



Letter to Shareholders  
Vertex Pharmaceuticals  
2008

## Dear Shareholders,

Vertex is targeting some of the world's most devastating diseases in new and unconventional ways. Our work is difficult, expensive and takes years to complete, but the results could have a profound impact on human health worldwide. The challenge of generating and bringing true medical breakthroughs to the marketplace is exhilarating, and it drives our people and our culture.

Vertex's pipeline contains a number of investigational drugs that could fundamentally change how some serious diseases are treated. These drug candidates include oral compounds targeting the basic biochemical defects responsible for cystic fibrosis, a potential new treatment for inflammatory diseases that suppresses the immune response in a novel, highly selective way, and other compounds targeting new disease mechanisms - all real innovations and potentially major leaps in treatment.

Today, however, no drug in our pipeline commands more attention than our hepatitis C virus (HCV) protease inhibitor, telaprevir. And for good reason. Unprecedented results presented for telaprevir have begun to change conventional thinking around hepatitis C treatment. The idea that shortened HCV therapy could significantly increase cure rates for patients is now more possible than ever before.

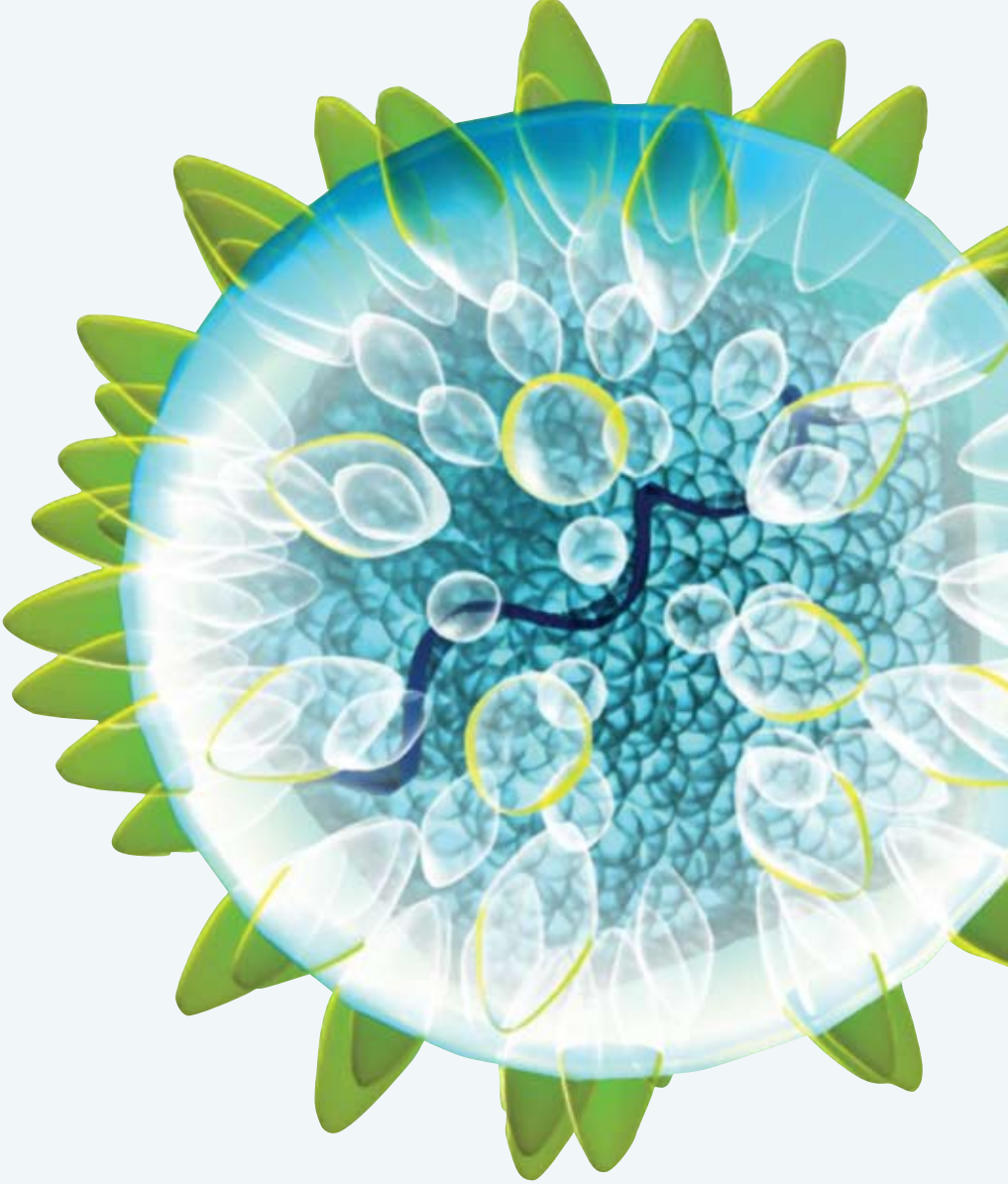
Earlier this year, we initiated the Phase 3 ADVANCE clinical trial of telaprevir designed to confirm the encouraging Phase 2 results presented to date for telaprevir. We continue to invest to build the capabilities needed to fully realize this unique, first-to-market opportunity. We have assembled a global supply chain to manufacture telaprevir, and we have begun to build the infrastructure to support what we believe could be a significant commercial launch. We also aim to follow the success of telaprevir with second-generation compounds that can extend and enhance our leadership position in HCV.

