

case study  
Genzyme Corporation



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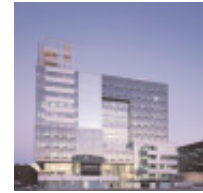
**Gordon Brailsford**  
Project Manager and Engineer,  
Genzyme Corporation



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*When Genzyme decided to build its new headquarters in Cambridge, Mass., the multinational biotechnology firm set some lofty goals. The new building had to reflect the company's core beliefs in innovation, transparency and collaboration. It had to give employees a high level of control over personal space. And it was to be the most environmentally responsible large-scale commercial office building in the country. Clearly, when it came to furniture, the standards had to be equally high: ergonomically advanced, environmentally sound, flexibly functional and stylistically impeccable.*



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## Lofty goals.

### Objectives

From its origins 20 years earlier as a small Boston biotech firm, Genzyme had bloomed into a \$1.7-billion (2003 revenues) pharmaceutical developer and manufacturer with 6,300 employees in 40 countries. About 900 employees worked in teams dispersed throughout an old renovated mill building in Cambridge, Mass. It was bursting at the seams, with scarce meeting space and inadequate accommodation for a wired workplace.

Genzyme CEO Henri Termeer decided the company needed a new headquarters in the biotech center of Cambridge— a building that would attract and retain the brightest minds in the industry just as it reflected some of Genzyme's core values: innovation, transparency and collaboration.

As a corporate headquarters, the new building presented an excellent opportunity to position Genzyme as a life sciences company that truly cares about quality of life— for the people who use its products, the people who work for it and the people who come in contact with it.

It would be one of the smartest and most environmentally responsible commercial buildings ever constructed in the United States, targeting the highest platinum rating of the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) 2.0 rating system. At the same time it would give its occupants the highest levels of control— working windows to bring in fresh air, variety in the types and uses of workspace, and versatility of furniture, direct sunlight and temperature.

### Genzyme Corp.

A global biotechnology company listed on the NASDAQ exchange, Genzyme develops innovative pharmaceutical products for the medical needs of patients with difficult diseases. Its lead product, Cerezyme, is an enzyme replacement therapy for individuals with Gaucher's disease. Other products target serious health problems such as rare genetic diseases, renal disease and orthopedic injuries. Genzyme's work demands that its 6,300 employees in 40 countries often work in diverse and productive teams, a requirement that results in Genzyme's high regard for qualities of excellence, integrity and openness.

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# In focus.

## Situation

Through a worldwide competition held in co-operation with its real estate partner, Lyme Properties LLC, Genzyme chose architects Stefan Behnisch and Martin Warminghausen of Behnisch, Behnisch & Partner of Stuttgart, Germany to design its new headquarters. Behnisch, in turn, selected Next Phase Studios, a Boston-based architectural firm, as the executive architect for the project. The 12-story Genzyme Center arose in early 2003 on one of the largest Brownfield reclamation sites in Massachusetts. The site's subsequent turnabout can only be described as a triumph of modern knowledge over the mistakes of the past.

Designed 'inside out' around the concept of a living organism, the 350,000 sq. ft. building is awe-inspiring both visually and technologically.

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*The central atrium is the living, breathing heart of the structure, housing 18 gardens with different themes and plant varieties. Intended as a place for meetings and eye contact, everyone passes through it upon entry. It contains numerous casual seating areas and sills—even coffee bars around the gardens—with terrace views and laptop connections.*

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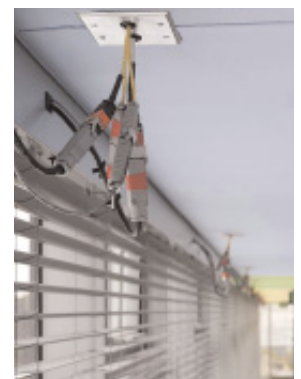
**Situation** *continued*

Meanwhile, mirrors on the roof track the sun and reflect it into the atrium off prismatic chandeliers hung at various levels to create dancing rainbow effects, and a stainless steel pool looks from above, as if it contains liquid mercury.



This "loggia" acts as climatic regulator for each floor.

Everywhere, diffused daylight gives the work areas a natural outdoor illumination. Nearly half of the building is encased in a glass-walled second "skin", creating a four-foot-wide "loggia"- a private corridor with doorways to adjacent offices- that acts as a climatic regulator for each floor. Light sensors in the loggia automatically adjust blinds on the exterior wall to regulate glare and heat. In the winter, the sun heats the air in the loggias and it is moved inside to warm the work areas. In warm weather, the hot air rises and is automatically vented through louver windows that open to the outside.



