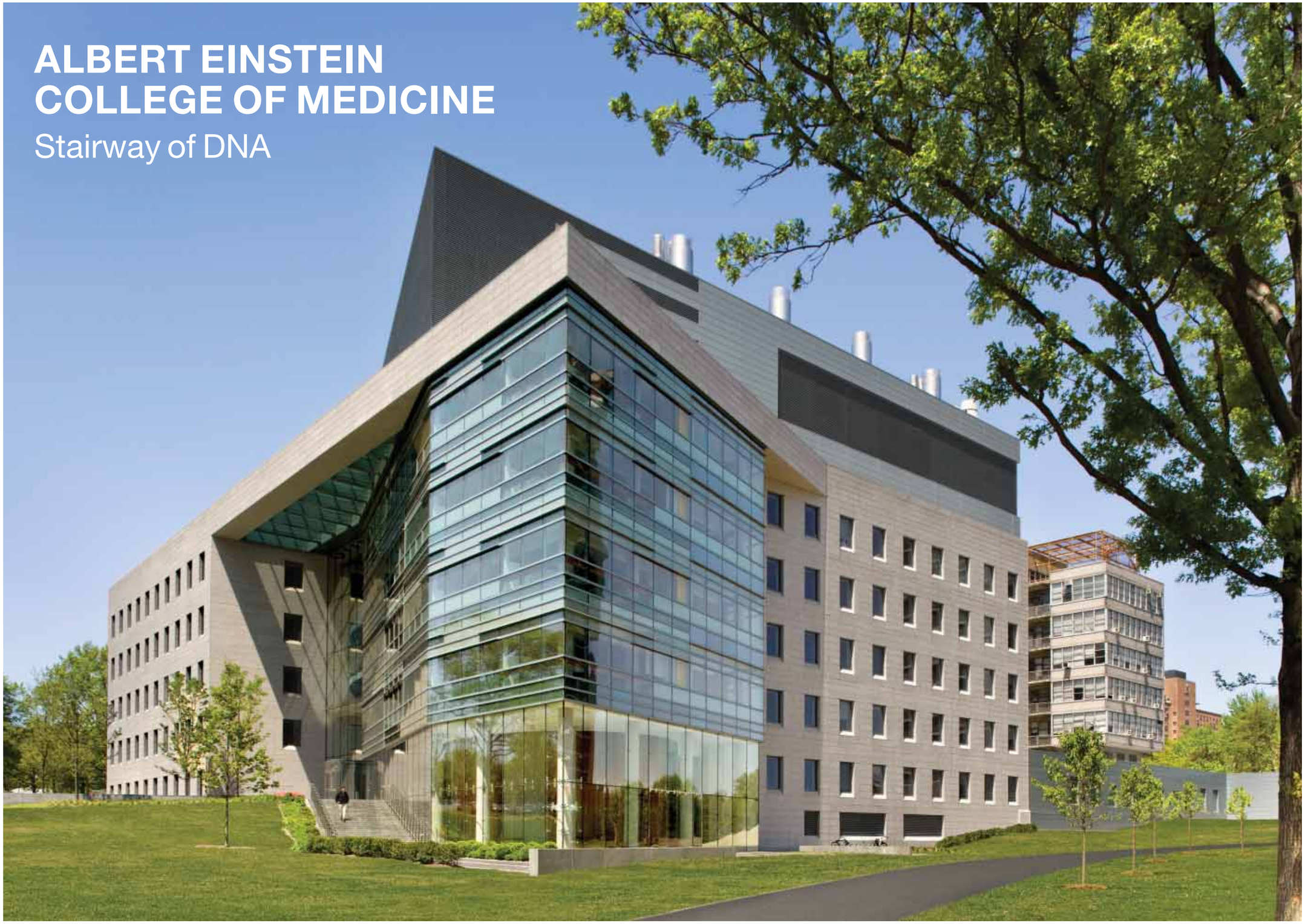
ALBERT EINSTEIN COLLEGE OF MEDICINE

Stairway of DNA



When the Albert Einstein College of Medicine began planning for its first major research facility in two decades, the administration decided it wanted to create a uniquely collaborative environment that would foster interaction and cross-pollination among the facility's 40-odd research teams. In response, Payette—the architectural firm selected to design the Michael F. Price Center for Genetic and Translational Medicine—conceptualized an L-shaped building with wet labs in the two wings and a dramatic glass-enclosed atrium and core at their juncture. The atrium, with its light and airy common spaces, is designed to draw scientists for the sharing of ideas, while a dramatic two-story steel spiral staircase invites vertical circulation within the core.

It is the stairway that ties it all together, literally and figuratively, encouraging the desired interaction. "Not only do you have cross-pollination happening on the floors but also between floors," explains Chris Baylow, the project manager for Payette. Salvatore Ciampo, the senior director for facilities management at the college, says, "I love that it looks like DNA. It has relevance to what we do here. It's almost like a sign." Like DNA, the stair acts as the catalyst for the research that