There's no other hospital like it

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The Mark O. Hatfield CLINICAL RESEARCH CENTER

NEWS

The Science Court, an atrium to promote health and healing

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When the Mark O. Hatfield Clinical Research Center (CRC) opens this fall, a multi-story, glass-enclosed oval-shaped atrium, the Science Court, will become the hub of the new hospital.

"This new complex, combined with the existing Clinical Center buildings, provides more than three million square feet of patient care and translational research, making it the largest clinical research facility in the world," said Robert Frasca, design partner for Zimmer Gunsul Frasca Partnership, the CRC architects. "The Science Court is the hearth of both the NIH Clinical Center complex and the NIH campus. It is a worthy and functional tribute to the work that happens here."

Rising nine stories, the atrium has seven floors of occupied space, each with walkways facing inward to the atrium. Two more levels comprise interior ceiling space. The multi-purpose Science Court will serve as the central gathering area, or main "circulation spine," connecting the CRC's largest building sections from north to south.

The two-story main hospital entrance sits on the north side of the atrium. In this area, there will be seating, a main reception desk, and security and transportation functions. On the atrium's south side will be the admissions area; the voucher, travel and cashier offices; the pharmacy; and garage access for visitors and patients. A café on the east side and a gift shop on the west side will have access to the landscaped courtyards flanking the atrium. A large public art sculpture will reside at the center of the atrium.

The atrium rises nine stories and has seven floors of occupied space, each with walkways facing inward to the Science Court.

Visitors will notice "X braces" throughout. Both functional and decorative, this design element provides both visual charm and support to the overall structure. The look of the space, with its "staggered" effect, is a result of the atrium opening being smaller at the north and south ends on the odd numbered floors. This allows additional seating on patient floors. The terracotta hues of the terrazzo (or stone-based aggregate) atrium flooring match the color of the disk-shaped center in the middle of the ceiling.

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"The Science Court is the CRC focal point and will invite interactions among people," said Jim Hart, CRC project manager for Boston Properties, Inc., the hospital's development management firm. "It successfully balances and meets the needs of both patients and staff. Individuals coming through will find it an aesthetically pleasing environment."
Several elements—medicinal plant displays, retail amenities, landscaped courtyards, a sun-like ceiling center, and a healing waters sculpture—will enhance the Science Court's appeal.

Medicinal plantings

Plants have been used for medicine for thousands of years in all known cultures and the healing qualities of nature have long been recognized and relied on as a valuable part of convalescence. The Clinical Center is collaborating with the U. S. Botanic Garden to develop medicinal plant displays for the CRC.

Two "people-scaled" landscaped courtyards provide serenity within the large CRC complex.

"The plantings and descriptive text for each one would be placed along the walkways on the floors that face the Science Court atrium interior," said Crystal Parmele, director, Clinical Center Art Program, Office of Facilities Management. "The collaboration is the result of our contact with the Botanic Garden," she said. "They have a medicinal plant collection and are eager to assist us."

Representatives from the Botanic Garden have provided the Clinical Center with a list of the medical, research and homeopathic uses of such plants. Plans call for more discussions with the Botanic Garden's horticultural experts to determine what plants will grow best in the atrium and what types of plant groupings or displays would be appropriate for the CRC.

Exterior courtyards

Since one primary design goal of the CRC is to provide a healing environment for patients, the east-west facing patient wings are paired around two "people-scaled" landscaped courtyards that will provide serenity within the Clinical Center and border the Science Court. CRC patient rooms have large windows, and views to the courtyards offer visual solace, a connection to nature and a sense of peace.

The two courtyards are composed predominantly of green space (low ornamental trees and plantings) with some hard surfaces for paths and seating areas. Each courtyard is approximately 16,500 square feet. Public and patient access is limited to those areas immediately adjacent to the Science Court. Other outdoor space on the exterior of the CRC will be dedicated to outdoor program requirements of the CRC, such as the pediatric playground.

Shadow studies were conducted to help the landscape team understand how and where plants should be located. The courtyards are quite shady, and the plant selection was very carefully tailored for shade tolerance. Seating and planter walls are built into the design layout, as are light standards and paving design. The courtyards are mirror images of each other in layout, but subtle differences exist between the two planting plans.

Patient privacy on the ground floor also was an important consideration in path layout and planting scheme. The use of physical walls and screens was ruled out early on as too intrusive for the openness of the courtyards. Planter and tree size grow as one moves away from the Science Court.

"This creates an organic and figurative connection to the world and landscape beyond," said Roger Courtenay, vice president, EDAW, Inc., the CRC's landscape contractor. "The organic layout is a relaxing counterpoint to the straight lines of the building, and reinforces a soothing visual environment."

"The courtyards originate at the Science Court center and flow outwards to either end," he said, "This emphasizes the court and its connective junction. People will appreciate the greenery, the organic flowing lines of the courtyard design, the seating opportunities, the private spots and visual relief."

Courtenay emphasized the importance to hospitals of elements such as courtyards. "Research supports the contributions of garden environments to patient recovery. The therapeutic benefits of visual and physical access, through windows and in person, are well known. NIH staff wanted family and visitors to be able to go outside with patients for private time. These kinds of places offer secure environments in close proximity to hospital support."

