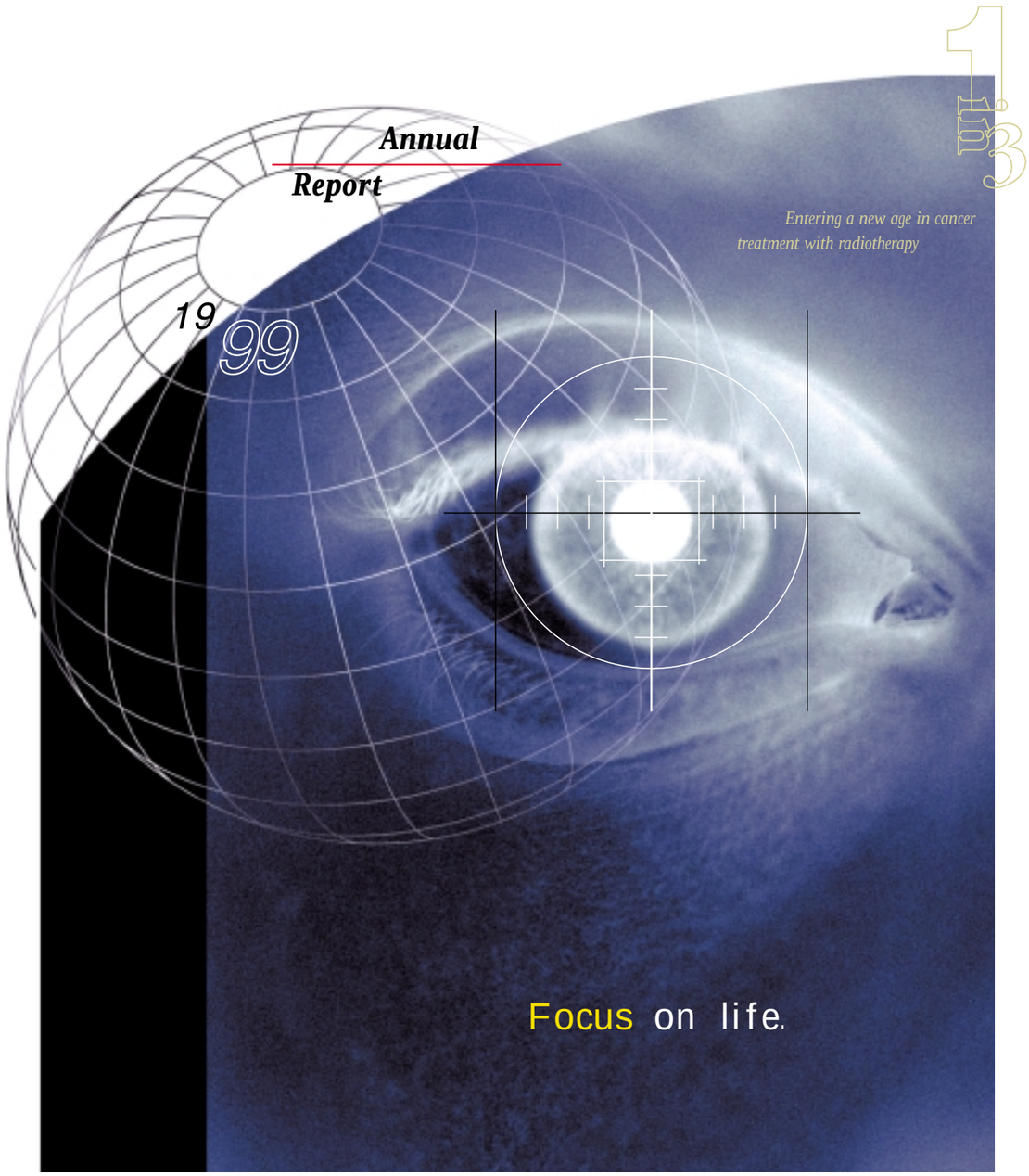
VARIAN
medical systems



Varian Medical Systems (VMS) is the world's leading manufacturer of integrated radiotherapy systems for treating cancer and other diseases, and a leading supplier of X-ray tubes for imaging in medical, scientific, and industrial applications. Established in 1948, the company employs approximately 2,300 people at manufacturing sites in North America and Europe and in 40 sales and support offices worldwide.

Highlights

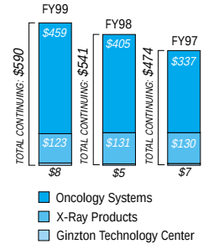
(Dollars in millions except per share amounts)	Fiscal Years 1999	1998
Sales	$ 590.4	$ 541.5
Net Earnings from Continuing Operations—as Reported	$ 8.2	$ 26.1
Net Earnings from Continuing Operations—Pro Forma	$ 39.1	$ 36.0
Net Earnings per Share from Continuing Operations—Diluted, as Reported	$ 0.27	$ 0.86
Net Earnings per Share from Continuing Operations—Diluted, Pro Forma	$ 1.28	$ 1.18
Shares Outstanding at Year End (in thousands)	30,563	29,743
Net Orders	$ 638.3	$ 546.5
Backlog	$ 400.2	$ 352.4

Pro forma net earnings assume a 35 percent tax rate and exclude incremental expenses and gains on sales of assets related to the spin-off of the Company's instruments and semiconductor equipment businesses on April 2, 1999.

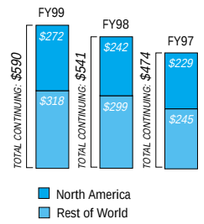
Risk Factors Relating to Forward-Looking Information

This summary Annual Report contains certain "forward-looking" statements within the meaning of the Private Securities Litigation Reform Act of 1995, which provides a "safe harbor" for these types of statements. These forward-looking statements are subject to risks and uncertainties that could cause the actual results of Varian Medical Systems, Inc. (the "Company" or "VMS") to differ materially from management's current expectations. These risks and uncertainties include, without limitation, product demand and market acceptance risks; the effect of general economic conditions and foreign currency fluctuations; the impact of competitive products and pricing; new product development and commercialization; reliance on sole source suppliers; the Company's ability to attract and retain key employees; the Company's ability to collect amounts owed in a timely manner; the Company's ability to increase operating margins on higher sales; the impact of managed care initiatives in the United States on capital expenditures and resulting pricing pressures on medical equipment; fluctuations in the market for capital equipment; successful implementation by the Company and certain third parties of corrective actions to address the impact of the Year 2000; successful consolidation of the Company's X-ray tube manufacturing operations; the Company's ability to operate as a smaller and less diversified business entity; following its recent reorganization the Company's ability to realize anticipated cost savings; the Company's potential responsibility for liabilities arising out of or relating to the reorganization; the Company's potential responsibility for liabilities arising out of or relating to the reorganization that were not expressly assumed by the Company; the possibility that indemnification for certain liabilities arising out of or relating to the reorganization will not be available to the Company due to the indemnifying party's insolvency or legal prohibition; increased debt leverage resulting from the reorganization impacting the Company's ability to obtain future financing for working capital, capital expenditures, product development, acquisitions, and general corporate purposes; the effect of increased debt leverage on cash flow, vulnerability to economic downturns, and flexibility in responding to changing business and economic conditions; possible exposure to fraudulent conveyance allegations arising out of the reorganization; possible exposure to additional tax obligations in connection with the reorganization; and risks detailed in the Company's other filings with the Securities and Exchange Commission. The Company assumes and undertakes no obligation to update or revise any forward-looking statement, whether as a result of new information, future events, or otherwise.