takes place inside by connecting to a series of lounges on each floor where researchers congregate to eat, socialize, and relax. And because the stair is located in the building's inviting atrium, the hope is researchers and doctors will prefer it to the elevator. "This way, not only will the scientists on the same floor be bumping into each other and sharing ideas, but it will happen throughout the entire facility."

Though it looks like a unified spiral, the stair is composed of two distinct flights, one connecting the second and third floors, another connecting the third and fourth. Empire City Ironworks fabricated each flight off-site in three pieces. "It was originally planned to deliver each flight in one piece," explains Richard Wolkowitz, Vice President at Tishman Construction. "However, due to the fabrication schedule, the building facade glass could not be left open. Each flight was fully fabricated in the steel shop and then cut down into the three sections for delivery."

Previous A prominent glass prow on the new facility houses dry labs, communicating the activity within to the world outside.
Left Each of the stair's two flights was shop fabricated in three pieces, then welded together on site.

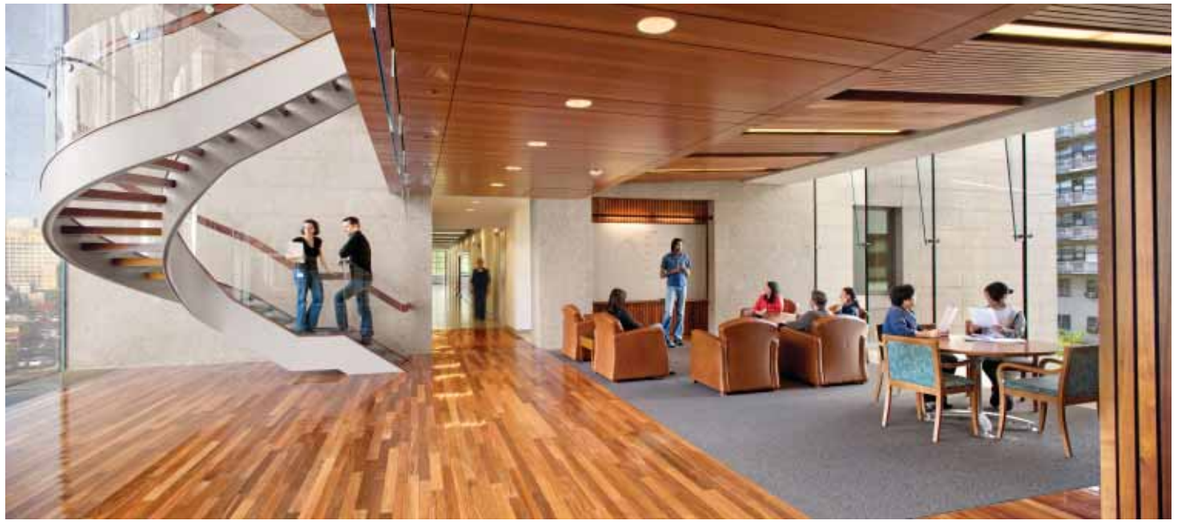
Below and Facing The stair's curving form is meant to resemble the helical form of DNA.