The blinds automatically regulate glare and heat.

The effect of all these and other environmentally sensitive technologies- light enhancement systems, reflective ceiling tiles above the blinds, solar

**“You don’t feel like you’re in an artificial environment. That’s healthier for people and they perform better.”**

- Gordon Brailsford

**Situation** *continued*

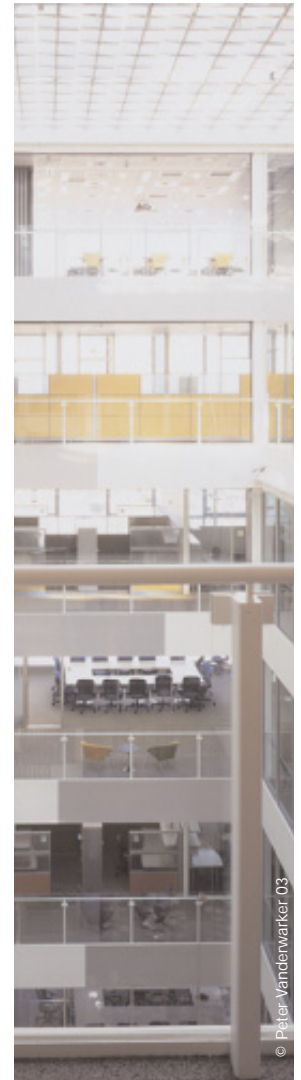
panels and water-saving technologies, for instance- is that the building uses 38% less electricity than a standard comparable building and 30% less water.

Despite the grand concept, however, the building is amazingly flexible to the wishes of work groups and individuals. Floor plates vary from floor to floor, for instance, and despite the high level of automated climate control, employees in offices bordering on the loggia can manually open lower loggia windows for fresh air. In fact, employee overrides on settings for temperature, blinds, light and, of course, furniture can in effect create micro-climates and personalized work patterns around each work area.

In this unusual and futuristic setting, only inspired office and furniture solutions would complete the vision of a workplace that truly improves the quality of worklife. With assistance from renowned workspace consultant Frank Duffy of DEGW- with whom Steelcase has often worked in the past- Genzyme conducted workplace surveys, time studies and personal interviews to determine who worked with whom, in what manner and the resources they required.

Behnisch and Next Phase Studios, using the information from DEGW, worked to design an interior solution that satisfied the needs of both Genzyme and its employees. The conclusion of this work was that about 50% of the space was devoted to individual offices, and these would come in three approximately standard sizes: 150 sq. ft., 120 sq. ft. and 90 sq. ft. Workstations at about 50 sq. ft. each were set back-to-back in pairs, separated by opposite-facing storage cabinets positioned side-by-side. Users also benefited from a variety of informal collaborative meeting space, including: "war rooms" (semi-permanent team spaces), "huddle rooms" (private two-person meeting spaces), "touchdown spaces" (spaces for visitors to plug in and work for a few hours), "browseries" (shared resource areas) and about 50 small "focus booths" (rooms for private phone calls or uninterrupted work).

These spaces complement a range of formal meeting and conference space: a first-floor lecture hall holding up to 150 people, a large board room for up to 60 people and numerous 12-person breakout rooms.



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**“This building and its furniture adopt different personalities under different conditions and uses.”** - Gordon Brailsford

**Situation** *continued*

In such a socially conscious, forward-looking and technologically advanced building, the furniture and office solutions needed to meet special criteria. Stylistically, it needed to present thin, sleek lines with plenty of natural materials. Also, in keeping with Genzyme Center's environmental awareness, it required low emission rates of volatile organic compounds, or VOCs- the gases created by substances such as polymers, solvents and adhesives in some newly manufactured materials.

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*At the same time, the project represented an ambitious desire to mesh many types of workspaces with a collaborative culture in a fast-changing, project oriented industry. Genzyme therefore know that it required flexible furniture that could be easily reconfigured and put to multiple uses.*

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"One of the big hurdles that we had to get over was that we had created this beautiful jewel-case of a building and, now, how do people work in it?" says Kim Archer, Genzyme's in-house architect and space planner. "Between DEGW, Behnisch, Next Phase Studios and Steelcase we came up with a way that people are quite happy with."



