued by the Swedish Financial Accounting Standards Council. Under RR32:06, the Parent Company in its annual report shall apply all the IFRS and interpretations approved by the EU to the extent possible within the framework of the Annual Accounts Act, also considering the relation between financial reporting and taxation. The recommendation stated which exceptions from and additions to IFRS that should be made. The differences between the accounting policies applied in the consolidated financial statements and those applied by the Parent Company are presented below. The accounting principles presented below for the Parent Company have been applied consistently in all periods presented in the Parent Company financial statements.

REVENUES

Dividends

Dividend revenues are recognized when the right to receive the payment is deemed certain.

Research and development

All expenditures for research and development are recognized in the Parent Company's income statement. A similar reporting is permitted in accordance with RR32:06, point 67. In the consolidated accounting, these expenditures for development are recognized as assets in accordance with IAS 38.

Taxes

Untaxed reserves in the Parent Company are reported including deferred tax liabilities. In the consolidated accounting, untaxed reserves are divided into deferred tax liabilities and shareholders' equity.

Group contributions and shareholders' contributions in legal entity

The company reports Group contributions and shareholders' contributions in accordance with the pronouncement of the Swedish Financial Accounting Standard Council's Emerging Issues Task Force. Shareholders' contributions are reported directly in the recipient's equity whereas the contributor capitalizes the contribution with shares and participations, to the extent that the recognition of an impairment loss is not required. Group contributions are reported in accordance with their financial substance. This means that Group contributions paid to minimize the Group's overall income tax burden are reported directly in retained earnings net of the related tax effect.

Group contributions that are equivalent to a dividend are reported as dividends. This means that Group contributions received and their actual tax effect are reported in the income statement. Group contributions paid and the actual tax effect is reported directly in retained earnings.

Group contributions that are equivalent to shareholder contributions are reported, taking into account the current tax effect, at the recipient against retained earnings. The contributor reports Group contributions and its current tax effect as investments in participations in Group companies, when recognition of an impairment loss is not required.

RISKS AND RISK MANAGEMENT

Financial Risk Management

The Group is exposed to various types of financial risks through its operations. The term "financial risks" refers to fluctuations in the company's earnings and cash flow as a result of changes in exchange rates, interest rates, refinancing, and credit risks. The Board has formulated the Group's financial risk management policy, which serves as a framework of guidelines and regulations in the form of risk mandates and limits for financial activities.

Foreign-exchange risk

Foreign-exchange risk refers to the risk of fluctuations in the value of a financial instrument because of changes in exchange rates. Foreign-exchange risk are related to changes in expected and contracted cash flow (transaction exposure), receivables and liabilities in foreign currency (translation exposure), and financial exposure in the form of currency risk in cash flow and investments. To date, the Group has mainly had payments in USD and EUR, which means a foreign exchange risk. No hedging has been done.

Interest-rate risk

Interest-rate risk refers to the effect on earnings that a change in interest rates would cause. Since RaySearch does not have any interest-bearing loans, the interest risk is limited to short-term investments with short fixed interest periods.

Financing risk

Financing risk refers to the risk that the company would need to borrow funds in a strained credit market. The Group's operations are financed with equity and are currently not exposed to any financing risk.

Credit risk

The Group's credit risk consists of credit risk for commercial receivables from Philips and Nucletron, which to date are the company's two commercial partners with which products have been launched. No loan losses have occurred to date, and the Group considers that its credit risk will continue to be very low. See Note 27 for description of the significance of financial risks.

Operational risks

As a result of its operations, the Group is exposed to various operational risks, including the following:

Dependence on key personnel

RaySearch's future progress is partly dependent on the continuation in the organization of a number of key personnel with specific skills. The loss of one or a number of these key people could result in an adverse impact on the Group operations. Part of the personnel has participated in incentive programs and currently hold shares or options in RaySearch.

Competition

RaySearch's competitors are primarily the in-house development departments at potential commercial partners, such as Siemens. These large medical-technology companies have always elected to develop software within their own organization or outsource development work. The more advanced the solutions achieved by RaySearch, the greater the probability that major companies will refrain from proprietary development and instead outsource the task to RaySearch.

Strategic cooperation

RaySearch currently pursues cooperation with its business partners Philips, Varian, Nucletron, IBA Dosimetry and TomoTherapy. RaySearch also has a number of cooperative research projects. If RaySearch were to lose one or a number of business partners, it could have a major effect on corporate sales, earnings and financial position. RaySearch holds continuous discussions with a number of partners regarding further cooperation.

Alternative treatment methods

Of the three primary forms of cancer treatment – surgery, radiation therapy and chemotherapy – radiation therapy is the form that has grown most for curative groups over the past twenty years. RaySearch believes that radiation therapy will continue to be a key treatment form in the future.

US insurance system

Any decision by the US insurance system not to compensate clinics for treatment in adaptive radiation therapy would adversely impact on RaySearch.

Official approval

Medical technology products require official approval. RaySearch would be adversely affected if any product scheduled to be sold by its business partners failed to receive official approval.

Product development

RaySearch develops highly advanced products, in which RaySearch assumes risk in the development effort through to launch, which could result in higher costs than estimated. This is offset through continuous project follow-up and quality assurance.

Fair value

Fair value and reported value are synonymous in the Group.

Critical estimates and assessments

Executive management has discussed developments, selection and information regarding the Group's critical accounting principles and estimates, as well as the applications of these principles and estimates.

Critical assessments in the application of the Group's accounting principles Certain critical estimates for accounting purposes made in the application of the Group's accounting principles are described below.

Significant sources of uncertainty in estimates

Capitalized development expenses

In calculating the cash-generating units' value for the assessment of any impairment requirements for capitalized development expenses, certain assumptions regarding future circumstances and parameter estimates have been made, as presented in Note 16.

Exposure to foreign currencies

Movements in exchange rates may have a relatively large impact on the company in general. Note 27 provides a detailed analysis of the exposure to foreign currencies and the risks associated with changes in exchange rates.

Income recognition

The allocation of license sales and support sales over the various periods is crucial for income recognition and for ensuring that allocation is done in a uniform manner over time.

Information regarding the Parent Company

RaySearch Laboratories AB (publ) is a Swedish-registered limited liability company with its registered office in Stockholm. The Parent Company's shares are listed on the OMX Nordic Exchange in the Small Cap segment. The address of the head office is Sveavägen 25, SE-111 34 Stockholm.

