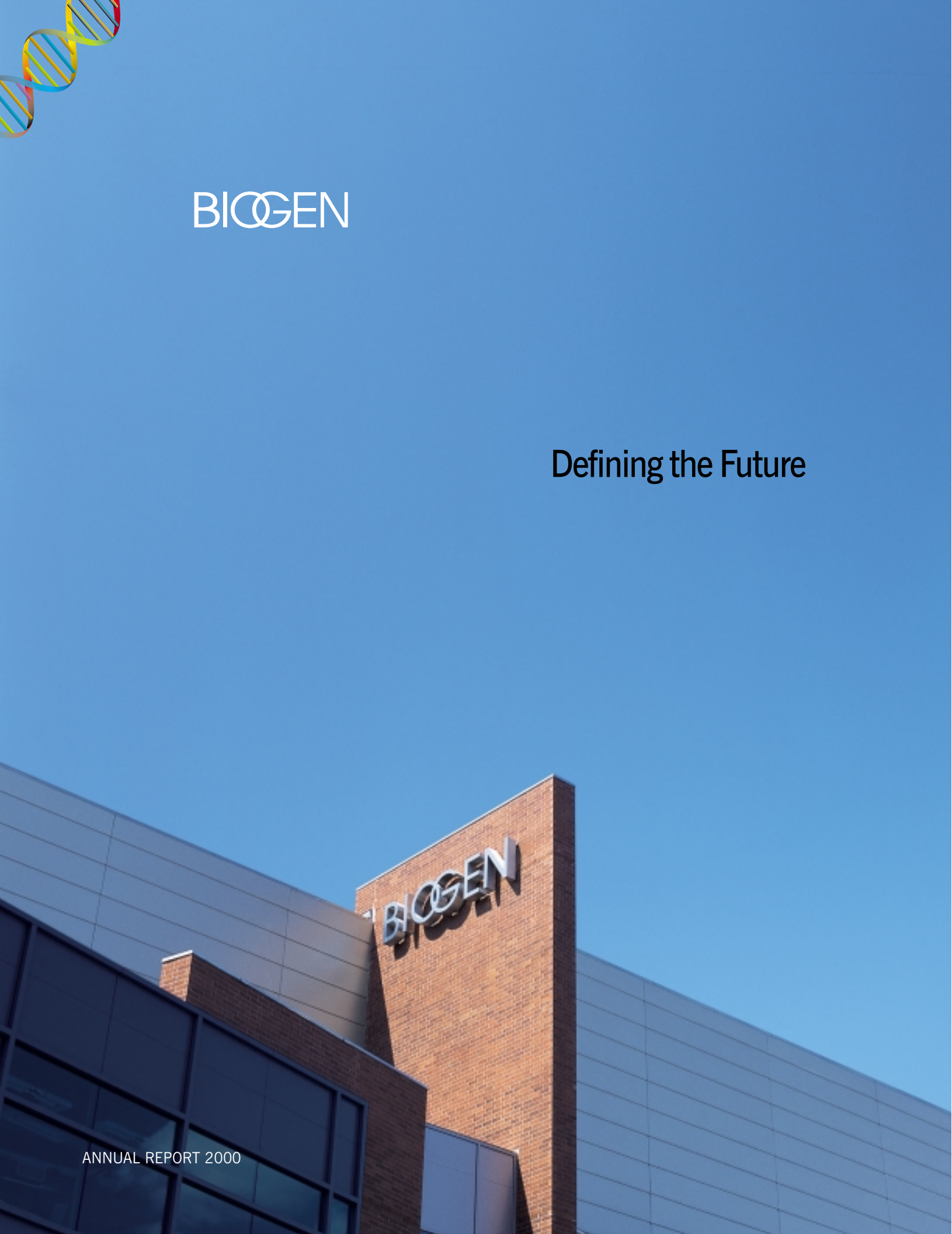
BIOGEN

Defining the Future



ANNUAL REPORT 2000

BIOGEN

IMPORTANT NOTE TO SHAREHOLDERS

In addition to historical information, this Annual Report contains forward-looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. Reference is made in particular to statements regarding expectations as to future financial results, including the potential growth of the market for AVONEX®, the potential efficacy and uses of products in development, the timing of anticipated and ongoing clinical trials, expectations regarding trial results, regulatory filing and product launch of AMEVIVE™, anticipated availability of future manufacturing capacity, the description of the Company's plans, goals and objectives for future operations and future product development, assumptions underlying such plans, goals and objectives and other forward-looking statements included in the Letter to Shareholders, "Management's Discussion and Analysis of Financial Condition and Results of Operations" ("MD&A") and other sections of this Annual Report. Such statements are based on management's current expectations and are subject to a number of factors and uncertainties which could cause actual results to differ materially from those described in the forward-looking statements. In particular, careful consideration should be given to cautionary statements made in MD&A, including under the heading "Outlook" and in the business section of the Company's Form 10-K under the heading "Risks Associated with Drug Development."