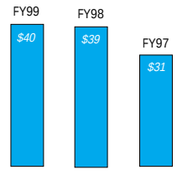
Sales by Business
(Dollars in Millions)

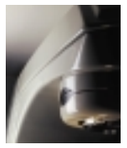


Sales by Region
(Dollars in Millions)



Research & Development
(Dollars in Millions)





	1998	1997
Net Orders	$ 504	$ 414	$ 339
Sales	$ 459	$ 405	$ 337
Pretax Earnings—as Reported	$ 70	$ 60	$ 47
Pretax Earnings—Pro Forma	$ 71	$ 60	$ 47
Pretax Earnings as % of Sales, as Reported	15.2%	14.8%	14.1%
Pretax Earnings as % of Sales, Pro Forma	15.5%	14.8%	14.1%
Backlog	$ 361	$ 316	$ 307
Capital Expenditures	$ 10	$ 7	$ 5
Depreciation & Amortization	$ 9	$ 8	$ 7

FY99 pro forma pretax earnings exclude reorganization and non-recurring expenses related to the spin-off of the Company's instruments and semiconductor equipment businesses, on April 2, 1999.

Business

Varian Oncology Systems is the world's largest supplier of radio-therapy systems for treating cancer. Its integrated medical systems include sales and service of linear accelerators, ancillary accessories, and software for treatment planning, delivery, quality assurance, and patient record administration. Thousands of cancer patients around the world are treated daily on Varian systems. Oncology Systems works closely with healthcare professionals in clinics, hospitals, and universities worldwide, addressing their requirements for continually improving treatment efficacy and cost containment.

Products & Services

Oncology systems:
- Clinac® radiotherapy linear accelerators
- Millennium™ MLC multileaf collimators
- Exact™ treatment couches
- Ximatron® treatment simulators
- Vision,™ Helios,™ and CadPlan PLUS™ treatment planning software
- PortalVision™ imaging systems
- VARiS® data management software
- Varian customer service and product support

Industrial inspection
- Linatron® linear accelerators

1999 Highlights

Oncology Systems set records for sales, operating earnings, and net orders in fiscal 1999. It introduced several important products for high-resolution IMRT (intensity modulated radiation therapy), including the Millennium MLC-120 multileaf collimator and Helios software that work with next-generation CadPlan PLUS software to provide optimized treatment plans. It also established long-term contracts with several major purchasing groups and organizations that together represent a significant portion of the hospitals and clinics in North America.

Outlook

A record backlog has set the stage for continued strong growth in fiscal 2000, driven by demand for equipment and system upgrades that enable hospitals and clinics to offer patients advanced therapies, including high-resolution IMRT. Product develop-ment efforts will continue to focus on enhancing system integration, beam accuracy, patient positioning, safety systems, and process efficiency.

Facilities

Baden, Switzerland
Buc, France
Crawley, England
Espoo, Finland
Milpitas, California
Palo Alto, California (headquarters)
Tokyo, Japan
Zug, Switzerland

X-Ray Products

(Dollars in Millions)	1999	1998	1997
Net Orders	$ 123	$ 128	$ 131
Sales	$ 123	$ 131	$ 130
Pretax Earnings—as Reported	$ 11	$ 20	$ 23
Pretax Earnings—Pro Forma	$ 17	$ 20	$ 23
Pretax Earnings as % of Sales, as Reported	8.6%	15.2%	17.3%
Pretax Earnings as % of Sales, Pro Forma	13.9%	15.2%	17.3%
Backlog	$ 29	$ 30	$ 33
Capital Expenditures	$ 8	$ 6	$ 6
Depreciation & Amortization	$ 9	$ 7	$ 7

FY99 pro forma pretax earnings exclude reorganization and non-recurring expenses related to the spin-off of the Company's instruments and semiconductor equipment businesses, on April 2, 1999, and restructuring expense related to the closure of the Arlington Heights X-ray tube facility.

Business

X-Ray Products is the world's premier independent supplier of X-ray-generating tubes. It serves major original equipment manufacturers in the diagnostic imaging industry and replacement tube distributors around the world. This business provides the industry's broadest selection of X-ray tubes expressly designed for the most advanced CT scanning, radiographic, mammographic, and other diagnostic applications. These products are continuously evolving to meet more and more stringent requirements for high-resolution imaging, rapid examination, patient throughput, long tube life, compact design, and cost-efficiency. X-Ray Products also manages the emerging business of amorphous silicon solid-state imagers.

Products & Services

X-ray tubes for:
- All major segments of the CT scanning market
- Radiographic and fluoroscopic imaging
- Mammography
- Angiographic imaging
- Scientific instrumentation

Amorphous silicon flat-panel imaging subsystems for:
- Industrial inspection
- Medical diagnostic subsystems

1999 Highlights

X-Ray Products introduced the world's most powerful CT scanning tube, which utilizes five patented advancements in tube design to fulfill requirements for rapid, high-resolution imaging in the next generation of half-second, multi-slice CT scanners. The business also developed the prototype of a compact, oil-free, air-cooled tube with one-third fewer parts and lower manufacturing costs than conventional tubes for mid-tier CT scanners. These were among several new X-ray tubes introduced during the year for manufacturers of medical diagnostic and industrial analysis equipment.

Outlook

With several new X-ray tubes in its lineup as well as an emerging line of amorphous silicon flat-panel imagers, X-Ray Products anticipates modest revenue growth and enhanced operating efficiencies in fiscal year 2000. The Salt Lake City plant is expanding production capacity to meet demand for the new high-power CT scanning tube. Shipments of the new integral housing tube are expected to commence late in the new fiscal year. Production of the new amorphous silicon flat-panel imagers should accelerate in the second half of the fiscal year.

Facilities

Charleston, South Carolina
Salt Lake City, Utah (headquarters)

Ginzton Technology Center

(Dollars in Millions)	1999	1998	1997
Net Orders	$ 12	$ 5	$ 6
Sales	$ 8	$ 5	$ 7
Pretax Earnings—as Reported	$ (8)	$ (9)	$ (7)
Backlog	$ 10	$ 6	$ 6
Capital Expenditures	$ 3	$ 1	$ 1
Depreciation & Amortization	$ 1	$ 1	$ 1

Business

The Ginzton Technology Center acts as Varian Medical Systems' research and development facility for breakthrough technologies and operates a brachytherapy business for the delivery of internal radiation to treat cancer. In addition to brachytherapy, current efforts are focused on emerging biotechnologies that shrink tumors by triggering therapeutic gene activity with radiation beams. This business also conducts externally funded contract research related to medical technology, which leads to long-term partnerships and new business opportunities.

Products & Services

VariSource™ high-dose-rate BrachyTherapy™ delivery systems

VariSeed™ BrachyTherapy treatment planning software for seed placement

1999 Highlights

The Ginzton Technology Center enhanced the VariSource product line with the development of two new models, including a transportable unit, for high-dose-rate brachytherapy. The center established a new VariSeed treatment planning product for permanent seed implants in low-dose-rate brachytherapy through the acquisition of the Therapy Planning Systems Division of Multimedia Medical Systems, Inc. The center also secured contracts to investigate digital imaging technologies for medical applications, such as targeting prostate tumors.