NOTE 2 / SEGMENT REPORTING

Operating segments

The Group's operations comprise a single operating segment. Operating segments represent the Group's primary basis for subdivision.

Geographic areas

Geographic areas represent the Group's secondary basis of subdivision. The information presented regarding the segment's revenue pertains to the geographic areas grouped on the basis of the location of the end customers.

	North A	North America		a	Europe rest of v	
%	2007	2006	2007	2006	2007	2006
Sales	56	60	14	9	30	31
Assets	-	_	-	-	100	100
Investments	-	_	-	-	100	100

NOTE 3 / INCOME DISTRIBUTION

	Group 2007	Group 2006	Parent Company 2007	Parent Company 2006
Revenue from licenses sold	45,126	52,870	45,126	52,870
Revenue from support services	19,579	16,106	19,579	16,106
	64.705	68,976	64.705	68,976

NOTE 4 / EMPLOYEES AND STAFF COSTS

The Group company Raylncentive AB had no employees or personnel costs.

Costs for remunerations

Parent Company and Group	2007	2006
Salaries and remunerations, etc.	20, 621	16,499
Pension costs, defined contribution	3,905	3,084
Social security expenses	6,931	5,157
	31.457	24.740

Average number of employees

The Parent Company had an average of 37 (28) employees, with 26 (18) men and 11 (10) women.

Gender distribution in management

	Dec. 31, 2007	Dec. 31, 2006
%	Percentage of women	Percentage of women
Parent Company		
Board of Directors	-	-
Other senior executives	-	-
Group total		
Board of Directors	-	-
Other senior executives	_	-

Salaries and other remuneration distributed between senior executives and other employees as well as social security expenses in the Parent Company and Group

	2007	2007		
	Senior executives and Board (9)	Other employees	Senior executives and Board (9)	Other employees
Salaries and other remuneration (of which, bonus)	7,222 (859)	13,399 <i>(397</i>)	6,767 (946)	9,732 (390)
Social security expenses (of which, pension costs)	3,812 (1,388)	7,024 (2,517)	3,386 (1,13 <i>5</i>)	4,855 (1,948)
Parent Company, total	11,034	20,423	10,153	14,587

Salaries and remunerations pertain solely to personnel in Sweden

Senior executives' remunerations in the Parent Company and Group

2007	Basic salary, Board fees	Variable remuneration	Other benefits	Pension costs	Total
Board Chairman Erik Hedlund	323	_	_	-	323
Board member Carl Filip Bergendal	108	-	-	-	108
Board member Hans Wigzell	108	_	_	_	108
Board deputy Thomas Pousette ¹⁾	-	_	_	-	-
President Johan Löf	2,449	570	250	369	3 638
Other senior executives (5) ²⁾	3,377	289	5	1,019	4 690
Total	6,365	859	255	1,388	8 867

	Basic salary,	Variable	Other	Pension	
2006	Board fees	remuneration	benefits	costs	Total
Board Chairman Erik Hedlund	313	_	_	_	313
Board member Carl Filip Bergendal	110	-	_	-	110
Board member Hans Wigzell	110	-	-	-	110
Board member Claes-Göran Fridh	60	-	-	-	60
Board deputy Thomas Pousette ¹⁾	-	-	-	-	-
President Johan Löf	2,183	708	201	316	3 408
Other senior executives (4)	3,045	238	2	819	4 104
Total	5,821	946	203	1,135	8 105

No financial instruments or other remuneration was distributed.

1) Advokatfirman Lindhs DLA Nordic KB, in which Board deputy Thomas Pousette is a partner, received SEK 1,027,000 (1,612,000) in legal fees.

Variable remuneration

Variable remuneration paid to the President is based on the Group's earnings and amounts to 2 percent of earnings before tax, though it may not exceed six months' pay. Variable remuneration to other senior executives is based on outcome in relation to individual targets and normally amounts to a maximum of one month's pay. Variable remuneration is pensionable.

Pensions

All pension undertakings are defined-contribution plans. Retirement age for the President is 65 and the pension premium is equivalent to the Swedish ITP plan. The pension undertaking for other senior executives shall be equivalent to the Swedish ITP plan. The pension age is 65 for all other senior executives.

Severance pay

If the President chooses to terminate employment, his term of notice is six months; if the employer terminates employment, the term of notice is twelve months. In either case, the President is not entitled to any special severance pay, but in both cases, the President receives salary during the term of notice. The company and other senior executives have a mutual term of notice of three months during which salary is paid. Members of the Board of Directors do not receive any severance pay.

Decision process

The decision process regarding remuneration and benefits is described in greater detail in the Board of Directors' report.

See Note 6 for share-related remuneration.

Illness absenteeism Parent Company

	2007	2006
Illness absenteeism as a percentage of ordinary work time	1.3%	1.2%
Percentage of illness absenteeism pertaining to long-term, illness absenteeism of 60 days or longer	-	-
Illness absenteeism as percentage of each group's ordinary work time		
Illness absenteeism by gender:		
Men	0.8%	0.4%
Women	2.6%	2.9%
Illness absenteeism by age category		
29 and younger	1.3%	_1)
30–49	1.3%	1.5%
50 or older	_2)	_2)

¹⁾ The category of age 29 and younger had in the year 2006 fewer than 10 employees and thus information regarding this category is not presented.

2) There are no employees in the category of 50 years and over.

²⁾ Four persons at beginning of the year, one newly employed in August 2007.

NOTE 5 / AUDITORS' FEES AND COMPENSATION FOR EXPENSES

	2007	2006	2005
Group	2007	2000	
KPMG			
Auditing assignments	599	610	850
Other assignments, consulting	50	165	132
Parent Company			
KPMG			
Auditing assignments	584	593	485
Other assignments, consulting	50	165	23

Auditing assignments refer to the examination of the annual report and accounting as well as the administration by the Board and President as well as other working tasks that are the responsibility of the company's auditors to

conduct or other matters arising from observations during such examination or implementation of such other working tasks. Everything else is other assignments.

NOTE 6 / EMPLOYEE REMUNERATION

Share-based payments

RaySearch offers a number of option programs to facilitate its ability to attract, motivate, and retain personnel. The subsidiary RayIncentive AB owns shares in RaySearch Laboratories to cover options issued and future options programs. RayIncentive's shareholding in RaySearch Laboratories at Dec. 31, 2007 was 149,876. Of these, 115,500 pertain to RayIncentive's Class B

shares in RaySearch Laboratories' existing options program. Employees of RaySearch and a RaySearch Board member own these options. The company's President has no options in RaySearch. When these persons acquired options in RaySearch, it was done at a market price calculated according to the Black and Scholes model.