We seek to make profound changes with our innovations. It's an approach that is helping us to build a new type of pharmaceutical company. That's our goal, and we're on our way. I look forward to updating you as the year progresses.

I thank you for your continued support of Vertex.



Joshua Boger, Ph.D.  
President and CEO, Vertex Pharmaceuticals Incorporated  
March 28, 2008



Hepatitis C Virus  
Vertex Pharmaceuticals  
2008

## Gaining Ground in the Race Against Hepatitis C Virus

The medical and societal burdens of the hepatitis C virus (HCV) continue to grow at alarming rates. While current therapy has improved outcomes for patients, HCV remains a major global health threat.

Currently, approximately 3.4 million people in the U.S. are infected with HCV – a viral infection that can cause progressive liver damage. More than two million of those people remain undiagnosed and untreated. In individuals infected with genotype 1 HCV, the most common and difficult to treat form of the virus, currently approved therapy takes 48 weeks and results in eradication of the virus, also known as a sustained viral response (SVR), in only 40-50% of those who undergo treatment. Those who fail treatment or go untreated remain at risk for multiple HCV-related complications.

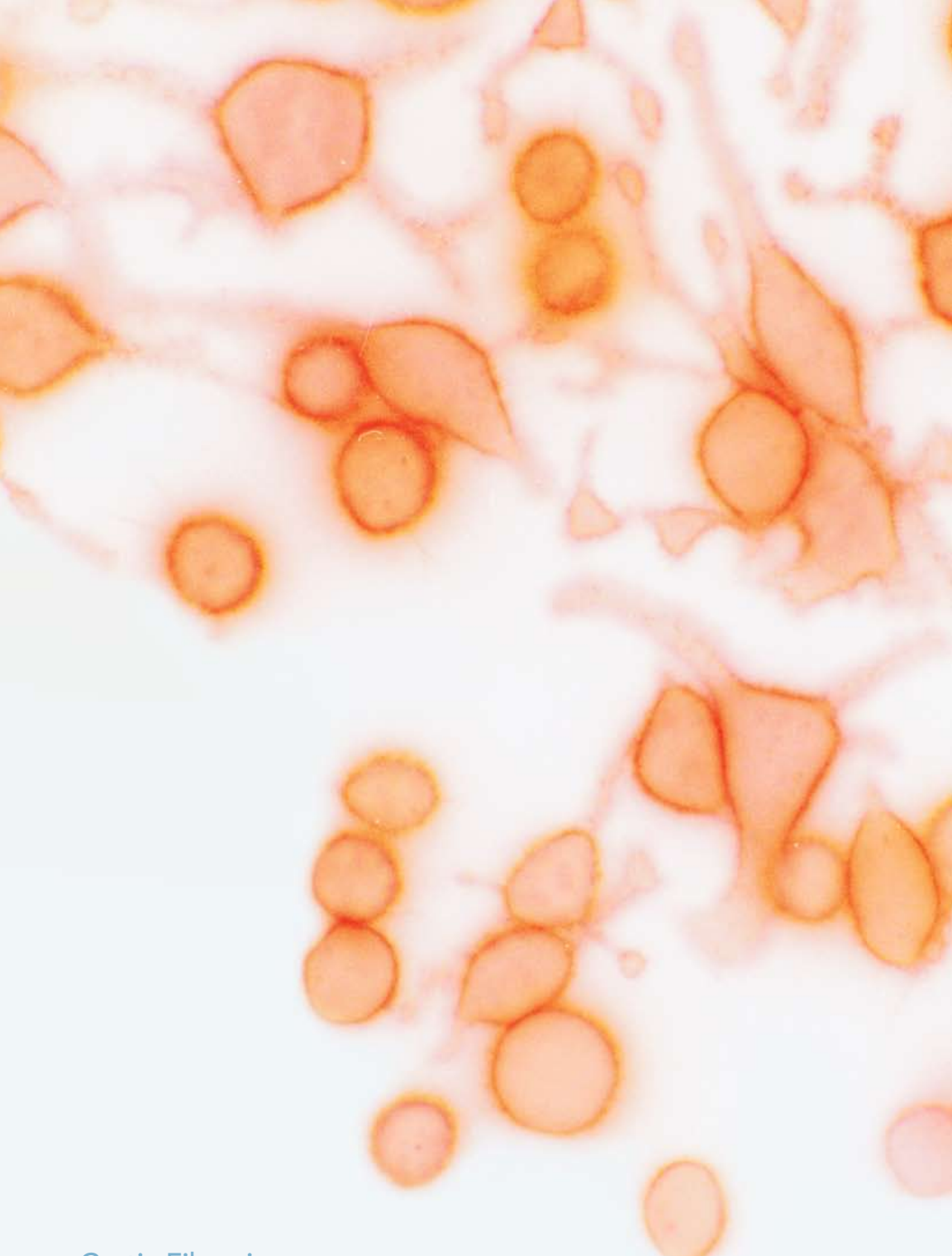