Upon delivery, the pieces were welded and ground smooth in place. Steel plates were embedded in the concrete floor slabs to receive the stringers. These connections are welded and concealed by a wood fascia.

The structure is a steel box stringer made of a series of ½-inch AISC AESS built-up plate sections with continuous ¼-inch partial penetration fillet welds. Payette fitted the stairs with a glass handrail to mimic the atrium curtain wall, utilizing 18-inch-deep, ½-inch-thick monolithic low-iron glass. The glass is recessed into the stringer and held in place with Por-Rock non-shrink grout. It is also fitted with a mahogany railing that echoes the wooden motif found throughout much of the interior. The railing is fitted to the glass with stainless steel brackets. The stair's steel plate treads, which were welded to the stringer, were then fitted with ipê wood treads, which were screwed in place.

To create as inviting a space as possible, Payette chose to face the atrium with a clear, seamless glass curtain wall. Also, as the first building in a new 15-acre north campus—it doubles the size of the school's grounds—the new research center was designed as an entry point for all that will eventually rise behind it, a connection the glass helped emphasize. "Before you even enter the building, you can see right through to the whole new campus we have envisioned," explains Baylow.

Payette turned to Pilkington's Planar system to enclose the dramatic atrium. "It's about as transparent an enclosure material as you can get," says Baylow. The ultra-clear, low-iron glass panels are generally 4 feet 7 inches by 13 feet and 1½-inches in thickness including the air space. The panels are sealed with dry gaskets and silicone, and glass fins fastened to the panels by stainless steel spider connectors provide lateral stability. To reinforce the idea of connection to a wider campus, the



