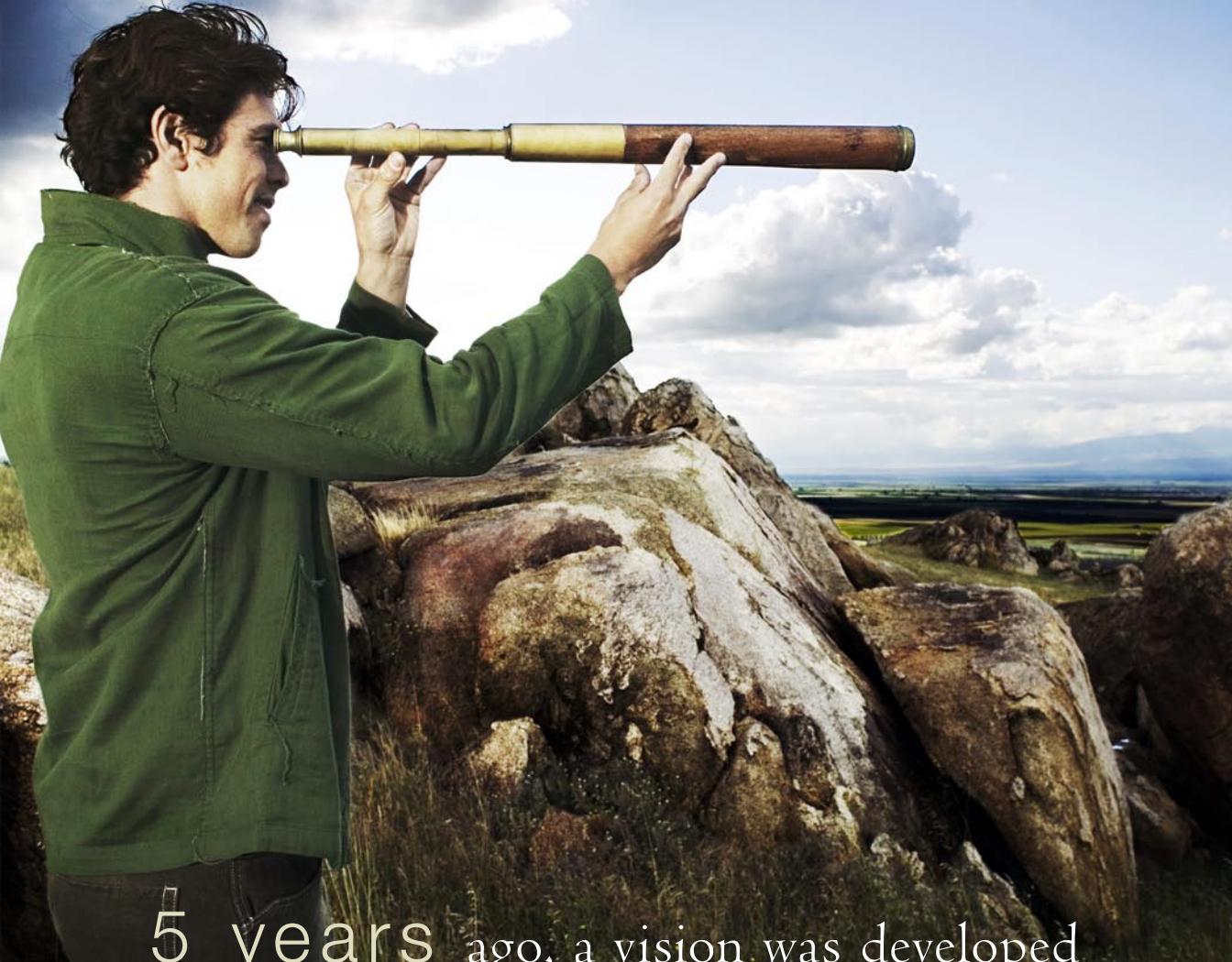




3platforms 1company
expanding our global markets

KYPHON
AHEAD OF THE CURVE™

2006 annual report



5 years ago, a vision was developed
and our mission began



Financial Highlights

(\$ in millions except EPS)	2006	2005	2004	2003	2002
Net sales	\$ 407.8	\$306.1	\$213.4	\$131.0	\$ 76.3
Year-over-year growth	33%	43%	63%	72%	111%
Net earnings, as reported	\$ 39.7	\$ 29.8	\$ 21.7	\$ 27.3	\$ (15.3)
Stock-based compensation expense (SFAS123R), net of income taxes	\$ 19.1	—	—	—	—
IPR&D and non-recurring items, net of income taxes	—	\$ 12.7	—	\$ (18.0)	\$ 12.3
Net earnings excluding SFAS123R, IPR&D, and other non-recurring items	\$ 58.8	\$ 42.5	\$ 21.7	\$ 9.3	\$ (3.1)
Diluted earnings per share, as reported	\$ 0.86	\$ 0.66	\$ 0.50	\$ 0.65	\$ (0.63)
Stock-based compensation expense (SFAS123R) per share	\$ 0.41	—	—	—	—
IPR&D and other non-recurring items per share	—	\$ 0.28	—	\$ (0.43)	\$ 0.50
Diluted earnings per share excluding SFAS123R, IPR&D, and other non-recurring items	\$ 1.27	\$ 0.94	\$ 0.50	\$ 0.22	\$ (0.13)
Year-over-year growth	35%	88%	127%	269%	99%
Ending cash, restricted cash and investments	\$ 202.2	\$194.5	\$115.8	\$ 85.5	\$ 74.3

Net Sales
(in millions)



Pro Forma
Operating
Margin





today we are providing relief to our patients globally





Vision Improve patient quality of life through revolutionizing the practice of medicine.