Without improved treatment options, researchers believe that the burden of HCV, both on patients and on the health care system, will continue to rise dramatically in the coming years. New and more effective treatments are urgently needed to stem the future disease burden of HCV-related liver failure, hepatocellular carcinoma and liver-related deaths.

### Leading the Development of HCV Protease Inhibitors

Telaprevir is the leading, specifically-targeted antiviral therapy (STAT-C) in development for the treatment of HCV infection. Telaprevir inhibits the activity of the HCV protease, an essential enzyme in HCV replication.

Clinical data presented to date indicate that treatment-naïve genotype 1 patients treated with telaprevir, in combination with pegylated interferon and ribavirin, can achieve a high rate of rapid viral response with a low rate of viral breakthrough, leading to a greater than 60% rate of SVR with 24 weeks of therapy – half the duration of currently approved HCV treatments. Telaprevir entered Phase 3 clinical development in early 2008 for treatment-naïve patients with genotype 1 HCV.

As part of Vertex's commitment to improve treatment options for patients with HCV, the Company is also studying telaprevir in other patient populations and is developing second-generation HCV protease inhibitors. In early 2007, Vertex initiated a Phase 2b clinical trial of telaprevir in more than 400 patients who failed to achieve SVR with a previous interferon-based treatment regimen, and in early 2008, the Company began clinical development of a second-generation HCV protease inhibitor, VX-500.