Options Program, RaySearch Laboratories

	Exercise period	Shares include	Exercise price (SEK)
2004:1	Dec 31, 2008-Dec 31, 2009	115,500	81.40

No changes occurred in option holdings in 2007.

NOTE 7 / OPERATING EXPENSES DISTRIBUTED BY TYPE OF COSTS

	Group 2007	Group 2006	Parent Company 2007	Parent Company 2006
Costs of goods sold	-863	-849	-863	-849
Personnel expenses	-14,534	-14,680	-31,513	-25,790
Depreciation	-6,862	-5,975	-1,178	-989
Exchange-rate losses	-398	-1,571	-398	-1,571
Other operating expenses	-16,720	-12,793	-22,247	-17,013
	-39,377	-35,868	-56,199	-46,212

NOTE 8 / OTHER OPERATING INCOME

	Group 2007	Group 2006	Parent Company 2007	Parent Company 2006
Exchange-rate gains on operating receivables/liabilities	453	432	453	432
	453	432	453	432

NOTE 9 / OTHER OPERATING EXPENSES

	Group 2007	Group 2006	Parent Company 2007	Parent Company 2006
Exchange rate losses on operating receivables/liabilities	-398	-1 571	-398	-1 571
	-398	-1 571	-398	-1 571

NOTE 10 / DEPRECIATION AND AMORTIZATION OF TANGIBLE AND INTANGIBLE FIXED ASSETS

	Group 2007	Group 2006	Parent Company 2007	Parent Company 2006
Intangible fixed assets				
Amortization according to plan and function				
Administrative expenses	-106	-91	-106	-91
Research and development	-6,576	-5,709	-267	-189
	-6,682	-5,800	-373	-280
Tangible fixed assets				
Depreciation according to plan and function				
Administrative expenses	-173	-157	-334	-296
Research and development	-9	-18	-471	-413
	-182	-175	-805	-709
Total amortization and depreciation	-6,864	-5,975	-1,1 <i>7</i> 8	-989

NOTE 11 / OPERATIONAL LEASING

	Group 2007	Group 2006	Parent Company 2007	Parent Company 2006
Leasing agreements in which the company is the lessee				
Rent of premises	4,542	4,080	4,542	4,080
Other leasing	571	403	571	403
Total lease costs	5,113	4,483	5,113	4,483
Contractual future lease fees for leases that expire:				
Within one year	5,686	4,964	5,686	4,964
Later than one but within five years	7,679	12,901	7,679	12,901
Later than five years	-	-	-	-
	13,365	17,865	13,365	17,865

None of the leasing fees are variable.

NOTE 12 / INTEREST INCOME AND INTEREST EXPENSES ON FINANCIAL INSTRUMENTS

	Group 2007	Group 2006	Parent Company 2007	Parent Company 2006
Interest income on assets valued at fair value in income statement	1,994	1,080	1,568	793
Interest income on accounts receivable and loan receivables	459	220	406	207
	2,453	1,300	1,974	1,000
Interest expenses on other financial liabilities	-22	-19	-22	-19
	-22	-19	-22	-19
Net	2,431	1,281	1,952	981
NOTE 13 / APPROPRIATIONS				
			2007	2006
Tax allocation reserve, year's allocation			-3,288	-6,167
Tax allocation reserve, year's reversals			2,411	-

-224 -1,101

-6,167

NOTE 14 / TAX ON PROFIT FOR THE YEAR

Accumulated depreciation for tax purposes

Group		
	2007	2006
Current tax expense		
Tax liability for the period	-3,091	-5,252
Adjustment of tax attributable to prior years	-137	-5
	-3,228	-5,257
Deferred tax liability		
Deferred tax for temporary differences		
capitalized development costs	-4,726	-2,909
loss carry-forwards	_	11,252
changes in appropriations	-308	-1,727
	-5,034	6,616
Total tax expense reported for Group	-8,262	1,359

Reconciliation of effective tax	20	07	20	06
Group	Percent	Amount	Percent	Amount
Reported profit/loss before tax		28,041		34,860
Swedish tax rate	28.0%	<i>–7</i> ,852	28.0%	-9,761
Other non-deductible income	-0.1%	37	0.0%	11
Standard interest on tax allocation reserve	0.5%	-135	0.2%	-84
Tax pertaining to prior years	0.5%	-137	0.0%	-5
Deductible costs not included in the reported profit	0.0%	-	-0.3%	94
Other non-deductible costs	0.6%	-175	0.4%	-148
Capitalization of deferred tax on loss carry-forwards	0.0%	-	-32.3%	11,252
Reported effective tax	29.5%	-8,262	-3.9%	1,359

Company

Other non-deductible costs

Reported effective tax

Capitalization of deferred tax on loss carry-forwards

Current tax expense	2007	2006		
Tax expense for the period	-2,972	-5,180		
Adjustment of tax attributable to prior years	-2	- 5		
	-2,974	-5,185		
Deferred tax income				
Capitalization of deferred tax on loss carry-forwards	_	11,252		
	-	11,252		
Total tax expense reported for Parent Company	-2,974	6,067		
Reconciliation of effective tax	20	07	20	06
Parent Company	Percent	Amount	Percent	Amount
Reported profit before tax		9,639		18,049
Swedish tax rate	28.0%	-2,699	28.0%	-5,054
Non-deductible income	-0.4%	37	-0.1%	11
Standard interest on tax allocation reserve	1.4%	-135	0.5%	-84
Tax pertaining to prior years	0.0%	-2	0.0%	-4
Deductible costs not included in the reported profit	0.0%	_	-0.5%	94

1.9%

0.0%

30.9%

-175

-2,974

NOTE 15 / DIVIDEND PER SHARE, EARNINGS PER SHARE AND NUMBER OF SHARES

	2007	2006
Dividend per share ^{1],} SEK	0.50	none
1) Proposed 2007 dividend.		
Number of shares used in calculating earnings per share		
Weighted average number of shares before dilution	11,427,591	11,427,591
Effect of options outstanding	68,704	55,697
	11,496,295	11,483,288
Weighted average number of shares after dilution		
	1.72	3.15
Earnings per share after dilution		
	19,779	36,219
Profit for the year attributable to Parent Company shareholders (before and after dilution)		