Outlook

Demand for minimally invasive procedures is expected to lead to sales growth of products for high- and low-dose-rate brachytherapy, particularly in international markets. The new VariSeed software tool for low-dose-rate prostate cancer brachytherapy planning will serve as a new revenue source for this business.

Facilities

Charlottesville, Virginia
Crawley, England
Mountain View, California (headquarters)

Letter to Stockholders:

that's making a dramatic difference in the fight against cancer.

During fiscal 1999 we spun off the semiconductor equipment and instruments businesses, changed our name to Varian Medical Systems, Inc., and created a focused, stand-alone medical business. We have put a strong management team in place, consolidated real estate, and updated our enterprise systems and benefit plans. We've also marched through a myriad of logistical and financial details that had to be addressed in order to complete this transformation. Today, Varian Medical Systems is an entirely new company that is in the unique position of being well established as the world's market and technology leader for radiotherapy systems and X-ray tubes.

Varian Medical Systems reported a record $590 million in sales of products and services in fiscal 1999, pushing sales up 9 percent over fiscal 1998. Net orders reached a record $638 million, up 17 percent, and backlog finished at a near record $400 million, up 14 percent from the previous year-end. Demonstrating the fundamental earnings power of the business, we generated $39 million or $1.28 per diluted share of pro forma net earnings that assume a 35 percent tax rate and exclude incremental costs and gains on sales of assets related to the spin-off. After accounting for an unusual 55 percent tax rate and other spin-off-related costs, reported net earnings from continuing operations for the year were $8 million or $0.27 per diluted share.

The **Oncology Systems** business, which comprised 78 percent of our sales in fiscal 1999, drove the company's growth in sales and orders during the year. Oncology Systems generated $459 million in sales, up 13 percent from fiscal 1998, and $504 million in net orders, up an impressive 22 percent from the prior year. Through this business, Varian Medical Systems is supplying hospitals and clinics around the world with the most advanced systems for radiotherapy, including the very promising high-resolution IMRT (intensity modulated radiation therapy).

In fiscal 1999 we announced the addition of several powerful new elements to our Generation 6 system of equipment and software that operates off a single shared database for planning, delivering, and verifying treatment. Some key additions include our Millennium MLC-120 multileaf collimator for finely shaping and targeting beams of radiation, our Helios inverse treatment planning software that cuts treatment planning from hours to minutes, and our PortalVision amorphous silicon imaging system for verifying the accuracy of treatments as they're delivered. These new tools give clinicians the ability to deliver high-resolution IMRT, with which they can precisely target tumors, minimize healthy tissue exposure, and significantly step up radiation doses to improve the possibility of a cure.

The **X-Ray Products** business maintained gross margins and contributed to the operating profits of the company despite declines in sales and orders for its X-ray tubes. Its fiscal 1999 sales and net orders each totaled $123 million, down 6 percent and 4 percent, respectively, from fiscal 1998 levels. Consolidation among original equipment manufacturers led to the declines. However, several new products should begin to put this business back onto a modest growth track.

During fiscal 1999, the X-Ray Products team began shipping the world's most powerful tube for high-speed CT scanning. Shipments also began on two products with high growth potential: Varian Medical Systems' proprietary cost-reduced, air-cooled X-ray tube and our amorphous-silicon-based imaging subsystems.

We have given the **Ginzton Technology Center,** our premier research and development facility, the mission of serving as an incubator and launchpad for breakthrough businesses, including our current BrachyTherapy and Biosynergy enterprises. Fiscal 1999 sales, principally from BrachyTherapy products, totaled $8 million, and net orders totaled $12 million. Our acquisition in fiscal 1999 of the Therapy Planning Systems Division of Multimedia Medical Systems extends our reach from high-dose-rate to low-dose-rate brachytherapy with treatment planning for permanent seed implants.

We have also opened the door to the possibility of treating coronary artery disease with radiotherapy. Work during fiscal 1999 culminated in a recent agreement with Cordis Corporation, a Johnson and Johnson company, to supply and service brachytherapy systems that complement angioplasty for clearing blocked arteries. We hope to begin supplying the system to markets outside the United States in 2000. Pending FDA clearance, the system also will be marketed in the United States.

As you will see in the following pages, leading physicians are beginning to talk about dramatic outcomes using high-resolution IMRT, and the medical community is moving to put these systems in place for patients. New studies involving the treatment of prostate cancer with IMRT are showing substantial gains in cure rates with fewer complications for selected patient populations. Clinics are now using IMRT to treat other cancers, including breast cancer and head and neck tumors. The work is just beginning, but it is the most exciting and promising development that I have seen in more than 30 years of working with radiotherapy. The potential of IMRT is tremendous and Varian Medical Systems is at the forefront of this revolution in cancer treatment.

We ended fiscal 1999 with strong forward momentum that we're carrying into fiscal 2000. Our employees have done extraordinary work, persevering through a spin-off while successfully developing and shipping technological products that are advancing medical science. It's clear from the many successes of the last year that this company has the team and the technology

to make a big difference in how patients are treated for cancer and heart disease—two of the most devastating illnesses in the world. Varian Medical Systems has emerged as a company focused on life with committed people who share a passion for contributing to the betterment of our world. We are entering fiscal 2000 with enthusiasm, great confidence, and high hopes.

Richard M. Levy, President and CEO
December 17, 1999

Of any ten people…

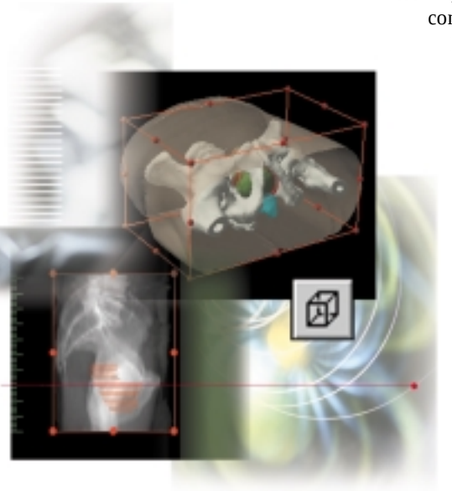
Eventually, three will be diagnosed with cancer. Strangers, friends, family members. Any three people out of ten.

The good news is that their chances of surviving, of beating cancer, have greatly improved, thanks to recent advances in radiation therapy—many of which have been led by Varian Medical Systems.

Success has become a matter of focus. A focus on outcomes, on resolution, and on integration. A focus on global access and on excellence. And ultimately, a focus on life.

Winning the battle against cancer

"High-dose 3-D conformal radiation therapy has been shown to reduce the relapse rate for prostate cancer as measured by PSA (prostate-specific antigen) levels. IMRT,



an advanced form of this conformal approach, will permit the safe delivery of even higher-dose levels by sculpting the volume of high-radiation dose around the surrounding normal tissues."

Steven A. Leibel, M.D.