Mission Become the recognized global leader in restoring spinal function through minimally invasive therapies.

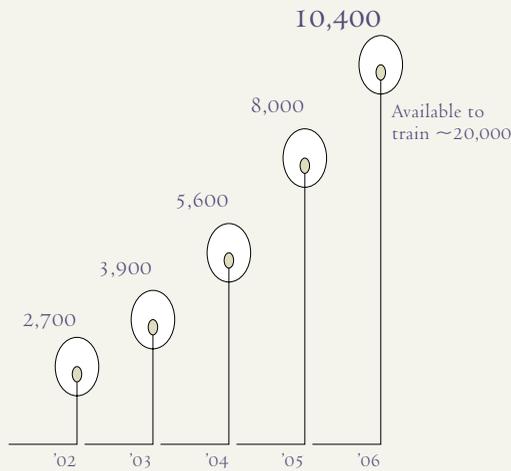
Our mission has always been to become the recognized global leader in restoring spinal function through minimally invasive therapies. We included the word *global* quite intentionally: vertebral compression fractures, lumbar spinal stenosis, degenerative disc disease, and other back disorders happen to people all over the world. In Japan alone, we estimate more than 500,000 spinal fractures occur each year just from osteoporosis.

Clearly, there is a worldwide need for our solutions, which is why we are focusing resources on making our solutions available worldwide. We have nearly 500 sales professionals around the world and to date have trained about 11,000 spine specialists globally in the balloon kyphoplasty procedure.

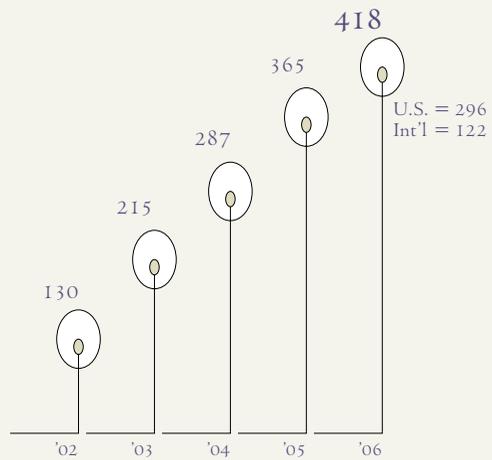
These efforts are paying off—we now have revenues in more than 40 countries. To better serve our European customers, we have moved the distribution, financial services, and order entry functions of our European operations into our international operations center in Neuchâtel, Switzerland. We expect to begin manufacturing there in 2008.

As long as people anywhere in the world can benefit from our technology, we intend to be there to provide it to them.

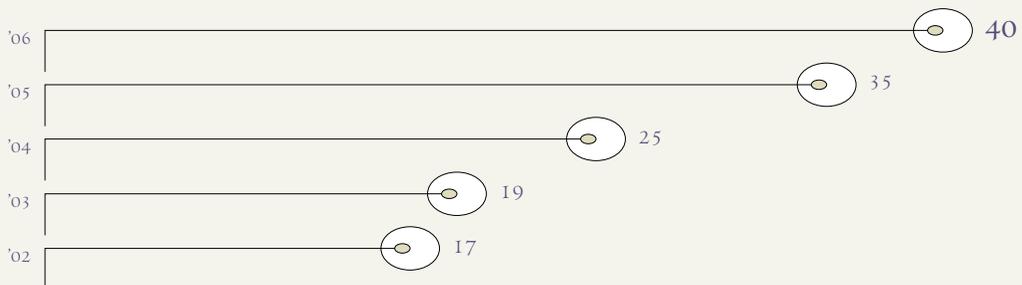
Global Specialists Trained in Balloon Kyphoplasty