-148

11,252

6,067

0.8%

-62.3%

-33.6%

NOTE 16 / CAPITALIZED DEVELOPMENT EXPENSES

	Group Dec. 31. 2007	Group Dec. 31. 2006
Capitalized development expenses		
Accumulated acquisition value		
Opening balance	59,204	43,114
Internally developed assets	23,448	16,090
Closing balance	82,652	59,204
Accumulated depreciation/amortization according to plan		
Opening balance	-14,507	-8,807
Depreciation/amortization according to plan for the year	-6,571	-5,700
Closing balance	-21,078	-14,507
Closing carrying amount	61,574	44,697

Assessment of the balance items are based on the cash-generating unit's value in use. The future estimate cash flows have been calculated at present value at a rate of 18 (18) percent before tax, which has been calculated as the company's weighted average cost of capital (WACC). The value in use

of all products exceeds the carrying amount. The risk-free interest rate was calculated at 4 (4) percent. Even with a significant change in variables, there would still be no impairment requirement.

NOTE 17 / SOFTWARE

	Group	Group	Parent Company	Parent Company
	Dec. 31. 2007	Dec. 31. 2006	Dec. 31. 2007	Dec. 31. 2006
Software				
Accumulated acquisition value				
Opening balance	1,981	1,570	1,981	-
Opening balance, merged companies	-	-	-	1,570
New acquisitions	837	411	837	411
Closing balance	2,818	1,981	2,818	1,981
Accumulated depreciation according to plan				
Opening balance	-1,281	-1,001	-1,281	-
Opening balance, merged companies	-	-	-	-1,001
Depreciation according to plan for the year ¹⁾	-373	-280	-373	-280
Closing balance	-1,654	-1,281	-1,654	-1,281
Closing carrying amount	1,164	700	1,164	700

¹⁾ Of the Group's depreciation for the year, SEK 262 (180) was capitalized.

NOTE 18 / TANGIBLE FIXED ASSETS

	Group	Group	Parent Company	Parent Company
Equipment, tools, fixtures and fittings	Dec. 31. 2007	Dec. 31. 2006	Dec. 31. 2007	Dec. 31. 2006
Accumulated acquisition value				
Opening balance	5,679	5,226	5,679	-
Opening balance, merged companies	-	-	-	5,226
New acquisitions	2,160	496	2,160	496
Divestments and scrappage	-106	-43	-106	-43
Closing balance	7,733	5,679	7,733	5,679
Accumulated depreciation				
Opening balance	-4,700	-4,026	-4,700	-
Opening balance, merged companies	_	_	_	-4,026
Divestments and scrappage	105	43	105	43
Depreciation according to plan for the year 1)	-805	<i>–717</i>	-805	<i>-717</i>
Closing balance	-5,400	-4,700	-5,400	-4,700
Closing carrying amount	2,333	979	2,333	979
1) Of the Group's depreciation for the year, SEK 624 (522) was capitalized.				

NOTE 19 / PARTICIPATIONS IN GROUP COMPANIES

Parent Company	Dec. 31, 2007	Dec. 31, 2006
Accumulated acquisition value		
Opening balance	2,160	233,703
Opening balance, merged companies	-	2,160
Merger	-	-233,703
Carrying amount at end of period	2,160	2,160

Specification of Parent Company's holdings of participations in Group companies

	Number/	Adjusted equity/	
Subsidiary/Corp. reg. no. /Reg. office	participations % 1)	Profit for the year 2)	Carrying amount
RayIncentive AB, 556635-8247, Stockholm	9,080 / 90.8	12,798 / 277	2,160
			2.160

Ownership share of capital, voting rights total 49.7%.
 Adjusted equity refers to the share of the company's equity, incl. the equity share of untaxed reserves.
 Profit for the year refers to the ownership share of the company's earnings after tax, incl. the capital share in the change for the year in untaxed reserves.

NOTE 20 / ACCOUNTS RECEIVABLE

No bad debt losses and no impairments related to accounts receivable were reported during the year.

The company's credit risk comprises risk related to commercial receivables due from Philips and Nucletron, which to date have been the company's two commercial partners with which products have been launched. The company estimates that the credit risk will remain very low and the credit quality is high.

Age analysis	
Not past due	9,824
Past due 0–30 days	1,319
Past due more than 30 days	-
Total	11,143

The past due receivables were paid after the balance sheet date.

NOTE 21 / PREPAID EXPENSES AND ACCRUED INCOME

	Group Dec. 31, 2007	Group Dec. 31, 2006	Parent Company Dec. 31, 2007	Parent Company Dec. 31, 2006
Prepaid rent	1,255	1,049	1,255	1,049
Prepaid insurance	504	368	504	368
Accrued interest income	90	_	90	_
Other items	1,032	1,364	1,032	1,364
	2,881	2,781	2 881	2,781

NOTE 22 / CASH AND CASH EQUIVALENTS

	Group Dec. 31, 2007	Group Dec. 31, 2006	Parent Company Dec. 31, 2007	Parent Company Dec. 31, 2006
The following components are included in cash:				
Cash and bank balances	31,461	5,953	30,446	5,417
Current investments equivalent to cash	47,674	60,879	33,771	46,903
	79,135	66,832	64,217	52,320

The above items have been classified as cash and cash equivalents on the basis that:

- They represent insignificant risk for changes in value
- They are easily converted into cash
- They have a lifetime of a maximum 3 months from the acquisition date

NOTE 23 / DEFERRED TAX RECEIVABLES AND TAX LIABILITIES

12,515 4,726 17,241 5,301 308	9,607 2,908 12,515 4,287 1,014
4,726 17,241 5,301	2,908 12,515 4,287
4,726 17,241 5,301	2,908 12,515 4,287
17,241 5,301	12,515 4,287
5,301	4,287
·	·
·	·
308	1,014
5,609	5,301
22,850	17,816
Dec. 31, 2007	Dec. 31, 2006
11,253	-
_	11,253
11,253	11,253
	Dec. 31, 2007 11,253

Valuation is based on the nominal tax rate.