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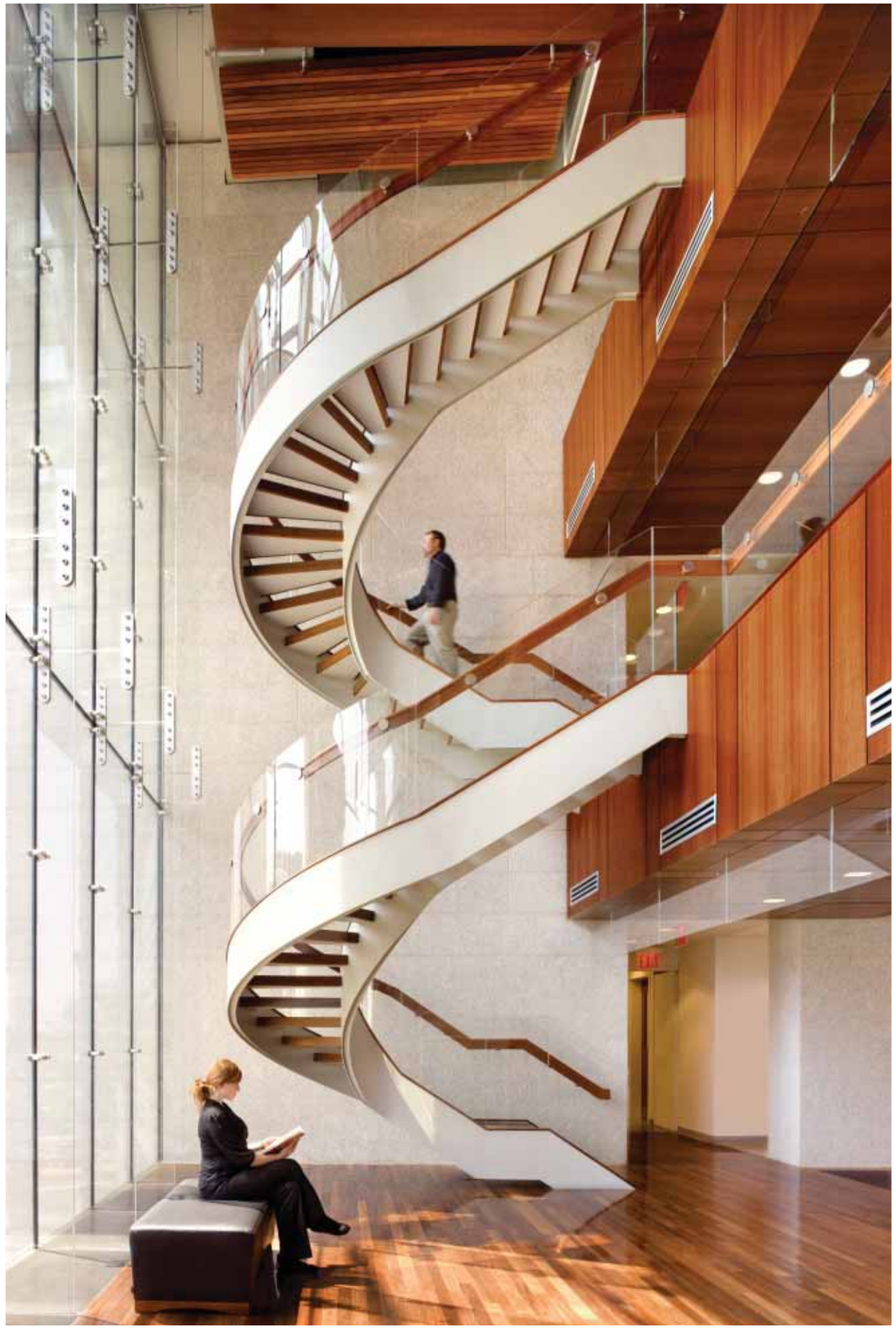
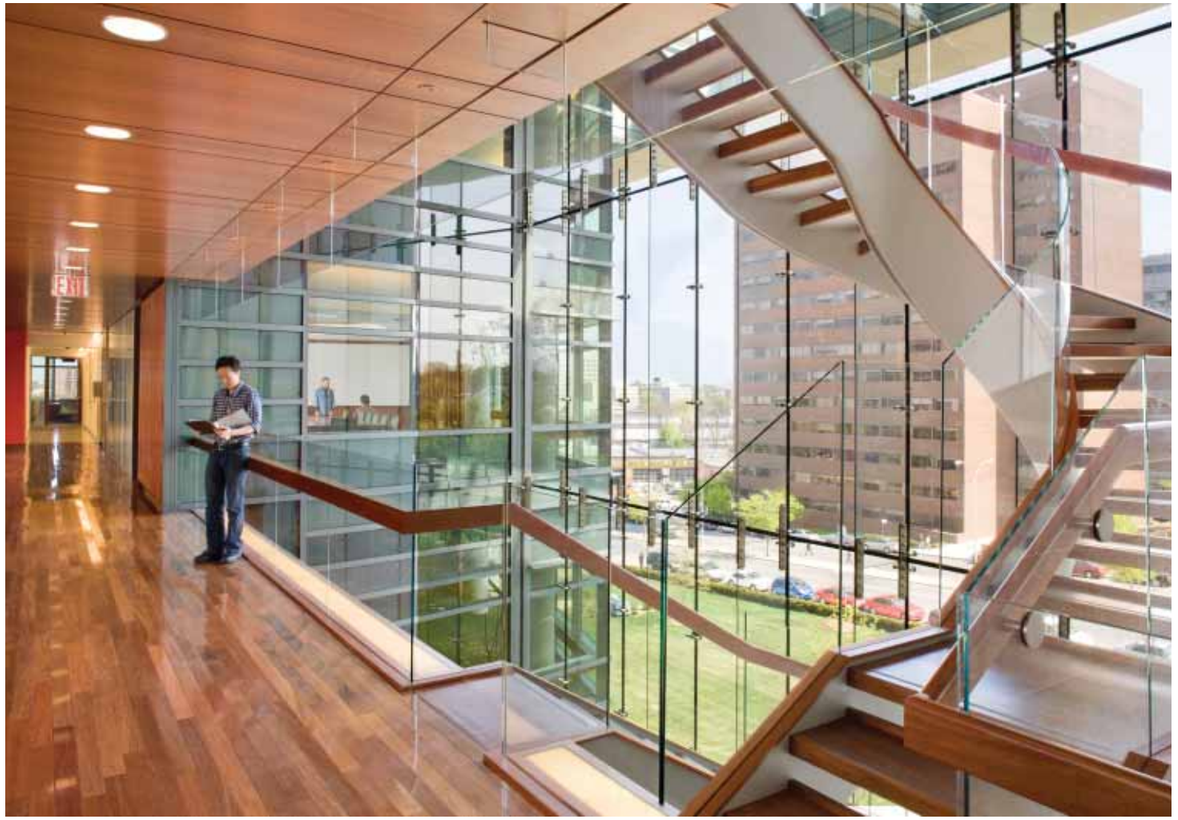