The odds of beating some cancers have improved dramatically in recent years, thanks to new techniques in radiotherapy, specifically 3-D conformal radiotherapy and high-resolution IMRT, which control tumors locally before the disease can spread. Today, clinicians can shape a beam to deliver a precise radiation dose to the tumor volume, while significantly reducing the exposure of healthy organs and tissue. This has enabled radiation oncologists to increase the cancer-killing radiation dose directed at tumors while reducing adverse complications. Dose escalation studies at leading institutions show that cure rates in some cancer patients are being dramatically improved with the use of these advanced techniques. For example, with prostate cancer patients at Memorial Sloan-Kettering Cancer Center in New York, raising the radiation dose from traditional dose levels of 64.8–70.2 Gy to 81 Gy increased the control rate defined by biopsies of the prostate from 55 percent to 94 percent—an almost 71 percent improvement. Using IMRT techniques, clinicians were able to deliver these high doses while actually reducing the rate of normal tissue complications from 10 percent to 2 percent.[1]

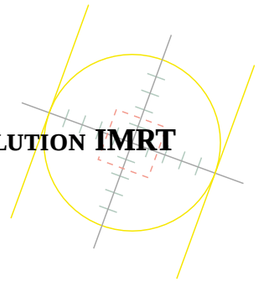
At some point in the course of their disease, approximately one-half of all cancer patients in the United States receive radiation therapy, which affects the genetic structure of cancerous cells and inhibits their ability to replicate. Since cancer cells are fast replicating by nature, such damage is disproportionately disastrous for the tumor but good for the patient. The key is to reduce the damage to normal tissue near the tumor—damage that can cause undesirable complications.

[1] "Clinical experience with intensity modulated radiation therapy (IMRT) in prostate cancer," Zelefsky et al., *Journal of Radiotherapy & Oncology*, 52 (1999) 1–9.

Steven A. Leibel, M.D., FACR, Chairman of the Department of Radiation Oncology, Memorial Sloan-Kettering Cancer Center

Focus on outcomes.

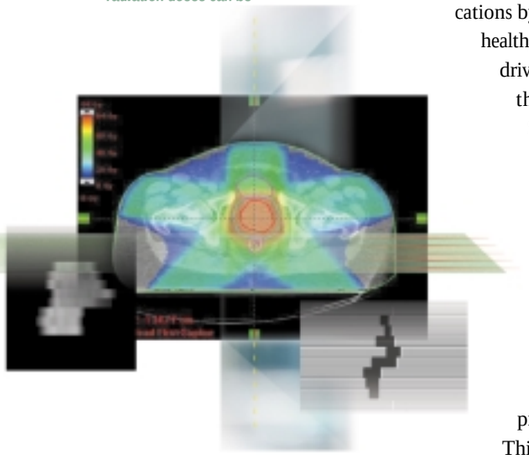
Zeroing in on cancer with high-resolution IMRT



Where the choice is between radiotherapy or surgery, high-resolution IMRT offers many benefits for some patients.

"With high-resolution IMRT, the clinician can use a computer to optimize millions of treatment options. The risks and benefits of a range of radiation doses can be examined, so that the maximum, most effective dose of radiation can be delivered to the tumor while the minimum amount reaches healthy tissue. For cancer patients, this is a revolutionary development."

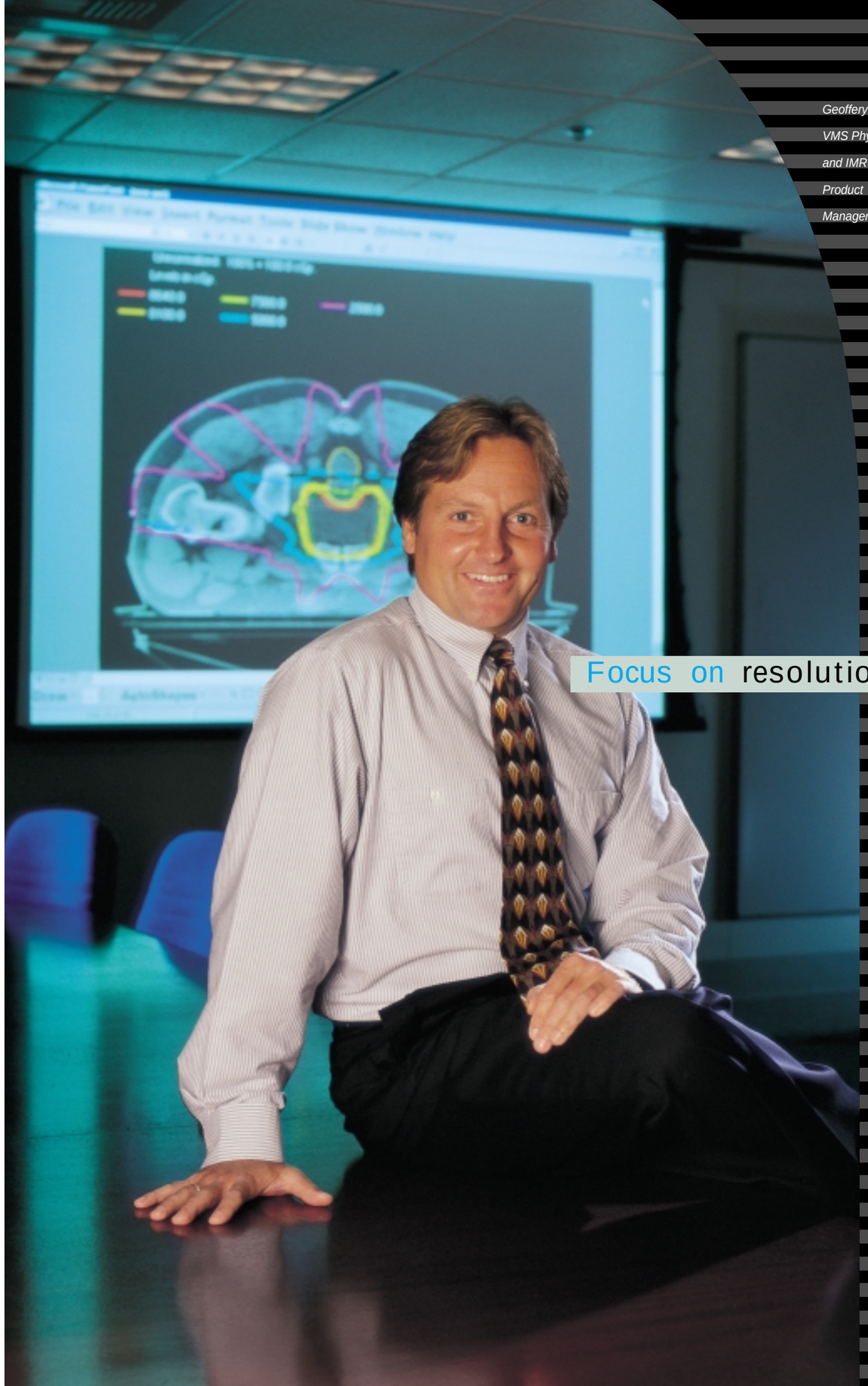
Geoffrey Dalbow, Varian Physicist



Advances in radiotherapy over the last 40 years have made it possible to increase the radiation dose applied to tumors, while reducing complications by minimizing the dose to surrounding healthy tissue. Varian Medical Systems has helped to drive the evolution of this technology, from developing the first isocentric linear accelerator to launching today's SmartBeam™ system for high-resolution IMRT, introduced in early fiscal year 2000. Varian's SmartBeam technology provides clinicians with the most advanced treatment equipment and software for the highest-resolution IMRT ever. For the first time, treatments can be digitally matched to diagnostic images that reveal disease activity within the cells. Using computer-generated 3-D images, physicians can now place precisely shaped volumetric beams of radiation into tumors and concentrate the dose to cancerous hot spots while targeting lower doses more broadly to prevent the disease from spreading. This precise control is enabling physicians to deliver more effective treatments with significantly higher cure rates.