NOTE 24 / UNTAXED RESERVES

Parent Company	Dec. 31, 2007	Dec. 31, 2006
Accumulated depreciation in excess of plan		
Opening balance, January 1	-	-
Depreciation in excess of plan for the year	224	-
Divestments and scrappage	-	-
Closing balance, December 31	224	-
Untaxed reserves		
Allocated at taxation in 2002	-	2,411
Allocated at taxation in 2003	2,491	2,491
Allocated at taxation in 2004	747	747
Allocated at taxation in 2005	1,443	1,443
Allocated at taxation in 2006	5,673	5,673
Allocated at taxation in 2007	6,167	6,167
Allocated at taxation in 2008	3,288	-
	20,033	18,932

NOTE 25 / OTHER LONG-TERM LIABILITIES

Group	Dec. 31, 2007	Dec. 31, 2006
Opening balance	967	967
Closing balance	967	967

The amount, SEK 967 above, pertains to the premiums for the options in RayIncentive and recognized as a liability. No liabilities fall due for payment later than five years from the balance sheet date.

NOTE 26 / ACCRUED EXPENSES AND PREPAID INCOME

	Group Dec. 31, 2007	Group Dec. 31, 2006	Parent Company Dec. 31, 2007	Parent Company Dec. 31, 2006
Social security contributions and vacation costs	2,114	1,254	2,114	1,254
Personnel-related costs	1,259	1,396	1,259	1,396
Auditing expenses	308	242	295	233
Legal expenses	_	42	_	42
Annual report	1,265	1,214	1,265	1,214
Prepaid income	146	235	146	235
Other items	313	765	312	765
	5,405	5.148	5,391	5.139

NOTE 27 / INTEREST- AND EXCHANGE-RATE RISKS

Effective rate of interest and due payment structure

RaySearch's cash and cash equivalents are liquid funds in bank accounts with an effective rate of interest of 3.50 percent as well as interest-bearing securities with a term shorter than three months with an effective rate of interest of 4.38-4.45 percent.

Transaction exposure

Translated to SEK, the Group's transaction exposure is distributed among the following currencies:

Currency	2007	2007		2006	
	Amount	%	Amount	%	
EUR	15,038	24	17,085	25	
USD	48,804	<i>7</i> 6	51,042	75	
	63.842		68,127		

The Group's income statement includes exchange-rate gains and losses in a net amount of SEK 54 (neg: 1,139) in operating profit and SEK 0 (0) in net financial items. Translation exposure was not hedged.

Translation exposure

Net foreign assets translated to SEK in the Group are distributed among the following currencies:

	2007	2007		2006	
Currency	Amount	<u></u> %	Amount	%	
EUR	2,944	26	9,358	52	
USD	8,199	74	8,570	48	
	11.143		17.928		

Sensitivity analysis

The company is dependent on exchange-rate trends for USD and EUR against the SEK, since invoicing to Philips is in USD and invoicing to Nucletron is in EUR. During 2007, revenue from Philips was booked at an average USD/SEK exchange rate of SEK 6.70 compared with SEK 7.31 in 2006. Invoicing of Nucletron during the year was booked at an average EUR/SEK exchange rate of SEK 9.27 compared with SEK 9.14 in 2006. The sensitivity analysis of currency exposure shows that the effect on

operating profit during 2007 of a change in the average USD exchange rate of +/- 10 percent per year results in SEK +/- 4.9 M. The sensitivity analysis shows that the effect of a change in the average EUR exchange rate of +/- 10 percent annually results in SEK +/- 1.5 M.

At December 31, 2007, a general rise in interest rates of 1 percent would increase Group profit before tax by approximately SEK 0.8 M (0.7).

NOTE 28 / VALUATION OF FINANCIAL ASSETS AND LIABILITIES AT FAIR VALUE

Fair value and carrying amount reported in the balance sheet below:	Financial assets value at fair value in the income statement	Accounts and loan receivables	Other financial liabilities	Carrying amount	Faiı value
Group, Dec. 31, 2007					
Accounts receivable		11,143		11,143	11,143
Cash and cash equivalents	47,674	31,461		<i>7</i> 9,135	<i>7</i> 9,135
Total	47,674	42,604		90,278	90,278
Accounts payable			4,577	4,577	4,577
Total			4,577	4,577	4,577
Group, Dec. 31, 2006					
Accounts receivable		17,928		17,928	17,928
Cash and cash equivalents	60,879	5,953		66,832	66,832
Total	60,879	23,881		84,760	84,760
Accounts payable			2,296	2,296	2,296
Total			2,296	2,296	2,296
Parent Company, Dec. 31, 2007					
Accounts receivable Cash and cash equivalents	33, <i>77</i> 1	11,143 30,446		11,143 64,217	11,143 64,217
Total	33,771	41,589		75,360	75,360
Accounts payable			4,577	4,577	4,577
Total			4,577	4,577	4,577
Parent Company, Dec. 31, 2006					
Accounts receivable		17,928		17,928	17,928
Cash and cash equivalents	46,903	5,417		52,320	52,320
Total	46,903	23,345		70,248	70,248
Accounts payable			2,296	2,296	2,296
Total			2,296	2,296	2,296

NOTE 29 / PLEDGED ASSETS AND CONTINGENT LIABILITIES

	Dec. 31. 2007	Dec. 31. 2006
Pledged assets		
Chattel mortgages	5,000	5,000
Total	5,000	5,000
The company has a credit limit on its overdraft facilities of SEK 5,000, which was not utilized in 2006 and 2007.		
Contingent liabilities	none	none

NOTE 30 / TRANSACTIONS WITH CLOSELY RELATED PARTIES

For a description of transactions with senior executives, refer to Note 4. Otherwise there were no transactions with closely related parties. No sales or purchases were undertaken among Group companies.

The consolidated accounting and annual report were prepared in accordance with the international accounting standards referred to in the European Parliament and Council regulation (EC) no. 1606/2002 dated July 19, 2002 and the application of international accounting standards and generally accepted accounting practices and provides a fair view of the Group's and Parent Company's position and earnings. The Board of Directors' and President's report for the Group and Parent Company provides an accurate view of the Group's and Parent Company's operations, financial position and earnings and describes the significant risks and uncertainty factors that the Parent Company and the companies in the Group face.

The annual report and the consolidated accounts, as stated above, were approved for publication by the Board of Directors on March 26, 2008. The consolidated income statement and balance sheet and the Parent Company income statement and balance sheet will be submitted for adoption at the Annual General Meeting on May 22, 2008.