To Our Shareholders

James C. Mullen
President and
Chief Executive Officer

James L. Vincent
Chairman of the Board

During the past year, Biogen made enormous strides in maintaining our AVONEX® (Interferon beta-1a) market leadership, moving our pipeline compounds closer to market, and refocusing our research program to capitalize on the advances of the genomics revolution.

We made significant progress in every key area of our business:

• AVONEX® maintained its leadership position in the highly competitive multiple sclerosis (MS) marketplace. Approximately 100,000 patients throughout the world are on AVONEX treatment.

• We announced more data about AVONEX than in any year since product launch. Everything we have learned confirms the importance of this drug in the treatment of MS.

• We made significant progress in our clinical development programs. In January 2001, we announced positive results of the Phase II trials of ANTEGREN® (natalizumab) in MS and Crohn's disease. We expect to begin Phase III trials in both indications later this year. We are collaborating with Elan Corporation on the development of this promising drug.

• We will report results of the Phase III clinical trials of AMEVIVE™ (alefacept) in chronic plaque psoriasis during the first half of 2001. Data from our Phase II trials were very encouraging. Psoriasis is the kind of focused and underserved market that we understand. There is considerable commercial potential for a novel therapy in this indication, and we believe AMEVIVE can do very well in this marketplace.

• We focused our research efforts, identifying four key areas that combine considerable market potential with Biogen's competitive research advantages. We now have 20 research projects underway in the areas of immunology, cancer, neuroscience and fibrosis. We also made great strides in transforming our research organization to respond to and anticipate the opportunities and challenges generated by the genomics era.

• We delivered on our financial goals. On an operating basis, Earnings Per Share were $1.75, an increase of 20 percent over 1999. Reported Net Income for 2000 was $334 million, or $2.16 per share. Total Revenues

Biogen's Strategy for Building Our Company and Increasing Shareholder Value

were $926 million, compared to $794 million in 1999. Total AVONEX Sales were $761 million, an increase of 23 percent over 1999.

With the successful introductions of AVONEX in the U.S. and Europe in 1996 and 1997, Biogen fulfilled its initial mission and vision of becoming an independent, global biopharmaceutical company.

Our next challenge is clear:

To transition from a one-product company into a multi-product company with sustainable growth based on constant introduction of important novel therapeutics.

The essay section of this book features comments by several of Biogen's key leaders, who describe how we are approaching the challenges of bringing our organization to the next level.

We learned many important lessons through the development and commercialization of AVONEX and these will stand us in good stead as we move forward with our next generation of products.

For example, the sales and marketing model we developed for AVONEX is easily reproducible. This model is empowered, efficient and global. It is customer driven and patient focused, reflecting the empowerment of patients and their increasing partnership with their physicians in making healthcare decisions. One example is found in the number of calls that come in each day to our Customer Support lines. Five years after AVONEX market entry, we still receive more than 1,600 calls a day – an extraordinary level of patient interest.

We gain additional commercial leverage through our highly efficient sales model. Members of our field force, known as Area Business Managers, effectively run small, independent businesses. Annual revenue per AVONEX Area Business Manager is more than $8 million, compared to a U.S. industry average of $1 million.

This sales and marketing model is important not only for AVONEX, but also because it can be reproduced as our next generation of drugs comes on line. We can hire and train new specialty sales forces very rapidly in the kinds of focused markets that we understand so well. We are already making plans for AMEVIVE based on our highly successful AVONEX model.

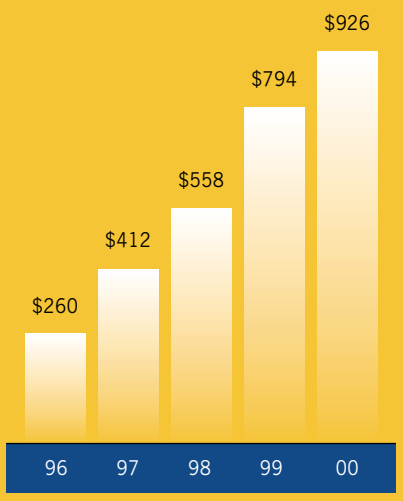
We spent a great deal of time refocusing our strategic research model. During the past few years, there has been a major paradigm shift in biology that will lead to major changes in the way drugs are discovered and developed. The mapping of the human genome and the surrounding technologies that have emerged from this effort will have a profound impact on our industry. Biology is still the basis of this industry and is Biogen's fundamental strength. Our research strategy is in place and has already generated a number of exciting new programs. Our challenge is to execute on this strategy to ensure a steady stream of pipeline drugs.