Benefits of IMRT include:

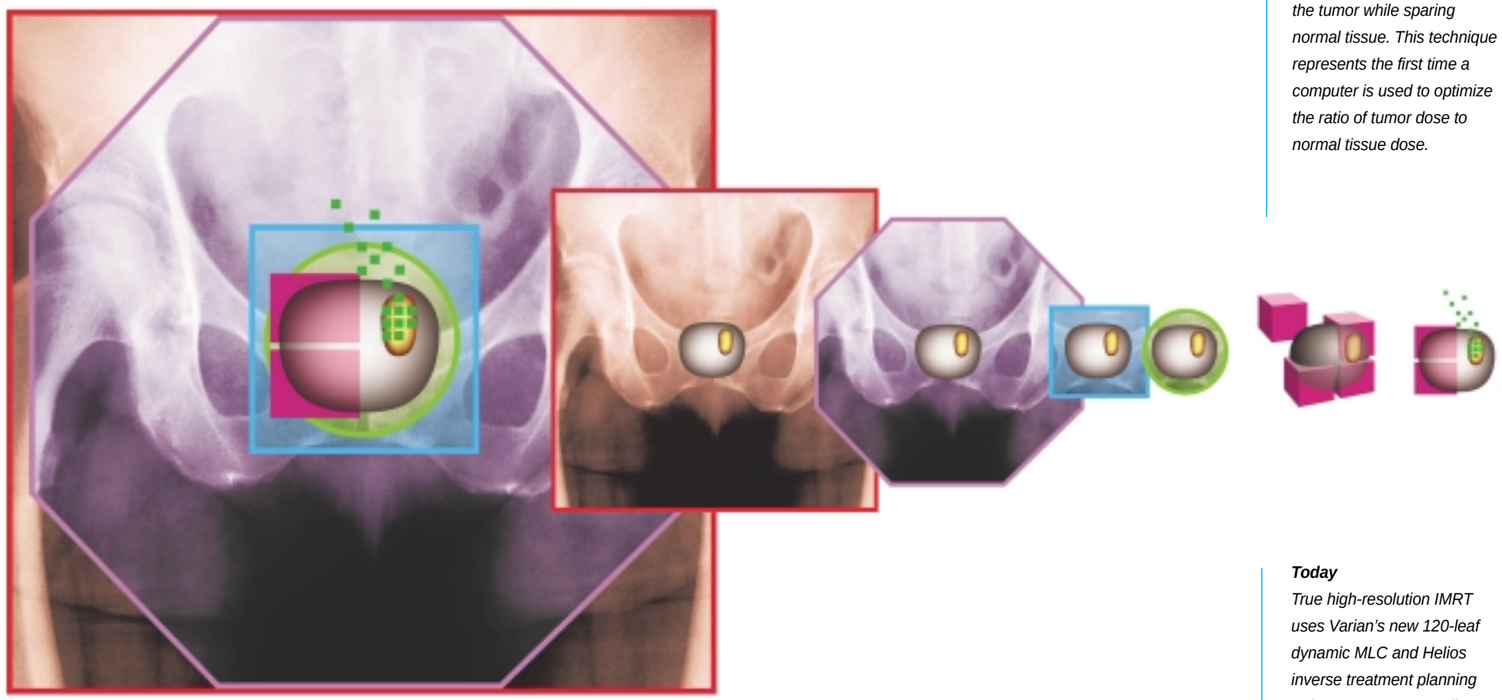
- minimal invasiveness
- fewer complications
- faster recovery
- same or better outcomes
- lower costs



Geoffery Dalbow, VMS Physicist and IMRT Product Manager

Focus on resolution.

THE EVOLUTION OF INTENSITY MODULATED RADIATION THERAPY (IMRT)



1960s
Varian introduces its first medical linear accelerators, which greatly reduce complications endured during conventional cobalt treatments for cancer. A typical treatment field for prostate cancer would have covered the entire pelvis.

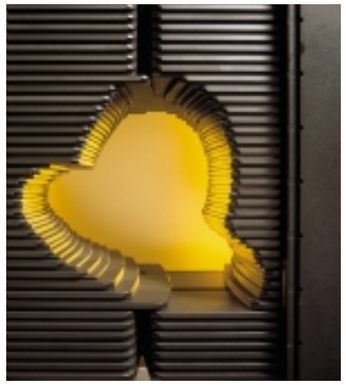
1970s
Varian introduces its first high-energy radiation therapy machine for treatment of deep-seated tumors. Clinicians begin to narrow radiation fields by using lead alloy blocks to reduce radiation hitting healthy tissue by as much as 10 to 15 percent.

1980s
Treatment fields are further reduced, thanks to the diagnostic capabilities of CT scanners, and to computer planning tools and the multileaf collimator (MLC). Together they make it possible to deliver conformal therapy to minimize normal tissue exposure and permit dose escalation. The first dose escalation studies show improved cure rates.

1990s
IMRT uses Varian's state-of-the-art dynamic MLC to segment the treatment fields in order to increase dosage to the tumor while sparing normal tissue. This technique represents the first time a computer is used to optimize the ratio of tumor dose to normal tissue dose.

Today
True high-resolution IMRT uses Varian's new 120-leaf dynamic MLC and Helios inverse treatment planning software to create smaller subfields than ever before possible (2-mm x 5-mm pixels), increasing both resolution and dose conformity. Clinics continue to escalate doses safely, achieving higher cure rates with reduced complications.

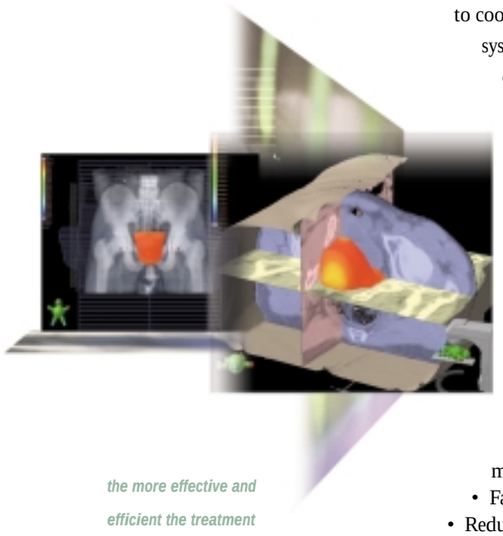
Radiation therapy has evolved from treating large fields that covered entire sections of the patient's body to delivering pixel-sized beams into the tumor using high-resolution IMRT. This pinpoint focus is enabling radiation oncologists to increase doses and achieve higher cure rates, while reducing complications by minimizing doses to healthy tissue. A key component of Varian's IMRT SmartBeam system is the new MLC-120 dynamic multileaf collimator, which provides the precise beam control that enables clinicians to "paint" tumors with prescribed radiation doses. The SmartBeam system works with CadPlan PLUS and Helios, Varian's innovative inverse planning system for dose optimization, to deliver the highest-resolution treatment available for cancer.



Improving treatment efficiency through integration

"The more truly integrated the process and technology are, the more effective and efficient the treatment delivery can be."

Lawrence W. Davis, M.D.