Erik Hedlund Johan Löf
Chairman of the Board President and CEO

Carl Filip Bergendal Hans Wigzell
Board member Board member

My auditor's report was submitted on March 26, 2008

Anders Linér Authorized Public Accountant

Audit Report – translation

TO THE ANNUAL MEETING OF THE SHAREHOLDERS OF RAYSEARCH LABORATORIES AB (publ) CORPORATE REGISTRATION NUMBER 556322-6157

I have audited the annual accounts, the consolidated accounts, the accounting records and the administration of the Board of Directors and the President of RaySearch Laboratories AB for the year 2007. The company's annual report is included in the printed version of this document on pages 36–62. The Board of Directors and the President are responsible for these accounts and the administration of the company as well as for the application of the Annual Accounts Act when preparing the annual accounts and the application of International Financial Reporting Standards IFRSs as adopted by the EU and the Annual Accounts Act when preparing the consolidated accounts. My responsibility is to express an opinion on the annual accounts, the consolidated accounts and the administration based on my audit.

I conducted my audit in accordance with generally accepted auditing standards in Sweden. Those standards require that I plan and perform the audit to obtain high but not absolute assurance that the annual accounts and the consolidated accounts are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the accounts. An audit also includes assessing the accounting principles used and their application by the Board of Directors and the President and significant estimates made by the Board of Directors and the President when preparing the annual accounts and the consolidated accounts as well as evaluating the overall presentation of information in the annual accounts and the consolidated accounts. As a basis for my opinion concerning discharge

from liability, I examined significant decisions, actions taken and circumstances of the company in order to be able to determine the liability, if any, to the company of any Board member or the President. I also examined whether any Board member or the President has, in any other way, acted in contravention of the Companies Act, the Annual Accounts Act or the Articles of Association. I believe that my audit provides a reasonable basis for my opinion set out below.

The annual accounts have been prepared in accordance with the Annual Accounts Act and give a true and fair view of the company's financial position and results of operations in accordance with generally accepted accounting principles in Sweden. The consolidated accounts have been prepared in accordance with International Financial Reporting Standards IFRSs as adopted by the EU and the Annual Accounts Act and give a true and fair view of the Group's financial position and results of operations. The statutory Board of Directors' and President's report is consistent with the other parts of the annual accounts and the consolidated accounts.

I recommend to the Annual Meeting of shareholders that the income statements and balance sheets of the Parent Company and the Group be adopted, that the profit of the Parent Company be dealt with in accordance with the proposal in the Board of Directors' and President's report and that the members of the Board of Directors and the President be discharged from liability for the financial year.

Stockholm, March 26, 2008

Anders Linér Authorized Public Accountant

Board of Directors



ERIK HEDLUND

Chairman and member of the Board of Directors at RaySearch since 2000. President and member of the Board of C-RAD AB, Pencil Beam Technologies AB as well as Nordsymton AB. Other directorships: Chairman of the Board of Kompetenscentrum för Strålningsfysik (Center of Excellence for Medical Radiation Physics) at Karolinska Institutet, Scandiflash AB, Scandiflash Holding AB, hhDesign AB, and RayIncentive AB. Born 1948. Educational background: M.Sc. in Electrical Engineering from the Royal Institute of Technology (KTH) and MBA from Stockholm University.

Professional experience: Erik Hedlund has held a number of senior positions in major international groups, including Siemens and Saab, as well as in small and mid-sized companies during his career. He has concentrated on high-tech with the focus on medical technology. Since 1994, his main focus has been on radiation therapy and radiation physics. He is an independent Board member in relation to Ray-Search Laboratories but not in relation to major shareholders in the company. Shareholding: 522,363 Class A and 76,233 Class B shares.



JOHAN LÖF

President and CEO. Member of the Board of Directors at RaySearch since 2000. Other directorships: RayIncentive AB. Born 1969. Educational background: Johan Löf holds a M.Sc. in Engineering Physics from the Royal Institute of Technology and a Ph.D. from the Department of Medical Radiation Physics at the Department of Oncology-Pathology, Karolinska Institutet. As a doctoral student he worked with mathematical models for optimization of radiation therapy and also developed the prototype for ORBIT. Professional experience: President and CEO of RaySearch since 2000. He is not an independent Board member in relation to RaySearch Laboratories or in relation to major shareholders in the company. Shareholding: 2,081,028 Class A and 281,131 Class B shares.



CARL FILIP BERGENDAL

Member of the Board of Directors at RaySearch since 2000. Other directorships: RayIncentive AB. Born 1945. Educational background: M.Sc. in Engineering Physics from the Royal Institute of Technology and MBA from the Stockholm School of Economics. Professional experience: Carl Filip Bergendal has held a number of senior positions in subsidiaries of the Modo Group (1972–1980) and in the medical-technology company Stille-Werner (1980-1987), with the two final years as President and CEO. He has worked since 1988 as Lots coach® and, in this capacity, provides support for managers in large and mid-size companies in undertaking processes of change. Partner in Conscious Management Scandinavia since 2003. Independent Board member in relation to RaySearch Laboratories and in relation to major shareholders in the company. Shareholding: 353,859 Class A and 51,640 Class B shares.



HANS WIGZELL

Member of the Board of Directors of RaySearch since 2004. Professor at Karolinska Institutet in Solna. Other directorships: Chairman of Karolinska Development I AB and Board member of Biovitrum AB, Intercell AG, Probi AB and Vibratech AB. Other assignments: Member of the Royal Swedish Academy of Science and the Academy of Engineering Science. Born 1938. Educational background: Doctor of Medicine. Professional experience: Dean of Karolinska Institutet in Solna, 1995-2003. Independent Board member in relation to RaySearch Laboratories and in relation to major shareholders in the company. Shareholding: 0. Options: Options for 10,000 Class B shares in RaySearch Laboratories.



THOMAS POUSETTE

Deputy member, Board of Directors for RaySearch since 2004 and secretary of the Board of Directors since 2000. Attorney and partner at Advokatfirma Lindhs DLA Nordic KB. Other directorships: Board member of Spectrogon AB, Lauzon International Network AB and Board Chairman of Swedish-Spanish Trade Forum. Born 1964. Educational background: LLM; (Stockholm University), LLM; (King's College London). Professional experience: County Administrative Court, Jämtland County, Administrative Court of Appeal in Sundsvall, Lindhs DLA Nordic from 1994. He is not an independent Board member in relation to RaySearch Laboratories, but is independent in relation to major shareholders in the company. Shareholding: 4,000 Class B shares.

Senior management



From left: Anders Murman, Ola Enarson, Johan Löf, Henrik Rehbinder, Anders Liander, and Anders Martin-Löf.