The number of new partnerships and collaborations announced during the past year underscores our increasing emphasis on business development efforts.

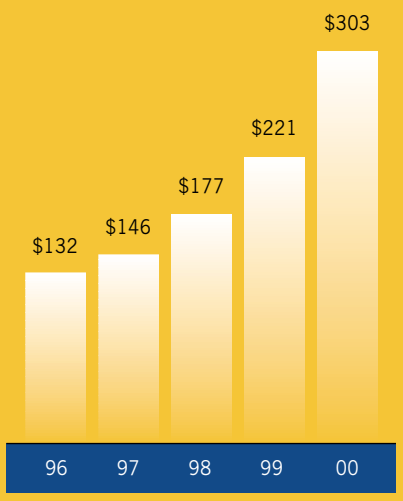
Selected Financial Information

Biogen, Inc. and Subsidiaries

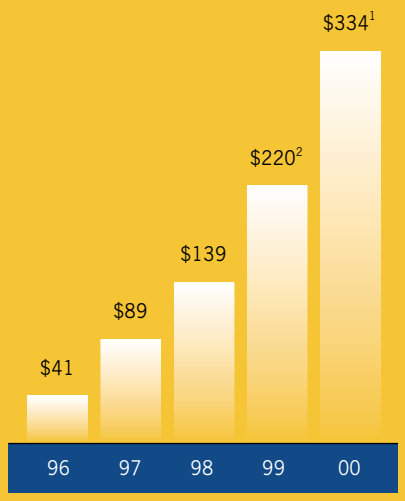
Total Revenues



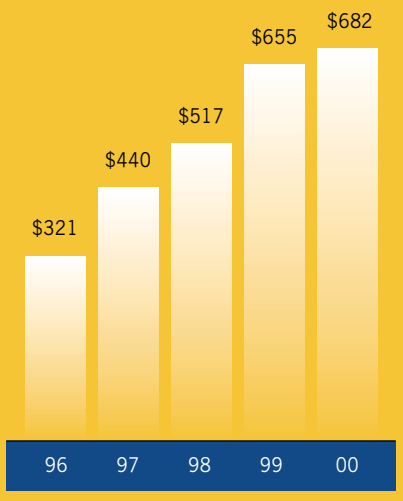
Research and Development



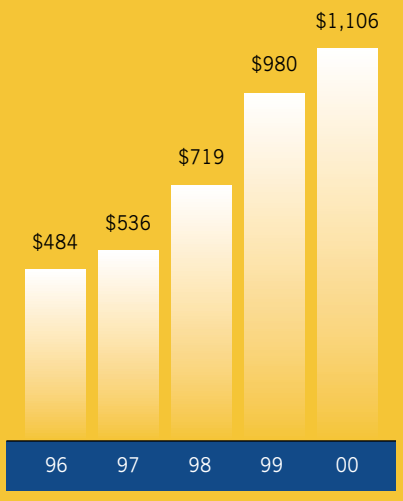
Net Income



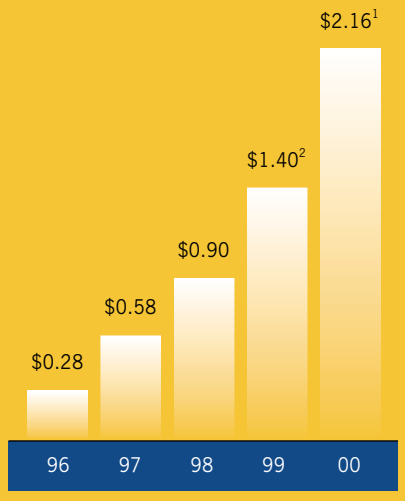
Cash and Investments



Shareholders' Equity



Diluted Earnings per Share



Dollars in millions, except for Diluted Earnings per Share.

[1] Includes the effect of non-operational net pre-tax gains of $101 million, or $0.41 per share. [2] Includes the effect of a charge for the write-down of non-current marketable securities of $15 million, or $0.06 per share.

We are collaborating with Elan Corporation on ANTEGREN. In 2000, we began collaborating with Eos Biotechnology to identify targets and develop therapeutics for the treatment of breast cancer. We also in-licensed Neublastin from NsGene of Denmark and are now studying this molecule's potential in the treatment of peripheral neuropathies. Among our many other collaborations are a series of research agreements that enable us to access promising genomics technologies.

