

Big Science

The best biomedical hubs may be driven by, of all things, the science itself.

by ADAM BRUNS

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There is a science to site selection. But rarely do the specifics of science itself so directly impact a location choice.

In late April, one day apart, new protease inhibitor drugs developed by both Merck & Co. and by **Vertex Pharmaceuticals** to treat Hepatitis C in combination with other drugs were to be reviewed by a U.S. Food and Drug Administration panel. Both companies expect a final decision by the time school's out for the summer. Hanging in the balance, contingent on the FDA decision, is Vertex's non-binding letter of intent, signed in January with prominent Boston developer The Fallon Co., to relocate its headquarters to twin office towers in a new US\$2-billion downtown Boston waterfront complex called Fan Pier. Backed by incentives from the state and the Boston Redevelopment Authority, the project has been in the works for well over two years, delayed in part by Fan Pier's tenant and financing challenges resulting from the credit crunch. Fallon first broke ground on the overall development in 2007.

Approximately 170,000 Americans are diagnosed with hepatitis C each year. Results from trials of both new drugs, shared during an international conference on viral hepatitis held in Baltimore in April, showed great promise. Analysis by **EvaluatePharma**, a U.K.-based life

sciences analysis firm which itself just located its U.S. headquarters office in Boston, puts the two in perspective: The net present value of Merck's drug candidate is equal to approximately 3 percent of its market cap of \$104.6 billion. The net present value of Vertex's product is equal to 77 percent of its market cap of \$9.65 billion.

"As FDA advisory committee decisions go, they do not come much bigger," EvaluatePharma wrote in an April 19 analysis of the two-day review process, calling Vertex's looming product launch the biggest of 2011 and "transformational" for the company. "Expectations for approval are very high for both telaprevir and Merck & Co's boceprevir, with hep C specialists already looking beyond approval and focusing on how best to use them in daily clinical practice," the report said. "With a chronic disease course, unmet medical need, dissatisfaction with current therapies and demonstrated efficacy, anything less than unanimous approval of both drugs would be a big surprise." Based on reported side effects and other factors, EvaluatePharma calls for Vertex's product to be the big winner in the marketplace.

Should the FDA decision be favorable for telaprevir, Vertex will relocate as many as 1,800 employees to a new office building at Fan Pier from an array of

The Fallon Co.'s Fan Pier development, shown here in a rendering (foreground) against the Boston skyline, may include an 1,800-employee headquarters from Vertex Pharmaceuticals, which has signed a non-binding letter of intent for the project, pending final FDA approval of a strong drug candidate for the treatment of hepatitis C.

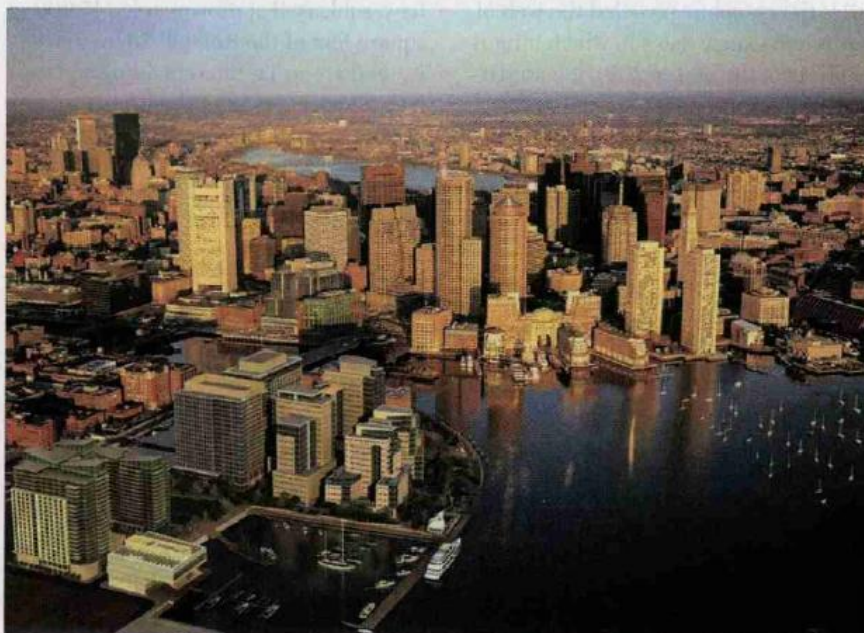




Photo courtesy of JTC Corp.

Singapore's International Business Park, developed by JTC Corp., recently welcomed a new \$97-million manufacturing plant and R&D center from Japanese contact lens maker Menicon. The city-state's biomedical sciences sector is responsible for more than \$3 billion in manufacturing output, backed by a robust infrastructure of institutions and universities.

leased space in 10 different buildings in nearby Cambridge.

Vertex spokesman Zachry Barber understandably couldn't say much more in advance of the FDA review. If the medicine's use is approved by the FDA, he said, the next step would be to "sign an actual lease agreement."

In Vertex's 10-K filed on Feb. 17, 2011, the company revealed the web of leases and expiry dates in which it finds itself. As of the end of 2010, it leased a total of 1 million sq. ft. (92,900 sq. m.) of lab and office space in Cambridge; San Diego, Calif.; Washington, D.C.; Coralville, Iowa; Montreal, Que.; and the U.K. Nearly 82 percent of that space is in Cambridge.

The leases for the headquarters space and for space adjacent to it, totaling a combined 292,000 sq. ft. (27,127 sq. m.), expire on Dec. 31, 2015, "with two options to extend for additional consecutive five-year terms, and an option to terminate the lease in December 2013, subject to certain advance notice provisions." Another 145,000 sq. ft. (13,571 sq. m.) is subleased from Alkermes, Inc., the drug therapy firm founded in Cam-

bridge in 1988. That sublease expires in June 2012 with an option to extend through 2014. Another Vertex lease in the white-hot Cambridge bioscience submarket of Kendall Square will expire in 2018.

"We have the option to extend this lease for two consecutive ten-year terms," said the company's filing. "We have subleased approximately 145,000 square feet of the Kendall Square facility, and are using the remaining square feet of space leased in the facility for our research operations. The subleases are for terms ending in 2012 and 2015 with one sublease having an extension option to 2018."

Hub of Hubs

As for the relocation, the 10-K states that the move to Fan Pier "contemplates the lease of approximately 1,100,000 square feet [102,190 sq. m.] of office and laboratory space for a period of 15 years commencing in late 2013." That happens to be the year in which EvaluatePharma's analysis calls for telaprevir to begin contributing to billion-dollar profits for the company, pending approvals in both

the U.S. and U.K.

Among the risk factors mentioned in the Vertex filing is this telling passage:

"Recently we have built out the commercial organization that will be responsible for the commercial launch of telaprevir in the United States, if it receives marketing approval. The number of our employees increased by 18 percent in 2010 and 6 percent in 2009, and we expect to experience additional growth in 2011. Because our drug discovery and development activities are highly technical in nature, we require the services of highly qualified and trained scientists who have the skills necessary to conduct these activities. In addition, we need to attract and retain employees with experience in these fields. We face intense competition for our personnel from our competitors, our collaborators and other companies throughout our industry. Moreover, the growth of local biotechnology companies and the

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