Cancer radiotherapy is a sophisticated process that requires various healthcare professionals—oncologists, physicists, dosimetrists, and others—to coordinate efforts and interact with different systems, sometimes at different facilities. Effective, efficient treatment of patients, especially in the case of advanced protocols, such as IMRT and brachytherapy, requires a degree of integration that has been virtually impossible to achieve until early in fiscal year 2000 when VMS introduced its Generation 6 technology. Generation 6 is the first centralized data management and control system that supports every function of the radiation treatment process. It seamlessly links each step to ensure highly efficient clinical operations, innovative treatment techniques, uniform and consistent user interfaces, and cost-effective business practices.

Some key benefits include the following:

- Fully integrated data and images
- Easier incorporation of new treatment technology and methods
- Faster patient throughput
- Reduction in computer space requirements
- Ease of use

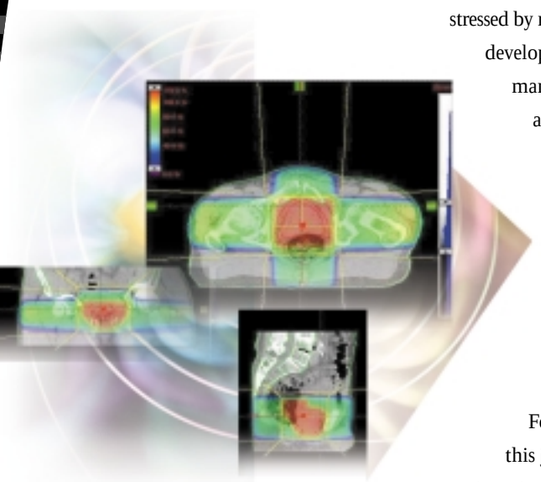
Embedded within VMS systems for advanced radiotherapy cancer care, Generation 6 is an integrated system of software and hardware products that includes:

- **The Vision suite of imaging products for radiation oncology**
- **VARiS information management systems**
- **CadPlan PLUS and Helios treatment planning software**
- **Ximatron treatment simulators**
- **Clinac accelerators**
- **Millennium multileaf collimators**
- **RPM respiratory gating system**
- **Exact patient positioning couches**

Dr. Lawrence Davis, Professor and Chairman, Department of Radiation and Oncology, Emory Clinic, with Emory Clinic colleague Dr. Shelley Machuga

Focus on integration.

WORKING TO PRESERVE LIVES WORLDWIDE



"With the technology developed in the last few years we are able to achieve higher control rates for cancerous tumors, and radiation oncologists around the world have a more compelling case for upgrading the radiotherapy systems that are available for their patients."

Prof. Volker Budach

Medical resources everywhere are being stressed by rising levels of diseases that typically develop over lifetimes—cancer, for example. In many parts of the globe, resources for radiotherapy are limited. Still, leading institutions around the world are achieving encouraging clinical results with advanced techniques, such as 3-D conformal therapy and high-resolution IMRT.

News of this work is spreading through scientific meetings among the global community of radiation oncologists. Seeing these results many radiation oncologists are convinced that, in a significant number of cases, advanced radiotherapy can be more effective for local control of tumors and substantially more economical than alternatives.

For increasing numbers of institutions, this justifies investment in new systems to give patients better access to the new treatment modalities.

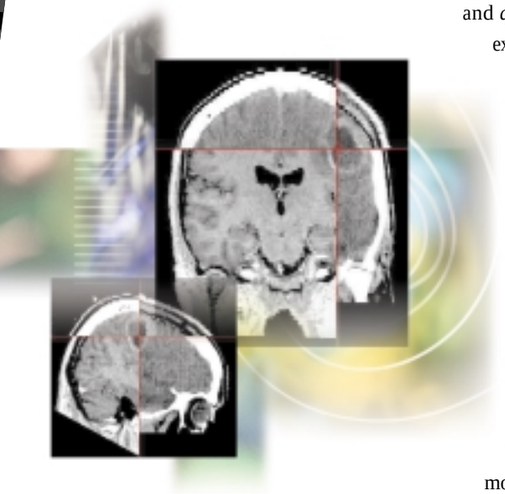
Focus on global access.

Prof. Volker Budach, Director of the Radiation Oncology Program, Charité University Clinic, Berlin; Chairman of the Radiotherapy Group of the European

Developing technology with the patient in mind

In the forefront of research bringing radiation technology to medical applications, the Ginzton Technology Center (GTC) develops technologies used by VMS product groups and manages the company's efforts in Biosynergy and other "breakthrough businesses." The GTC has advanced the application of technology in many areas, including brachytherapy, digital and flat-panel X-ray imaging, and respiratory gating.

VMS design engineers Chris Artig and Debi Salmon (pictured at right) of X-Ray Products, together with Gary Virshup of Varian's Ginzton Technology Center, have teamed with others to develop Quantum Series CT tubes. These environmentally friendly new products use a unique integral housing that increases performance, reduces component count and weight, and eliminates difficult-to-recycle dielectric oil, lead, and beryllium.



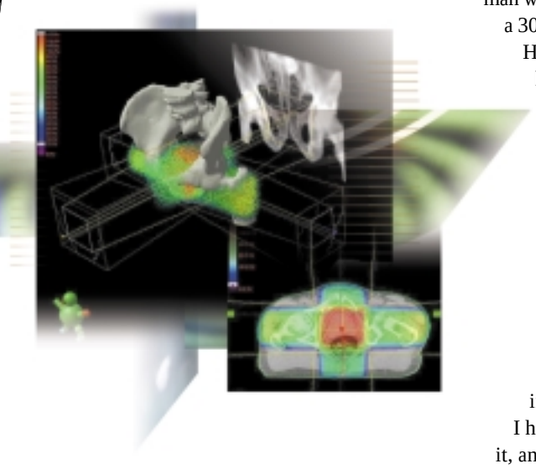
When success is measured in the number of lives that are being saved, terms like *innovation* and *quality* take on a different meaning. For example, Varian Medical Systems' new high-power CT scanning tube, which is capable of performing at almost twice the sustained output of any other tube in the medical imaging industry, makes possible improved images in the next generation of half-second CT scanning. This allows for better care and helps to raise hope all over the world for millions of patients who will benefit from the innovation. At Varian Medical Systems, pursuing excellence means helping our customers to achieve better patient outcomes, increase patient throughput, and reduce treatment costs. Tubes made by VMS X-Ray Products are now used in nearly one-half of the mammography systems and in nearly one-fourth of the CT scanners worldwide, accounting for more than 2.2 billion diagnostic medical exposures a year.

VMS design engineers Chris Artig and Debi Salmon of X-Ray Products

Focus on excellence.