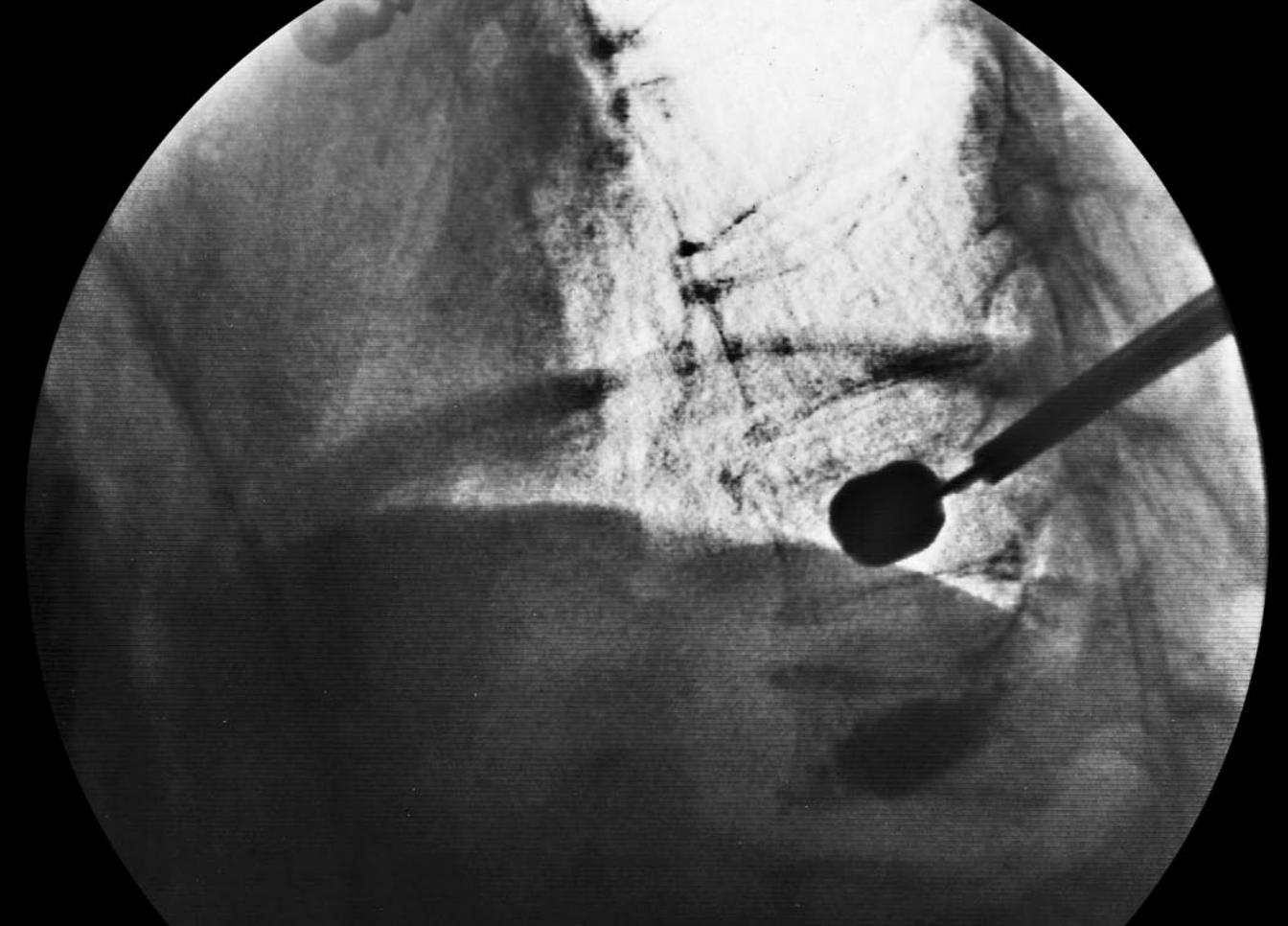


Global Sales Representatives



Countries with Sales/Marketing Presence





Our products are designed to restore
both bodies and lives



X-STOP® Implant



KyphX® Latitude™ II Curette



KyphX® HV-R™ Bone Cement



KyphX® Xpander® Inflatable Bone Tamp



restoring a patient's life with speed and efficiency

Nancy Zacherl, 65 Palestine, TX

Had her life restored after 1 Balloon Kyphoplasty procedure—a life she enjoys with her husband.

“You could see the vertebrae went back to normal shape and size.

I left the hospital with no limitations on my activities—fabulous!”

Our balloon kyphoplasty procedure works. That's not just our opinion: the growing body of balloon kyphoplasty data provides compelling clinical evidence for balloon kyphoplasty that is not available for other competitive vertebral augmentation technologies. That gives our spine specialist customers and their patients who rely on balloon kyphoplasty to restore their quality of life the confidence of knowing that it is a worthwhile and clinically valid treatment.