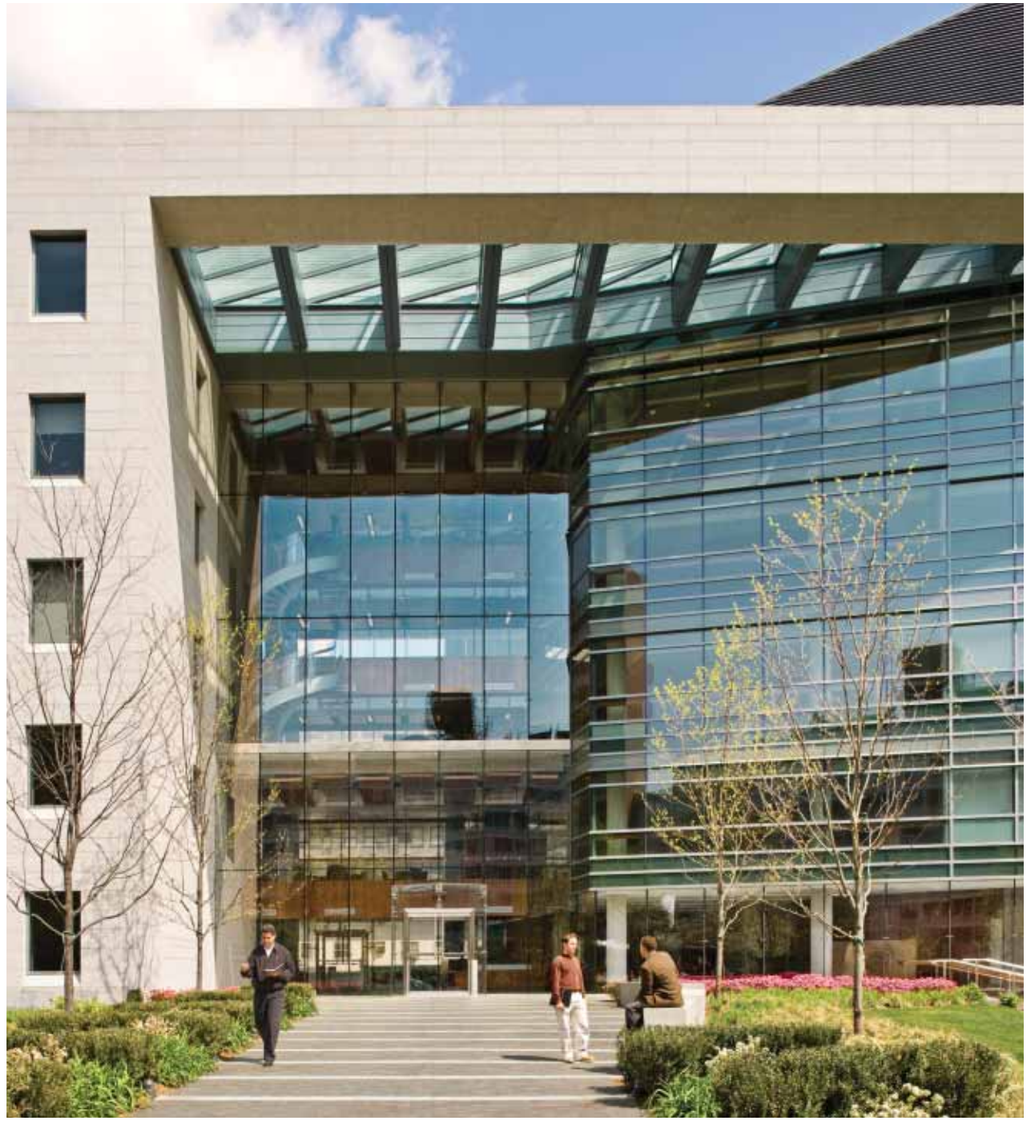
Above The open, light field environment is intended to foster ideas and random encounters between researchers.
Facing Views pass straight through the building's lobby to the other side, setting the building up as a gateway to a new campus.