Advancing into the 21st century

"I looked at the data, the recuperation times, and the outcomes for different procedures. IMRT had the highest success rate with the fewest complications—



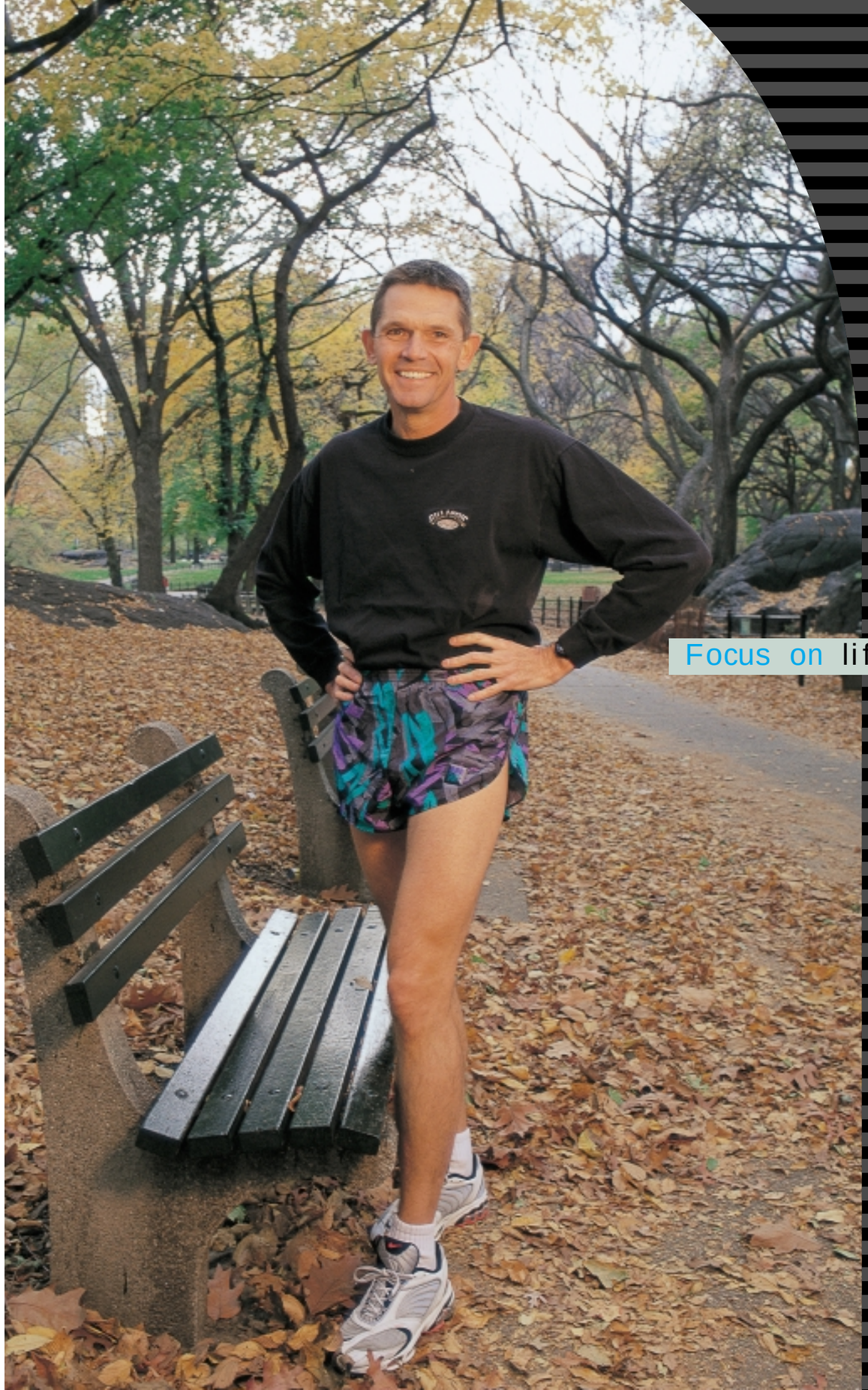
and it was the least disruptive. Given my age, lifestyle, and background, IMRT was the best choice for me."

Don Mills,
Varian Medical Systems salesman and prostate cancer patient

For 17 years he has sold radiation therapy systems—suddenly he finds himself in dire need of them. Don Mills, 50, is a Varian Medical Systems salesman. A gentle and reserved man with a wife and two daughters, he is fit as only a 30-mile-per-week runner (sun, rain, or snow) can be. He's also a prostate cancer patient who, having considered his family, lifestyle, and the available remedies, chose intensity modulated radiation therapy. Don is one of a growing number of patients who have chosen IMRT for treating their breast, prostate, lung, or head and neck cancer. "Before I was ever diagnosed I was awed by IMRT," Mills explains. "It's the most dramatic advance in the 20 years I've been involved with radiotherapy." Living in New York during his treatment at Memorial Sloan-Kettering Cancer Center, he runs at dawn through Central Park and gets therapy later in the morning. "I'm being treated from five angles," Mills says, "yet I'm in and out in 10 minutes. Before IMRT this would have been impossible. "I'm staking my life on this technology. I have complete confidence in it, and in the therapists and professionals helping me."

In 1999 in the United States alone, approximately 37,000 deaths resulted from prostate cancer, and an estimated 179,300 new cases were diagnosed—more than for any other type of cancer in either men or women. Thanks largely to prostate-specific antigen (PSA) blood test screenings and earlier detection in general, the survival rate for all stages of prostate cancer increased from 67% to 93% over the past 20 years.[2]

[2] "Cancer Facts and Figures—1999," The American Cancer Society



Don Mills, Varian Medical Systems

Focus on life.

"Intensity modulated radiation therapy is a paradigm shift in the way that radiotherapy planning is performed. In terms of the delivery of dose, IMRT is the fulfillment of the original promise of the merger of computer technology and advanced imaging."

Roger Macklis, M.D., Chairman, Department of Radiation Oncology, Cleveland Clinic, Ohio

"The benefit of IMRT is that we can escalate our doses to the tumor while at the same time keeping treatments practical. Ultimately this should allow us to cure more patients."

Adrian Oliver, Medical Physicist,
Thompson Cancer Survival Center, Tennessee

"I think the public should know that there is a new modality available that is one of the greatest advancements in cancer treatment in a long time."

Michael J. Greenberg, M.D., Medical Director,
Pocono Cancer Center, Pennsylvania

Financial Review

The intent of this summary Annual Report is to provide useful information on Varian Medical Systems, Inc. in a format that is both concise and cost-effective. It is not intended as a substitute for the Company's quarterly and annual filings with the Securities and Exchange Commission. The Company's complete audited financial statements are included in the Company's fiscal year 1999 Form 10-K.

Consolidated Statements of Earnings

(Amounts in thousands, except per share amounts)	Fiscal Years 1999	1998	1997
Sales	$ 590,440	$ 541,461	$ 474,300
Operating costs and expenses			
Cost of sales	380,435	346,298	310,682
Research and development	39,895	39,255	31,211
Selling, general and administrative	116,131	117,528	100,076
Reorganization	29,668	—	—
Total operating costs and expenses	566,129	503,081	441,969
Operating earnings	24,311	38,380	32,331
Interest expense, net	6,072	2,417	3,179
Earnings from continuing operations before taxes	18,239	35,963	29,152
Taxes on earnings	10,021	9,819	9,183
Earnings from continuing operations	8,218	26,144	19,969
Earnings (loss) from discontinued operations—net of taxes	(32,456)	47,696	95,591
Net earnings (loss)	$ (24,238)	$ 73,840	$ 115,560
Average shares outstanding—basic	30,219	29,910	30,451
Average shares outstanding—diluted	30,527	30,419	31,446
Net earnings (loss) per share—basic			
Continuing operations	$ 0.27	$ 0.87	$ 0.66
Discontinued operations	(1.07)	1.60	3.13
Net earnings (loss) per share—basic	$ (0.80)	$ 2.47	$ 3.79
Net earnings (loss) per share—diluted			
Continuing operations	$ 0.27	$ 0.86	$ 0.64
Discontinued operations	(1.06)	1.57	3.03
Net earnings (loss) per share—diluted	$ (0.79)	$ 2.43	$ 3.67

The operations of the Company's former instruments and semiconductor equipment businesses which were spun off on April 2, 1999, are reflected as discontinued operations for all periods presented.