Just last year, we announced the results of a two-year study showing that using balloon kyphoplasty to repair spinal fractures provides immediate and sustained improvements in function and mobility—a significant benefit for elderly patients. Prior to treatment, the vast majority of patients could not walk without assistance and required the strongest prescription medications to control pain. One week after the procedure, more than three quarters of the patients could walk independently and without difficulty, and more than half no longer needed pain medication of any type.

No wonder some 270 patients worldwide were treated with balloon kyphoplasty *each day* last year—about 100,000 patients in all during 2006.



Last year, we took the first steps in advancing our minimally invasive therapies beyond balloon kyphoplasty with our acquisition of InnoSpine. We then spent much of the year working on market development and commercialization for our Discyphor™ Catheter System for the Functional Anaesthetic Discography™, or F.A.D.™, procedure.

We believe approximately 200,000 patients with persistent, severe axial back pain could benefit from this diagnostic procedure each year in the U.S. alone, including most patients undergoing spinal fusion at one or more levels. So far, more than 100 clinicians have used the Discyphor™ system to perform some 650 procedures in more than 1,000 intervertebral levels suspected of contributing to a patient's back pain. The encouraging results of these procedures demonstrate that the decision on how to treat a patient with fusion could be dramatically affected with the information available from our F.A.D.™ technology.

Our long-term goal is nothing less than to make F.A.D.™ the standard procedure for diagnosing the source of low back pain. We believe it represents an exciting new advance over the existing discography procedure now being performed.

James Halpin, 79 Davenport, FL

Suffered for 20 years with debilitating symptoms caused by lumbar spinal stenosis.

"After my X-STOP® procedure, I'm back walking around pain-free. It's amazing!"



lives are meant to be enjoyed,
our products provide the **means**



In January 2007, we closed the acquisition of St. Francis Medical Technologies, manufacturer of the X-STOP® IPD® Interspinous Process Decompression System. The X-STOP® System is the first interspinous process implant approved in the U.S. for treating lumbar spinal stenosis, or LSS. It represents a new approach to the treatment of LSS that provides physicians and patients with a treatment alternative that fills the current gap in the continuum of care between conservative, non-operative therapy and the surgical procedure called laminectomy, which involves removing part of the spine to relieve a patient's pain.

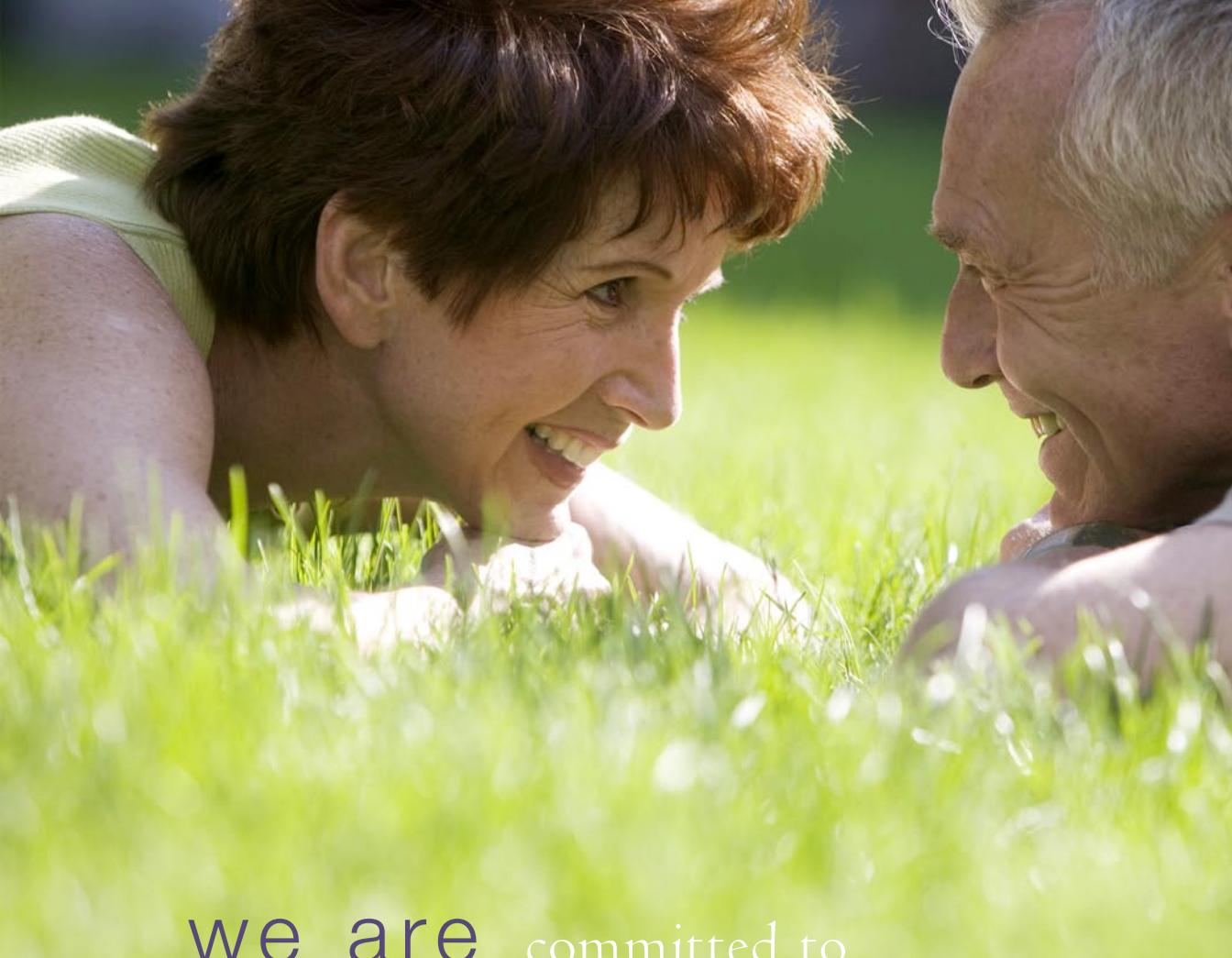
Clinical data from a multi-center, prospective, randomized, controlled study indicate that effectiveness for patients treated with the X-STOP® device was significantly greater than for patients treated non-operatively. Already over 20,000 X-STOP® devices have been implanted worldwide. We believe there is a potential global market of at least \$2 billion for this technology.