JOHAN LÖF, PRESIDENT AND CEO

Member of the Board of Directors at RaySearch since 2000. Other directorships: RayIncentive AB. Born 1969. Educational background: Johan Löf has an M.Sc. in Engineering Physics from the Royal Institute of Technology and a Ph.D. from the Department of Medical Radiation Physics at the Department of Oncology-Pathology, Karolinska Institutet. As a doctoral student he worked with mathematical models for optimization of radiation therapy and also developed the prototype for ORBIT. Professional experience: President and CEO of RaySearch since 2000. Shareholding: 2,081,028 Class A and 281,131 Class B shares.

OLA ENARSON, CHIEF FINANCIAL OFFICER

Born 1961. Educational background: Bsc Econ and MBA from the Stockholm School of Economics. Professional experience: Ola Enarson previously worked as an authorized public accountant at Öhrlings PricewaterhouseCoopers, Chief Financial Officer and controller at KF Fastigheter, Bombardier, and Cybercom. Employed by RaySearch in 2004. Shareholding: 1,000 Class B shares. Options: Options for 50,000 Class B shares in RaySearch Laboratories.

ANDERS LIANDER, DIRECTOR OF DEVELOPMENT

Born 1971. Educational background: Anders Liander has an M.Sc. in Electrical Engineering from the Royal Institute of Technology, Stockholm, with a focus on medical technology. Professional experience: He began at the Department of Medical Radiation Physics at the Department of Oncology-Pathology, Karolinska Institutet, in 1996 and was employed for two years as a doctoral student with the main task of developing ORBIT together with Johan Löf. After that he worked in product development at Elekta. He was employed by RaySearch when the company was founded in 2000. Shareholding: 353,859 Class A and 61,719 Class B shares.

ANDERS MARTIN-LÖF, DIRECTOR OF MARKETING

Born 1971. Educational background: M.Sc. in Engineering Physics from the Royal Institute of Technology and ENSIMAG in Grenoble, France. BSc Econ from Stockholm University. Professional experience: Most recently, Anders Martin-Löf worked at the Biovitrum biotech company where he was responsible for IR and worked with business development, Prior to this he worked as a management consultant for the Boston Consulting Group, Cell Network and as founder and President of ScienceCap, a consulting company focusing on small biotech and medtech companies. He has also attended the Swedish Armed Forces interpreter school and worked at the Swedish Consulate in St. Petersburg, Russia. He has been employed at RaySearch since 2007. Shareholding: 0.

ANDERS MURMAN, PRODUCT DIRECTOR

Born 1967. Educational background: Anders Murman has an M.Sc. in Engineering Physics from the School of Engineering at Uppsala University, with a focus on systems development and radiation science. Professional experience: Anders Murman has worked in radiation therapy throughout his professional career. He worked for twelve years at Helax, MDS Nordion, and Nucletron in a number of positions, including research, development, service, support, sales, marketing, and business development in both Uppsala and California. Most recently, before joining RaySearch, he worked as senior designer for Nucletron's product suite Oncentra MasterPlan. Employed at RaySearch since 2004. Shareholding: 300 Class B shares. Options: Options for 20,000 Class B shares in RaySearch Laboratories.

HENRIK REHBINDER, DIRECTOR OF RESEARCH

Born 1972. Educational background: Henrik Rehbinder has a M.Sc. in Engineering Physics. In 2001, he received his Ph.D. in Optimization and Systems Theory from the Royal Institute of Technology, Stockholm. His Ph.D. studies focused mainly on mathematical methods for autonomous robot systems and biomechanical models of the human body. Professional experience: He has been employed at RaySearch since 2002. Shareholding: 10,800 Class B shares.

Auditors

AUDITOR

Anders Linér

Auditor at RaySearch Laboratories since 2003. Authorized Public Accountant, KPMG Bohlins AB. *Born* 1952.

DEPLITY

Lena Krause

Deputy auditor at RaySearch Laboratories since 2003. Authorized Public Accountant, KPMG Bohlins AB. *Born* 1961.

Scientific Advisory Board

ANDERS BRAHME

Professor and Head of the Department of Medical Radiation Physics at Karolinska Institutet in Stockholm. Professor Brahme received his doctorate in 1975 from Stockholm University. Since then he has been active in the development of new methods for dosimetrics, design of beam delivery and quality assurance. He also initiated the development of intensity modulated radiation therapy (IMRT) with scanned beams and multi-leaf collimators. During the past two decades, his activities have focused on optimization of radiation therapy with radiobiology models and light ion therapy.

ANDERS FORSGREN

Professor at the Department of Optimization Science and Systems Theory, Royal Institute of Technology (KTH), Stockholm. Professor Forsgren received his doctorate in optimization science and system theory from KTH in 1990 and has an M.Sc. in operations analysis from Stanford University. He has worked at KTH since 1990, where he was appointed professor in 2003. His research focus is non-linear optimization

DAVID JAFFRAY

Head of the Department of Radiation Physics at Princess Margaret Hospital, Toronto, Canada and Associate Professor at the Institutions for Radiation Oncology and Medical Biophysics at Toronto University. Dr. Jaffray received his doctorate for his work in megavolt radiology from the Institution for Medicinal Biophysics at the University of Western Ontario 1994. He is certified in the area of medical physics (ABMP, Radiation Oncology) with more than ten years' experience. His main area of interest is the development of IGRT equipment and strategies to improve the therapeutic ratio in radiation therapy of cancer. Dr. Jaffray's major contribution has been the understanding of the foundations underlying megavolt imaging and development of conebeam CT for IGRT.

RADHE MOHAN

Professor and Chairman of the Department of Radiation Physics at M. D. Anderson Cancer Center, Houston, Texas, USA. Professor Mohan received his doctorate in theoretical nuclear physics from Duke University in 1969, following which he held a post-doctoral research post at Rutgers University. He has worked 25 years at Memorial Sloan-Kettering Cancer Center, where he was Assistant Chairman of the Institution for Medicinal Physics. Subsequently, he was professor and head of the Radiation Physics Institution at Virginia Commonwealth University for five years. His research expertise spans a wide spectrum of radiation physics for oncology. In recent years, his activities have focused on intensity modulated radiation therapy, applications of the Monte-Carlo methods in radiation therapy, imaging systems and IGRT and modeling, assessment and applications of dose response relationships.

Glossary

Accelerator Also sometimes referred to as linear accelerator or linac. The accelerator is used to create and shape the radiation beams used in radiation therapy. Usually there are one to ten accelerators per cancer clinic. Major manufacturers are Elekta, Siemens, and Varian.