Ceiling center

Looking skyward in the Science Court, one sees a sun-like center in the ceiling. The 3,300-square-foot disk, whose design replicates the atrium's "X brace" design element, was specially crafted of Italian plaster by head artisan Serge Vadenoff and other craftsmen from Architectural Coatings, Inc. Director of Sales Danny Cox explained that this decorative plaster finish was "first developed by the ancient Romans, its technique closely guarded by Italy's stuccatore maestros."

The plaster used in the Science Court ceiling is Marmorino, a stone product marketed by Architectural Coatings. Marmorino, known for its richness and depth, contains only the highest quality marble, which is broken, ground and sifted. It is then mixed with slaked lime and water to produce a seamless finish. Tints and color are added during the mixing process. The plaster in the Science Court ceiling was done in tiger eye—a custom color made to match the main hospital color selected by Zimmer Gunsul Frasca.

This is the largest ceiling project the company has ever done and the first hospital they've done with Marmorino. Locally, the same product application can be found in the International Spy Museum, the Italian Embassy and several retail sites. Artisans specially trained in the technique of applying these Italian plasters spent two weeks working in three- or four-member crews to complete the ceiling center. Standing on scaffolding, they prepared the ceiling to receive the Italian plaster by smoothing, sanding, and priming the drywall before applying the special plaster. "Working overhead at an angle, with your arm going back and forth to apply the plaster, then troweling, burnishing, and finishing the application properly, takes an inordinate amount of energy and skill," said Cox. "They know how Michelangelo felt painting the Sistine Chapel ceiling."

Interactive sculpture

Early on, the CRC design called for a double helix staircase in the center of the Science Court, but this idea proved to be cost prohibitive. The large atrium space still needed enhancement, however. To fill that need, project manager Jim Hart facilitated a design competition held last November. Several designs were presented to a small subgroup of the CRC Steering Committee. It didn't take long for those reviewing the designs to unanimously approve and select the design proposed by artists Gene and Susan Flores.

Gene, a sculptor, and Susan, a furniture maker, work out of their studio in the Berkshires of western Massachusetts. Their work, individually and as a team, may be seen throughout the country. For the past eight years the couple has been considering and creating "intimate spaces," often doing sculptures as gifts, installing them in urban parks. "We've stood back to watch whether they 'worked,' and found that people deeply appreciate coming across an oasis in their daily routine," said Susan.

For the CRC Science Court, the Flores' artistic approach is to create an oasis for the atrium center, a place away from the business and busyness of the building, where people can find refreshment, conversation and the expression of hope. Their source of inspiration comes from the story of Bethesda, the House of Mercy—which is ingrained in the history and geography of NIH. They based their concept on and worked from the first part of the Gospel of John, which describes a healing pool with five porches, where the sick await the angel's stirring of the water.

The elements in their design include:

A Meditation Alley

This mimics the elliptical arcs of the balconies above but completes the ellipse on the atrium main floor. The walkway will be outlined by kentia palm trees around the perimeter of the atrium, establishing visual separation from the surrounding activity

and providing a place for meditation, conversation or a little exercise.

The Pool and Stream

Accounts of the archeological excavation of the healing pool of Bethesda in Jerusalem describe two adjacent rectilinear pools with a portico porch between them, and four more around them. In the atrium's sculpture design, a square pool of still water empties by virtue of a small waterfall into a stream, thus "stirring the water."

The Bridge

The first of the five porches of Bethesda, the bridge is a symbol of the CRC's intent to "bridge the gap between biology and human health." On it will be inscribed quotes from pioneers of scientific thinking.

The Porches

Four more porches provide seating for contemplation of the pool, stream and bridge. They will also allow for congregation and contemplation.

The entire sculpture will be entitled "Oasis." A bronze plaque near the atrium art piece will include this quote from the eighth-century Chinese poet Bai Juyi (772-846 AD), "Wanderers from the four corners of the Earth we meet first here—who needs an introduction."

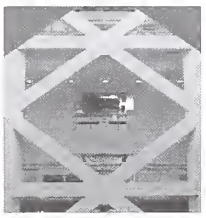
"Public art is like a boat," said Gene Flores. "You have to build it, make sure it floats." After that, you have to make sure it is "accessible and then you have to get people on board"—something he believes will happen with the CRC sculpture.

For Susan this is an opportunity to give something back to the health care system and to everyone that walks through the hospital door. She speaks from experience, having had thyroid cancer as a child and breast cancer as an adult.

The sentiment of the Flores' sculpture may be best expressed in this, the last line from Thornton Wilder's novel *The Bridge of San Luis Rey:* "There is a land of the living and a land of the dead, and the bridge is love, the only survival, the only meaning."

— by Dianne Needham

About the name



The CRC's official building name is the Mark O. Hatfield Clinical Research Center.

The existing building's official name is the Warren Grant Magnuson Clinical Center.

Together, the Hatfield and Magnuson buildings comprise Building 10. The organizational entity will continue to be known as the NIH Clinical Center.

Both Senator Hatfield and the late Senator Magnuson actively supported medical research during their careers. For further information, log on to: www.cc.nih.gov/ccc/crc/.

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