We expect to train approximately 1,800 spine specialists in the U.S. in 2007 to perform the X-STOP® IPD® procedure. That's in addition to the 1,400 surgeons trained by St. Francis in 2006. We will also be undertaking a prospective, 240-patient, single-arm study to confirm the effectiveness of the device in patients with moderate LSS as part of the original approval requirements of the FDA. Additionally, we will continue to support current studies underway that compare clinical outcomes from patients who undergo an X-STOP® IPD® procedure to those who undergo a laminectomy and evaluate studies for the use of the X-STOP® System in new indications.

The X-STOP® System provides us with a complementary growth platform that fits our mission and leverages our established global sales channel. And the X-STOP® device is just one part of the robust intellectual property portfolio that was part of the St. Francis acquisition.

expanding our portfolio in
minimally invasive technology





we are committed to better therapies and outcomes

Christine Siegel, 57 Greenbrae, CA

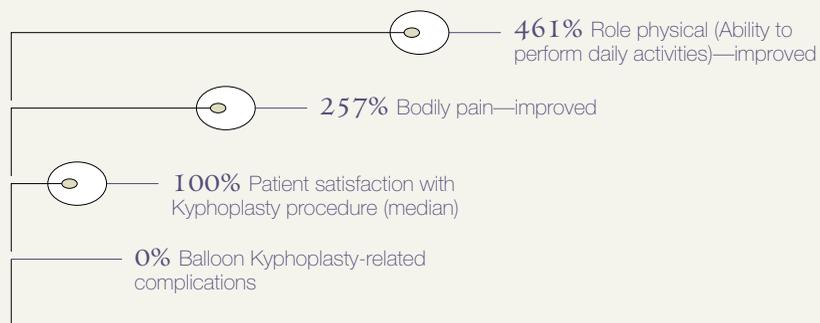
Being diagnosed with multiple myeloma is frightening enough; add compression fractures to the devastating complications of the disease and life becomes even more difficult. Over the course of six months, Ms. Siegel lost 6 inches of height because of fractures in her back.

"The cancer caused me to fall apart. This procedure put me back together again."

Balloon Kyphoplasty Benefits

(sustained for over 2 years)

Normalized results from 100 patients followed in published multicenter prospective study



Garfin SR, Buckley RA, Ledlie J. Balloon Kyphoplasty for Symptomatic Vertebral Body Compression Fractures Results in Rapid, Significant, and Sustained Improvements in Back Pain, Function and Quality of Life for Elderly Patients. *Spine* 2006;31:2213–2220. Kyphon Inc. supported this study. Some of the authors are paid Kyphon consultants.



“We have never been more committed to making the necessary investments to demonstrate the clinical value of our products and reduce the overall economic burden of spinal treatment.”