Biogen is also an industry leader in manufacturing. With the explosion of biopharmaceutical drugs in the clinical pipeline, the industry is beginning to experience shortages of manufacturing capacity. Biogen has built ahead of need. Our large-scale manufacturing facility currently under construction in Research Triangle Park, North Carolina, will give us capacity in excess of 100,000 liters by 2002. We will continue to be able to manufacture our expanding portfolio from research through commercial stages. This makes us a strong partner and gives Biogen a unique competitive advantage over other biopharmaceutical companies.

Because of our strong financial base, we have been able to make necessary and timely strategic investments in critical areas like manufacturing and bioinformatics.

Today, Biogen has in place the world's leading drug for multiple sclerosis, and several promising product candidates, the first of which, if results are good, should begin to reach the market in 2002. In addition, we have a dynamic research pipeline that capitalizes on our historic strength in biological research. Combined with our outstanding financial profile and a committed and dedicated group of employees, we are confident of meeting our objectives for the coming years.

James C. Mullen
President and
Chief Executive Officer

James L. Vincent
Chairman of the Board

February 6, 2001

A word from Jim Vincent . . .

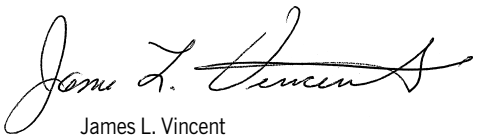
The annual Letter to Shareholders is written jointly by Jim Mullen, Biogen's Chief Executive Officer, and me. It reports on our organization's progress during the past year.

I am taking this opportunity to underscore the importance of the management transition in 2000 and the quality of the individual leading Biogen through its next major period of growth.

Jim Mullen joined our Company in 1989 as Director, Facilities and Engineering, and was named Vice President, Operations, in 1992. From 1996 - 1999, he served as Vice President, International, with responsibility for building all Biogen operations outside North America.

From the beginning, it was apparent that Jim is an executive of exceptional quality, combining high intelligence with discipline, vision and exceptional leadership skills. His many accomplishments include creating our manufacturing and distribution operations, building our business operations outside the U.S. and successfully registering and launching AVONEX throughout Europe. In his many different assignments, Jim has consistently demonstrated his ability to identify, inspire and retain exceptionally talented individuals, as well as the ability to lead large and diverse organizations and manage complex situations.

In my years with Biogen, I have watched our Company evolve from a research boutique to one of the world's leading global biopharmaceutical organizations. We are now in one of the most exciting times of our history, as we meet the challenges of bringing the organization to its next operating level. I am delighted an executive of Jim Mullen's caliber is leading us at this critical time in our Company's evolution.



James L. Vincent
Chairman of the Board

Biogen Product Portfolio

PROPRIETARY DRUGS	RESEARCH	PRE-CLINICAL	CLINICAL TRIALS	ON THE MARKET
AVONEX® (INTERFERON BETA 1-A)				
Relapsing Forms of MS				65+ countries including U.S., Europe, Canada
Monosymptomatic MS (CHAMPS)				Worldwide regulatory review pending
Dose Comparison MS			Phase III*	
Secondary Progressive MS			Phase III*	Worldwide regulatory filing pending
Primary Progressive MS			Pilot Study*	
Inhaled Formulation			Phase I	
Liquid Prefilled Syringe			Phase I	
AMEVIVE™ (ALEFACEPT)				
Moderate-to-Severe Psoriasis			Phase III*	
Rheumatoid Arthritis			Phase II	
ADENTRI™ (ADENOSINE A_1 RECEPTOR ANTAGONIST)				
Congestive Heart Failure			Phase I	
ANTEGREN® (NATALIZUMAB)				
MS			Phase II*	
Crohn's disease			Phase II*	
LT BETA RECEPTOR ANTAGONIST				
Autoimmune			Phase I	
INTERFERON BETA GENE THERAPY				
Oncology		Preclinical		
LT BETA RECEPTOR MONOCLONAL ANTIBODY				
Oncology		Preclinical		
RESEARCH	20 active research programs			

* Completed

OUT-LICENSED DRUGS		CLINICAL TRIALS	PENDING REGULATORY APPROVAL	ON THE MARKET
INTRON® A (INTERFERON ALFA-2B, RECOMBINANT)	**SCHERING-PLOUGH**			
Hepatitis B and C, certain cancers				Global
HEPATITIS B VACCINES	**GLAXO SMITHKLINE, MERCK**			Global
HEPATITIS B DIAGNOSTICS	**ABBOTT AND OTHERS**			Global
ANGIOMAX™ *(formerly Hirulog®)*	**THE MEDICINES COMPANY**			
Angioplasty			Awaiting European regulatory review	U.S., New Zealand
Acute coronary syndromes				
GAMMA INTERFERON	**SHIONOGI**			Japan
IL-2	**SHIONOGI**			Japan