Cystic Fibrosis  
Vertex Pharmaceuticals  
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## Changing the Treatment of Cystic Fibrosis

In the last 25 years, the median predicted age of survival for people with cystic fibrosis (CF) has more than doubled to 37 years of age. But 37 years is still far too short a lifespan for any person, and we want to change the outlook for those with CF.

Cystic fibrosis is an inherited disease that results in lifelong, progressive deterioration of the lungs and affects about 70,000 people worldwide. In patients with CF, mutations in the Cystic Fibrosis Transmembrane Conductance Regulator (CFTR) gene result in either missing or malfunctioning CFTR proteins on the cell surface. These defective CFTR proteins are believed to adversely affect the transport of chloride and other ions across cell membranes leading to the accumulation of thick, sticky mucus in the lungs of patients with CF.

Current therapies that treat the symptoms of CF have dramatically improved the lives of patients. However, no treatment currently exists that targets the underlying disease mechanisms of CF.

### Two Novel Approaches to CF Therapy

VX-770 is an investigational potentiator compound designed to increase ion channel activity of defective CFTR proteins on the cell surface. Allowing defective CFTR proteins on the cell surface to act as normal “gates” that permit chloride to flow in and out of the cells may help normalize fluid transport. VX-770 entered Phase 2a clinical development in mid-2007.

VX-809 is an investigational corrector compound designed to increase the “trafficking” of defective CFTR proteins to the cell surface. An increased concentration of functional CFTR protein channels on the cell surface may also help normalize fluid transport in and out of the cell. VX-809 entered Phase 1 clinical development in early 2008.

### Collaborating to Advance New CF Therapies

Vertex initiated its CF research program in 1998 as part of a collaboration with Cystic Fibrosis Foundation Therapeutics, a non-profit, donor-supported drug discovery and development affiliate of the Cystic Fibrosis Foundation. This unique collaboration resulted in the advancement of both VX-770 and VX-809 from research into clinical development.



Destination Vertex  
Vertex Pharmaceuticals  
2008

## Destination Vertex

What if every day you could work, dream, share and grow while contributing to the discovery of life-saving medicines? What if everyone not only has a say, but is rewarded for speaking up? What if each day feels more like an experience than a job and where quality of life is a way of life? This is the culture we seek at Vertex.

Today, we are larger than ever before, with more than 1,200 of the industry's best and brightest people working to bring about tomorrow's next breakthrough in medicine. They have come to Vertex for varied reasons, but remain here because all of our employees have the opportunity to make a major impact. Impact exists in all shapes and sizes, but Vertex employees are part of one team focused on one collective, yet lofty, goal: to transform lives with new medicines.

Vertex is not just about hard work. We also like to have fun along the way, and we encourage our employees to create a healthy work-life balance. Vertex is one of the first biotechnology companies to offer four standard weeks of vacation from an employee's first day at the Company. In addition, Vertex recognizes and supports its talented employees, offering continuous opportunities for growth and development within the organization. The dedication of our workforce is not only evidenced within the walls of Vertex, but also in our surrounding communities where countless Vertex employees, families and friends participate in community events and activities. In 2007, for example, more than 300 members of "Team Vertex" took part in the Great Strides Walk to benefit the Cystic Fibrosis Foundation. Going above and beyond the norm is simply part of who we are.

### Not Just Another Company

Without our talented people, Vertex might be just another company with just another mission. But we do not settle for "just another." We seek dramatic change in all we do, and it's our people who are working to get us there.

Pictured on front (from left to right): Youssef, Amanda, James, Ravi and Rieko. All employees at Vertex Pharmaceuticals Incorporated.