RICHARD W. MOTT
PRESIDENT AND CHIEF EXECUTIVE OFFICER



Dear Shareholders, Customers, Patients, and Employees:

Of all the numbers in this report, none is more important than this one: 365,000.

That's how many vertebral compression fractures (VCFs) have been treated worldwide to date with balloon kyphoplasty. It's extremely gratifying to know that our solutions are helping people every day.

Balloon kyphoplasty is a proven technology that safely and effectively addresses the pain and deformities caused by VCFs originating from osteoporosis and cancer. More than a quarter-million people can vouch for that, including approximately 100,000 patients in 2006 alone. And use of our products to perform the procedure continues to increase as our revenues worldwide grew 33% to \$408 million in 2006.

Our U.S. business continued its strong performance with revenues up 26% while posting its 28th consecutive quarter of revenue increase through the end of last year. We are proud of these results and believe they reflect the demand for our products and our ability to execute.

We also enhanced our international presence with revenues derived from 40 countries in 2006, up from 30 the year before. Our international business grew 72% versus 2005 and comprised 21% of worldwide revenues. That's up from 16% in the prior year. We grew and strengthened our

business in Europe and began to see meaningful results from our expansion initiatives in Canada, Latin America, and Asia.

And I'm very pleased to report that we finished another year without a single backorder. Let me repeat that: Kyphon has never had a backorder.

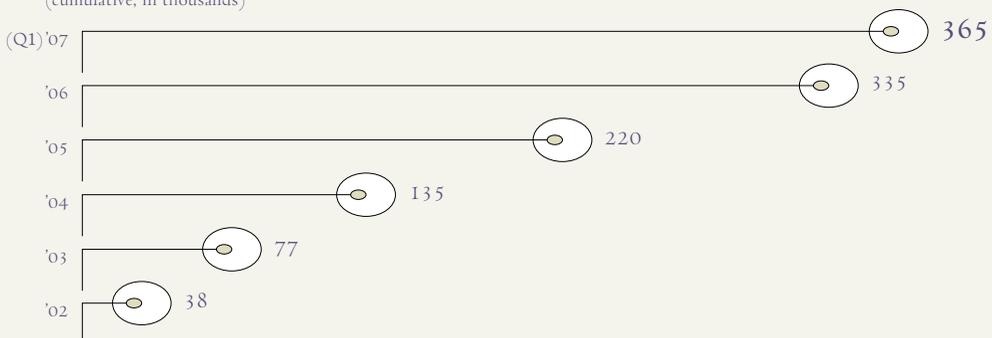
A multi-pronged approach to growing our company

This has been a tremendous period of growth for our company and it didn't just happen. It happened through the intense focus and dedication of the entire Kyphon organization—by introducing innovative technologies, building a large, highly trained direct sales force, educating clinicians, developing new products, strengthening our clinical foundation, and increasing awareness in the broader medical community.

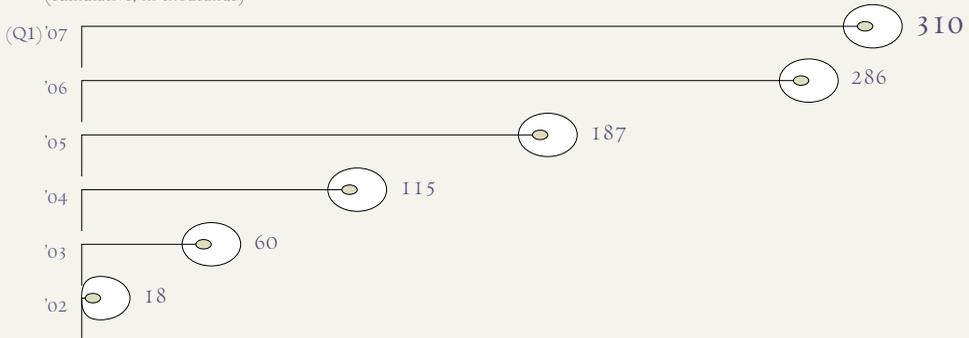
We added 90 professionals to our global field sales organization in 2006, giving us approximately 480 sales professionals deployed worldwide—20% more than we had in 2005. We believe it's the industry's largest direct minimally invasive spine sales force, and we expect it will grow another 25% by the end of 2007.

Last year, we trained more than 2,400 clinicians worldwide in the balloon kyphoplasty procedure, well ahead of our original target of 1,800. This reflects the strong interest we continue to see

Fractures Treated Worldwide
(cumulative, in thousands)



Patients Treated Worldwide (cumulative, in thousands)



from orthopaedic surgeons, neurosurgeons, and the interventional radiology community. We have now trained about 11,000 spine specialists in using our products to perform balloon kyphoplasty, helping make certain that the procedure is available to those VCF patients who can benefit from it.