lobby within the atrium runs straight through the building to another glass wall on the other side.

"It's art that fosters collaboration," says Ciampo. "By creating these light and airy spaces, we encourage co-mingling, which encourages collaboration." Even the stairways at the edges of the L-shaped building are wide and inviting, encased in a glass curtain wall composed of 1-inch-thick insulated glass panels set in extruded aluminum mullions. "We really wanted to get people away from the elevators, which can be a dead zone for ideas," says Baylow.

Wanting to maintain the drama that the glass atrium created throughout the building, Payette also turned to a curtain wall for the "dry" labs, where more computational, desk-bound research takes place. These labs are located in the prominent prow of the building, floors two through five, which are enclosed with an aluminum-framed glazing system with glass colored in a mix of tones that skew from green to blue. The different colored panels create shadow lines across the face of the prow, animating the exterior. "What it says is there's a lot of activity and sharing in that part of the building, a lot of ideas moving back and forth," says Baylow. "We wanted that part of the facade to read to the outside world and convey what's going on inside."

By all accounts, the Michael F. Price Center has been a real success, thanks in no small part to the master craftsmen of the ornamental metal industry. "For the first building of the expansion, it really is a statement," enthuses Ciampo. "We wanted to set the standard for the new campus, and I think Payette certainly has. They've hit a homerun." **M**



ALBERT EINSTEIN COLLEGE OF MEDICINE

Location: **1301 Morris Park Avenue, Bronx, NY**
Owner: **Albert Einstein College of Medicine of Yeshiva University**, *New York, NY*
Architect: **Payette**, *Boston, MA*
Structural Engineer: **Weidlinger Associates**, *New York, NY*
Mechanical Engineer: **WSP Flack + Kurtz**, *New York, NY*
General Contractor: **Tishman Construction**, *New York, NY*
Curtain Wall Consultant: **Gordon H. Smith Corporation**, *New York, NY*
Structural Steel Fabricator and Erector: **Empire City Iron Works**, *Long Island City, NY*
Miscellaneous Iron Fabricator and Erector: **Empire City Iron Works**, *Long Island City, NY*
Architectural Metal Fabricator and Erector: **Empire City Iron Works**, *Long Island City, NY*
Ornamental Metal Fabricator and Erector: **Empire City Iron Works**, *Long Island City, NY*
Curtain Wall Fabricators: **Sota Glazing Inc.**, *Brampton, ON*;
Pilkington North America, *Toledo, OH*
Curtain Wall Erector: **W&W**, *Nanuet, NY*
Metal Deck Erector: **Empire City Iron Works**, *Long Island City, NY*