CONSOLIDATED BALANCE SHEETS

(Dollars in thousands, except par values)	October 1, 1999	October 2, 1998
Assets		
Current assets		
Cash and cash equivalents	$ 25,126	$ 149,667
Accounts receivable	233,785	392,596
Inventories	78,324	204,464
Other current assets	45,011	93,054
Total current assets	382,246	839,781
Property, plant, and equipment	200,386	509,089
Accumulated depreciation and amortization	(120,138)	(294,867)
Net property, plant, and equipment	80,248	214,222
Other assets	76,689	164,292
Total assets	$ 539,183	$ 1,218,295
Liabilities and stockholders' equity		
Current liabilities		
Notes payable	$ 35,587	$ 46,842
Accounts payable—trade	40,141	76,166
Accrued expenses	121,165	282,647
Product warranty	18,152	44,153
Advance payments from customers	54,757	55,081
Total current liabilities	269,802	504,889
Long-term accrued expenses	25,890	44,771
Long-term debt	58,500	111,090
Total liabilities	354,192	660,750
Stockholders' equity		
Preferred stock		
Authorized 1,000,000 shares, par value $1, issued none	—	—
Common stock		
Authorized 99,000,000 shares, par value $1, issued and outstanding 30,563,000 shares at October 1, 1999, and 29,743,000 shares at October 2, 1998	30,563	29,743
Capital in excess of par value	20,185	—
Retained earnings	134,243	527,802
Total stockholders' equity	184,991	557,545
Total liabilities and stockholders' equity	$ 539,183	$ 1,218,295

The October 1, 1999 balance sheet reflects the spin-off of the Company's instruments and semiconductor equipment businesses on April 2, 1999.

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Fiscal Years		
(Dollars in thousands)	1999	1998	1997
Operating activities			
Net cash (used)/provided by operating activities	$ (33,557)	$ 127,753	$ 44,939
Investing activities			
Proceeds from sale of property, plant, and equipment	54,260	2,321	2,220
Proceeds from sale of Thin Film Systems business	—	—	145,500
Purchase of property, plant, and equipment	(39,402)	(46,954)	(55,087)
Purchase of businesses, net of cash acquired	(5,849)	(105,470)	(34,272)
Other, net	3,851	7,035	(8,685)
Net cash provided/(used) by investing activities	12,860	(143,068)	49,676
Financing activities			
Net borrowings on short-term obligations	11,253	27,624	2,305
Proceeds from long-term borrowings	—	38,000	25,000
Principal payments on long-term debt	(12,138)	(96)	(71)
Proceeds from common stock issued to employees	15,667	19,732	38,183
Purchase of common stock	—	(54,276)	(94,730)
Dividends paid	(2,991)	(14,348)	(10,399)
Cash distributed in spin-off of businesses	(119,273)	—	—
Other, net	2,792	2,692	(245)
Net cash (used)/provided by financing activities	(104,690)	19,328	(39,957)
Effects of exchange rate changes on cash	846	3,356	4,965
Net (decrease) increase in cash and cash equivalents	(124,541)	7,369	59,623
Cash and cash equivalents at beginning of fiscal year	149,667	142,298	82,675
Cash and cash equivalents at end of fiscal year	$ 25,126	$ 149,667	$ 142,298
Detail of net cash provided by operating activities			
Net (loss)/earnings	$ (24,238)	$ 73,840	$ 115,560
Adjustments to reconcile net earnings to net cash provided by operating activities:			
Depreciation	30,879	42,663	45,649
(Gain)/loss from sale of assets	(30,565)	62	974
Amortization of intangibles	6,519	4,993	3,614
Gain on sale of Thin Film Systems business	—	—	(51,039)
Deferred taxes	(20,850)	(5,166)	(9,703)
Changes in assets and liabilities:			
Accounts receivable	(29,896)	33,790	(61,312)
Inventories	3,295	(18,098)	(5,586)
Other current assets	(14,098)	(2,458)	3,770
Accounts payable—trade	6,558	(16,728)	10,479
Accrued expenses	28,435	1,650	(24,859)
Product warranty	(2,961)	2,061	(2,666)
Advance payments from customers	13,319	186	3,633
Long-term accrued expenses	(3,056)	9,019	11,251
Other	3,102	1,939	5,174
Net cash (used)/provided by operating activities	$ (33,557)	$ 127,753	$ 44,939

Officers & Directors

Officers

Richard M. Levy, Ph.D.
President and Chief
Executive Officer

Elisha W. Finney
Vice President, Finance
Chief Financial Officer
and Treasurer

John C. Ford, Ph.D.
Vice President,
President, International
Marketing Operations

Timothy E. Guertin
Vice President,
President, Oncology Systems

Robert H. Kluge
Vice President,
President, X-Ray Products

Joseph B. Phair
Vice President,
Administration;
General Counsel and
Secretary

Duane A. Walstrom
Corporate Controller

Board of Directors

Richard W. Vieser
Chairman of the Board,
Varian Medical Systems, Inc.
Chairman, CEO, and
President (Retired),
Lear Siegler, Inc.

John Seely Brown, Ph.D.
Director, Xerox Palo Alto
Research Center;
Chief Scientist and
Vice President,
Xerox Corporation

Samuel Hellman, M.D.
A.N. Pritzker Distinguished
Service Professor,
Department of Radiation
and Cellular Oncology,
University of Chicago

Terry R. Lautenbach
Senior Vice President
(Retired), International
Business Machines
Corporation

Richard M. Levy, Ph.D.
President and Chief
Executive Officer,
Varian Medical Systems, Inc.

David W. Martin, Jr., M.D.
President and Chief
Executive Officer,
EOS Biotechnology, Inc.

Burton Richter, Ph.D.
Paul Pigott Professor in
Physical Sciences,
Stanford University;
Director Emeritus, Stanford
Linear Accelerator Center

Stockholder Information

World Headquarters
Varian Medical Systems, Inc.
3100 Hansen Way
Palo Alto, CA 94304-1038
650.493.4000

Stockholder Relations
Copies of Varian's Form 10-K report filed with the Securities and Exchange Commission and other current financial information are available without charge by contacting Stockholder Relations:
Varian Medical Systems, Inc.
3100 Hansen Way, M/S E-210
Palo Alto, CA 94304-1038
650.424.5855

To obtain information
over the Internet,
type *http://www.varian.com/vms*
at the URL prompt.

Listings
Varian's common stock is listed on the New York and Pacific Stock Exchanges. The symbol is VAR.

Transfer Agent and Registrar
First Chicago Trust Company of New York
P.O. Box 2500
Jersey City, NJ 07303
1.800.756.8200

Stockholders' Meeting
The annual meeting of stockholders will be held
February 17, 2000, at 1:30 p.m.,
at the Sheraton Palo Alto Hotel,
625 El Camino Real,
Palo Alto, California 94301

Stockholders of Record
There were 5,211 stockholders of record of the Company's common stock on December 1, 1999.

Design: Paige Johnson Design, Inc., Carmel & Redwood City, California

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www.varian.com