We were delighted to see the first prospective, multi-center, two-year follow-up results for balloon kyphoplasty published in the September 1, 2006 issue of *Spine*, the leading subspecialty journal for the treatment of spinal disorders. These results, which included data from 19 U.S. centers, revealed immediate benefits of balloon kyphoplasty using multiple outcome measures, as well as two-year follow-up data in 100 patients that showed those significant benefits were sustained. Importantly, no major adverse device- or procedure-related complications were reported.

Through targeted investments—such as sponsorship of an exclusive WebMD Health Zone—we have raised the awareness of and educated referring physicians and patients on the benefits of balloon kyphoplasty and the difference it can make in improving quality of life. In 2006, our patient awareness initiatives generated more than 35 million Web site impressions, including 400,000 unique visits to our kyphon.com Web site.

While balloon kyphoplasty remains our core business, we are also focused on building our product portfolio to enable the fulfillment of our mission. For example, our acquisition of InnoSpine in January 2006 brought with it the Discyphor™ Catheter System for performing the Functional Anaesthetic Discography™, or F.A.D.™, procedure. One year after acquiring InnoSpine, we are more convinced than ever that the F.A.D.™ procedure has the potential to change the way the source of low back pain is diagnosed.

We truly have achieved a great deal this past year and the Kyphon team has much to be proud of. But what's even more exciting is that there is so much more that we can and will achieve.

Accomplishments prepare us for the future

The work we did in 2006—combined with the investments we have made over the past several years—provides the breadth our company needs to accommodate even more significant growth. We made advances in virtually every area, from reimbursement and clinical trials to manufacturing and research and development.

We saw the U.S. Medicare outpatient reimbursement rate for kyphoplasty increase by 52% effective January 1, 2007 in recognition of the true costs associated with the procedure and

the benefits it provides. We also made progress with governmental authorities in several other countries, including the United Kingdom, where the National Institute for Health and Clinical Excellence issued a positive recommendation for balloon kyphoplasty.

Our ambitious clinical trial agenda showed significant progress, with increased patient enrollments and important scientific presentations and publications. Our Japan registry trial completed enrollment in March 2007—exciting news because this country represents the second largest market opportunity for balloon kyphoplasty. We are working closely with the Japanese Ministry of Health to secure regulatory approval and hope to begin commercialization in Japan by 2009.

In terms of manufacturing, our “lean” initiatives—designed to support a global supply chain through streamlined processes and improved productivity—continued to show great results. In anticipation of expected strong growth in our international markets, we are on track to begin manufacturing products in 2008 at our Neuchâtel, Switzerland facility currently under construction.

Our research and development activities are focused on generating novel new products and therapies designed to advance minimally invasive-based technologies for improving patient outcomes, with high safety profiles and reduced costs to health care systems. We look forward to reporting more on these exciting initiatives in 2007.

Three platforms for growth

Spinal fracture management and repair remains our core business, and balloon kyphoplasty remains a solid growth platform for the future. Our acquisitions in 2006, along with our own product development initiatives, have enabled us to add two new minimally invasive-based product platforms.

The first of these, disc disease diagnosis and therapy, includes the F.A.D.[™] technology I mentioned earlier. We also have programs underway in minimally invasive fusion and disc repair that will help us address the very large and underserved market of people who suffer from discogenic back pain.

Our third platform for growth is spinal motion preservation. In January 2007, we closed the acquisition of St. Francis Medical Technologies, manufacturer of the X-STOP[®] IPD[®] Interspinous Process Decompression System. The X-STOP[®] System is the first interspinous process implant approved in the U.S. for treating lumbar spinal stenosis, or LSS. We believe more than 1.4 million people in the U.S. suffer from LSS each year. The X-STOP[®] System represents a new treatment approach that provides physicians and patients with a safe and effective implant alternative that can preserve future treatment options. In Europe, we are in the initial stages of launching our Aperius[™] PercLID[™] Percutaneous Lumbar Interspinous Decompression system, our internally developed percutaneous product for the treatment of LSS. The Aperius[™] product is intended to simplify the surgical procedure while providing the same benefits and mechanism of action as the X-STOP[®] device.

What we plan to do in 2007

First, we will conclude our integration of the operations of St. Francis Medical Technologies into Kyphon. I'm happy to report that nearly all activities have been successfully transitioned ahead of original expectations. We are accelerating the training of clinicians to perform the X-STOP[®] IPD[®] procedure and expect to train more than 1,800 in the U.S. alone in 2007.

Second, we will work toward closing the two previously announced asset acquisition transactions

with Disc-O-Tech Medical Technologies, Ltd. so we can add these technologies to our product offerings.