Adaptive Radiation Therapy (ART) Radiation therapy in which information extracted from image studies (CT, MRI or PET scans) acquired during the course of treatment is used to correct the treatment. This method reduces the effects of uncertainties and erroneous information during planning and improves treatment outcome. Refer also to IGRT. Algorithm development The process of formulating algorithms. Algorithm development focuses on the method itself and not on programming, though programming accounts for a substantial share of algorithm development.

Algorithms A method for solving a problem in a number of steps, for example, a calculation procedure is called an algorithm.

ART Refer to Adaptive Radiation Therapy.

palliative treatment. See below.

Biological optimization Refer to Radiobiological optimization.

Brachytherapy Local radiation treatment using radioactive isotopes, usually radium, iridium or cobalt, placed directly on or in the patient.

Carbon ions By accelerating carbon atoms to speeds approaching half the speed of light. The carbon atom is ionized and can be used for radiation therapy that has a unique biological effect, in addition to the favorable properties that the type of radiation shares with protons.

Collimator angles The collimator used to limit the flow profile's broadening can be rotated around its own axis

Computer tomography (CT scan) The usual diagnostic method for cancer today. A method that uses X-rays to produce a 3D image of the internal density of the body.

Cone-beam CT Technology for computer tomography (CT) images by means of a coneformed X-ray beam, permitting images to be acquired promptly, and is used when CT is integrated with the treatment machine.

Conventional three-dimensional conformal radiation therapy (3D-CRT) The treatment method used today when IMRT is not used. Involves shaping the beams to conform to the contour of a tumor using an MLC, while the intensity of the beam remains constant. Curative radiation therapy Therapy in which clinicians decide to treat patients in an effort to cure the cancer, in other words, completely eradicate the tumor. The opposite is

Detector technology Technology used to measure radiation magnitudes. Technical examples include ion chambers, diodes or electrometers.

Direct optimization of machine parameters The basis of RayMachine. Direct optimization of machine parameters means that, during optimization, you use a detailed model of the accelerator with its physical and technical limitations. This allows a number of factors to be taken into account, resulting in an improved and more efficient treatment plan than you would have had with fluence optimization, where these factors would have been considered during a post-processing step.

Dose calculation algorithms Algorithms for calculating the radiation dose that the patient receives, given a specific machine setting.

Dose response relationships How tissue reacts to radiation.

Dosimetry An area of science dealing with the measurement of absorbed doses in materials from ionizing radiation.

Fluence optimization A method used for calculating IMRT plans in which one permits the photon fluence to vary randomly across each beam's cross-section. The photon fluences are then recomputed to machine settings in a stage that adversely impacts on treatment quality. A better method is "Direct optimization of machine parameters."

Gantry angle optimization Optimization method in which, in addition to computing the optimal collimator setting or fluence profiles, also simultaneously calculates optimal beam angle.

IGRT – Image-Guided Radiation Therapy. Radiation therapy in which information is extracted from images of patients in the treatment position is used for basic geometric corrections such as the patient positioning. Typical imaging modalities are portal imaging and CT scanners integrated with the treatment machine. By means of this procedure, positioning errors can be reduced and a better treatment gained. Refer also to Adaptive radiation therapy.

IMRT Intensity Modulated Radiation Therapy is a technique in which the intensity of the beam is varied spatially using a multi-leaf collimator. Traditional radiation therapy uses only homogeneous intensity.

Light ions An ion is an atom with a negative or a positive charge due to an excess or deficit of electrons. Ions with a lower atomic number, such as helium (2), beryllium (4) and carbon (6) are referred to as being light.

Magnetic Resonance (MR) An increasingly common diagnostic technique that can be used on the entire body, using the magnetic resonance of the body's molecules. A complication-free technique that can clarify where the tumor is located in relation to the rest of the patient's anatomy.

MLC Multileaf collimator The multileaf collimator is a device that shapes the radiation beam and is installed in the treatment head of a linear accelerator. Used to shape the beams to conform to the tumor instead of using only a rectangular field and essentially always in conjunction with the supply of IMRT.

Modularity A property of software, which means that parts of the software can be reused in other contexts and products than the purpose for which they were initially developed.

MR Refer to Magnetic Resonance

Multileaf collimator Refer to MLC

Oncentra MasterPlan. The new name of Nucletron's treatment planning system, formerly referred to as Oncentra Treatment Planning (OTP).

Optimization algorithms for radiation therapy Algorithms for calculating the radiation therapy that gives the best quality of treatment. Quality of treatment is defined by the doctor.

ORBIT Optimization of Radiation Therapy Beams by Iterative Techniques. The core of RaySearch's software, which works as a framework and a toolbox for the software products that RaySearch develops.

Organ contour calculation The process of automatically identifying the contour (closed curve) that defines the area in an image that corresponds to a certain organ.

OTP Oncentra Treatment Planning. The previous name of Nucletron's treatment planning system.

Palliative radiation therapy Therapy in which clinicians cannot cure the disease, but only alleviate it or slow its progress. The opposite is referred to as curative therapy. See above.

Plug-in module Software that can be plugged into a larger software system and provide enhanced functionality.

Positron emission tomography (PET) A more recent diagnostic technique, in which tumor markers are labeled with radioactive isotopes that are injected in the blood. Markers move in the circulatory system to the intended position and radioactivity shows where a tumor is positioned.

Quality assurance Extensive checks are conducted in hospitals of all systems included in the radiation process. Certain checks are conducted daily, others before the treatment of each patient commences. These processes are referred to as quality assurance and are aimed at ensuring that the patients receive exactly the planned dose.

Protons A type of particle with a substantially larger static mass than electrons and which, accelerated to half the speed of light, has superior radiation therapy properties than traditional photon or electron radiation.

Radiation dose algorithms See Dose calculation algorithms.

Radiobiological optimization Optimization of radiation therapy in which mathematical models of how tissue reacts to radiation are used in order to help the user to assess auality of treatment.

Software modules A software package to solve a specific host system's needs for functionality.

Treatment planning Using a computer to find one or more recommendations for radiation therapy of the tumor. Usually includes work with CT images, tumor and organs at risk delineation, application of radiation type and beam angle, optimization (manual or automatic) of dose results, as well as evaluation and approval of best recommendation (plan).

Tumor response. How the tumor reacts to radiation treatment.