# Team effort.

## Solution

Genzyme chose Steelcase Universal Storage cabinets and shelving, “softening” the aesthetic with wood fronts. Shelves were also specially engineered for a thin-edge profile. Steelcase Universal Worksurfaces— also in wood— were given a sweep to soften the traditional angles and provide an ergonomically-friendly edge. The furniture also responded to Genzyme employees’ wish to be able to position their computer screens so that they did not face the door.

Montage® panels, chosen for the workstations, were a particular hit due to their ability to handle the complex cabling requirements— a benefit that competing systems didn’t have. Using Montage, Genzyme found it could feed up to 12 workspaces from one power pole. Steelcase also contributed to Genzyme’s goal of light accessibility and transparency by fitting the panels with fluted GoldRay glass. “In our LEED assessment, we received points for making daylight accessible to more than 90% of our employees,” says space planner Kim Archer, “and having this glass panel in the furniture system was a key part of that.”

Again upon the request of employees, each office was outfitted with small transitional worksurfaces, ranging from 24 to 36 inches in diameter according to the size of office. These popular tables telescope to 42 inches in height.

As for task seating, the Genzyme goal of offering the best to its employees made for a simple choice as the standard for its showcase workplace: the highly adjustable Leap® chair from Steelcase, which in a recent independent scientific study reduced pain during the work day and contributed to higher workplace productivity. Genzyme chose Leap not just as the default choice for its offices, but also for its conference rooms.

“Like Steelcase, we believe that architecture, furniture and design can be a valuable workplace resource,” says Genzyme’s Gordon Brailsford. “Steelcase office solutions contributed in a major way to allowing us to communicate innovation, transparency and collaboration, and to unlock greater potential for our workplace.”



Steelcase Universal Storage cabinets and shelving with wood fronts.



Steelcase Universal Worksurfaces in wood.

“One of the big hurdles that we had to get over was that we had created this beautiful jewel-case of a building and, now, how do people work in it?” – Kim Archer, Architect and Space Planner

# Sweet success.

## Results

Genzyme is awaiting the U.S. Green Building Council's LEED 2.0 rating system's platinum designation, the first large commercial building to achieve this standard. Steelcase assisted in meeting the qualifications for this goal, and in creating a flexible, collaborative workplace that supports teamwork, information sharing, ergonomic comfort and pleasing aesthetics.

A few months since moving in, Genzyme is now preparing post-move surveys to measure performance and job satisfaction changes since its earlier pre-move surveys. Given the anecdotal evidence, however, the outlook appears favorable.

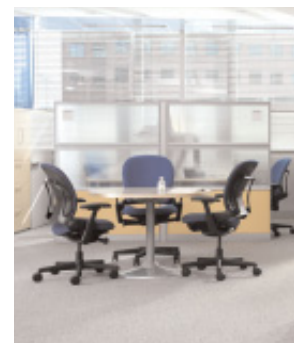
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*“This building and its furniture adopt different personalities under different conditions and uses,” says Gordon Brailsford. “You don’t feel like you’re in an artificial environment. That’s healthier for people and they perform better, both physically and mentally, in that environment. I hear comments like: ‘I can’t believe I actually work in a building like this. I can never go back to my other office.’ People are just thrilled.”*

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Still, Genzyme's facilities planners have observed some need for employees to learn how to use the new resources available to them, especially the vast variety of collaborative spaces. But they appear eager to do so. “People comment on how much they appreciate the ability to collaborate, through both the design of the building and of the configuration of the workspaces,” says Kim Archer. “A lot gets done just by people seeing each other.”



“Genzyme Center exemplifies how environmental and humanistic design can be realized with mainstream products... this furniture, in particular, is a real realization of that.” – Rick Ames, Next Phase Studios

## Results

Ultimately, Genzyme expects breakthrough performance from its employees, in large part because of the way its new headquarters is laid out and how it works, from the environmental features to the flexibility and functionality of the office systems and solutions. "Genzyme Center has actually exceeded our expectations," says Mr. Brailsford. "It places very strong emphasis on the individual- not only on individuals' ability to control their own workspace and environment but also to work collaboratively, as we like to do. It sparks our innovative spirit and it helps us achieve our goals."



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“It sparks our innovative spirit and it helps us achieve our goals.” - Gordon Brailsford

**Steelcase products used:**

Universal Worksurfaces  
Universal Storage: pedestals, cabinets  
and shelving  
Unison® desks  
Leap® chairs  
Montage® System Solutions (panels)  
GoldRay glass  
Details® workflow tools and user-adjustable  
monitor arms

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