Third, we will continue building the clinical foundation for our products, including furthering and completing trial enrollments, submitting for publication one-year follow-up results from the first ever prospective, randomized clinical trial comparing balloon kyphoplasty to non-surgical management, and supporting exciting new studies for our F.A.D.[™], X-STOP[®] IPD[®], and Aperius[™] PercLID[™] products.

Fourth, we will implement new patient and primary care physician awareness and education programs to increase the global penetration of balloon kyphoplasty. There are more than one million diagnosed spinal fractures that occur each year in the U.S., Europe, and Japan, so we see substantial opportunities for growth in our core business.

And finally, we will continue to scale and globalize the company's infrastructure and organizational depth and breadth to support our growth and profit goals. This includes hiring more top talent to drive our initiatives, implementing automated information technology systems to enable expansion with improved efficiencies, and establishing additional capabilities in new geographies.

We're excited about the future

We're at an exciting point both for the company and the industry. We have great opportunities in markets that are underpenetrated and genuinely in need of what we have to offer. We have an industry-leading sales force providing innovative

solutions for our clinician customers and their patients. We have growing momentum in R&D, clinical research, reimbursement, and operations. We have strong intellectual property positions and compliance functions and are continuing to invest to fortify them.

This is simply a great time to be part of Kyphon and our employees feel the same excitement. Our people are terrific, and they do amazing things every day all over the world. We have a very engaged company that appreciates where we are, knows what we have to accomplish, and is motivated with the right skill sets to get those things done. I know that every member of the Kyphon family appreciates the trust our shareholders, customers, and importantly, patients, place in us, and we greatly value their support.

We believe the future is truly bright, we have much to achieve and we will not hesitate.

Thank you and sincerely,



Richard W. Mott
President and Chief Executive Officer

Corporate Information

Management Team

Richard W. Mott

President and Chief Executive Officer

Karen D. Talmadge, Ph.D.

*Executive Vice President, Co-Founder
and Chief Science Officer*

Arthur T. Taylor

Vice President, Chief Operating Officer

Robert A. Vandervelde

President, International

Maureen L. Lamb

Vice President, Chief Financial Officer

David M. Shaw

*Vice President, Legal Affairs,
General Counsel and Secretary*

Godelieve Boucqué

*Vice President, International
Human Resources*

Brigitte Casteels

*Vice President, International Healthcare
Policy and Government Relations*

Alexandre M. DiNello

Vice President, Research and Development

Avram A. Edidin, Ph.D.

Vice President, Scientific Affairs

Michel Fouquaet

*Vice President, International
Business Operations*

Frank P. Grillo

*Vice President, Marketing,
Strategy and Business Development*

Mary K. Hailey

*Vice President, Health Care Policy
and Government Relations*

Stephen C. Hams

Vice President, Human Resources

Richard Heaslip

*Vice President, International
Emerging Markets*

Robert E. Johnson

Vice President, Chief Compliance Officer

Rick S. Kline

Vice President, Operations

Bradley W. Paddock

Vice President, U.S. Sales

Elizabeth A. Rothwell

*Vice President, Quality Assurance and
Regulatory Affairs*

Eric Schaber

*Vice President, International
Commercial Operations*

Julie D. Tracy

*Vice President,
Chief Communications Officer*

Clemens Troche

*Vice President, International
Marketing and Business Development*

Eddie Van Eeckhoven

*Vice President, International Clinical
Research, Regulatory Affairs and Quality*

Board of Directors

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*Chairman of the Board of Directors
J & A Group, LLC*

Stephen M. Campe

*Director
Managing Director
Investor Growth Capital, Inc.*

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*Director
President and Chief Executive Officer
Tornier Inc.*

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Former Executive Vice President and
Chief Financial Officer
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Professor of Orthopaedic Surgery
Rush University Medical Center*

Elizabeth H. Weatherman

*Director
Managing Director
Warburg Pincus, LLC*

Richard W. Mott

*President and Chief Executive Officer
Kyphon Inc.*

Karen D. Talmadge, Ph.D.

*Executive Vice President, Co-Founder
and Chief Science Officer
Kyphon Inc.*

Annual Meeting

Kyphon's annual meeting
will be held at 2:00 p.m.
PDT, June 14, 2007 at
Kyphon's corporate offices,
1221 Crossman Avenue,
Sunnyvale, California 94089.

Additional Information

Corporate Counsel

Latham & Watkins LLP
Menlo Park, California

Public Accounting Firm

PricewaterhouseCoopers LLP
San Jose, California

Stock Transfer Agent

**U.S. Stock Transfer
Corporation**
1745 Gardena Avenue, Suite 200
Glendale, California 91204
Phone: 818.502.1404

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1221 Crossman Avenue
Sunnyvale, California 94089
USA
408.548.6500
www.kyphon.com