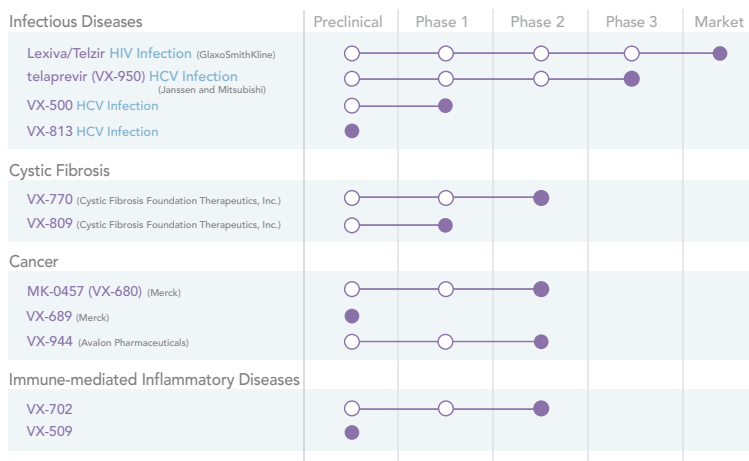


Development Pipeline  
Vertex Pharmaceuticals  
2008

## The Vertex Development Pipeline

Innovation is the key driver in all of Vertex's research and discovery efforts. We seek major steps forward in the treatment of the world's most serious diseases, as evidenced in all the compounds across our broad pipeline.

In addition to HCV and CF, Vertex is developing compounds targeting diseases such as cancer and immune-mediated inflammatory diseases. All of these compounds are the result of Vertex-led innovation from our research and development sites in Cambridge, MA, San Diego, CA and Milton Park, U.K. Behind our development pipeline, tuberculosis, neurodegenerative diseases and pain are but a few of our early discovery and research interests. Vertex's business model is structured so that compounds emerging from research provide key product development and collaborative opportunities for the years ahead.



For more detailed and up-to-date information on Vertex product candidates in development, please see Vertex's website at [www.vrtx.com](http://www.vrtx.com) or Vertex's 10-K, 10-Q and 8-K filings.



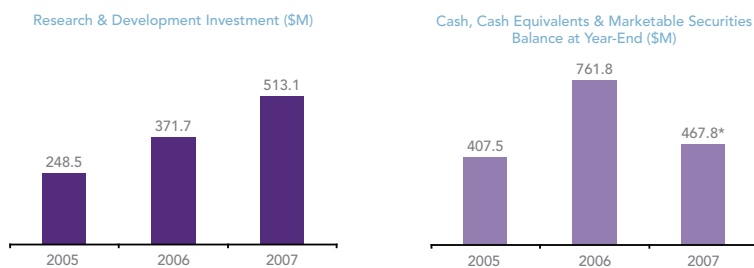
Financials  
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2008

## Investing in Pipeline Opportunities

With telaprevir, Vertex has a major first-to-market opportunity. To fully capitalize on this opportunity and deliver value to shareholders, Vertex continues to invest in the telaprevir clinical development program as well as other business functions that will support late-stage development and commercialization of telaprevir. Our business model provides significant collaborative revenue, allowing Vertex the ability to balance its investment across other compounds the Company believes it can commercialize independently.

In the first quarter of 2008, we raised approximately \$390 million, further adding to our 2007 year-end cash position of approximately \$470 million. As the year progresses, we expect to receive development milestones from collaborators that will provide continued support for research and development programs, and we may also enter other collaborative relationships to further strengthen our financial position.

Drug development requires significant investment and a long-term vision. It's not for the shortsighted or the faint of heart. It is, however, for those who believe that with the necessary commitment and financial resources, a company such as Vertex can truly make an invaluable difference to human health.



\*In the first quarter of 2008, Vertex raised approximately \$390 million in net proceeds in a public offering of common stock and convertible senior subordinated notes, which is not included in the year-end 2007 figure.

These data are derived from our consolidated financial statements. Our audited consolidated financial statements, including the related footnotes and "Management's Discussion and Analysis of Financial Condition and Result of Operations," are included in our 2007 Annual Report or Form 10-K.