

THE PROPERTY REPORT

Center's Design Tries to Aid Autism Battle

An Open Layout Invites Interaction Among Parents, Patients and Scientists

By ALEX FRANGOS

CAN A BUILDING help cure a disease?

That's the intention of a unique new research and diagnostic center at the University of California, Davis Medical Center in Sacramento. The disease is autism, a mysterious affliction of the brain. Its origin is unknown. And some fear its incidence has risen so quickly that there's an epidemic among young children.

The building, called the MIND Institute (short for Medical Investigation of Neurodevelopmental Disorders), is the first facility of its kind with a new model for fighting disease: mixing clinical and research spaces in the same complex. Patients, doctors and white-coated lab technicians all park their cars in the same lot, pass through the same wood-paneled entrance, drink coffee in the same cafeteria. It forces the scientists to see the patients they are there to help, and exposes the patients and their parents to the hope that science can offer in their quest for a cure.

"The challenge for the design team was not just to make a great building, but one that would help us find a cure for autism," says Chuck Gardner, one of the founders of the institute. Mr. Gardner, a Sacramento contractor, and four other politically connected fathers of children with autism, banded together in the late 1990s to change the way the research community approached the enigmatic affliction.



The waiting rooms (above) at the MIND Institute at the University of California's Davis Medical Center, offer a sense of privacy. The entrance to the facility (right) is topped with a 30-foot rotunda.

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Also aiding their cause: A 1999 report by the California Department of Developmental Services showed autism incidence had increased 273% in just over a decade. The percentage of patients with autism at state-funded clinics jumped to 9.4% from 4.9%. This hard-to-treat disease was becoming a burden to the state. "There's a recognition now that this is a community

center where parents come to read up on the disease and understand the research that's going on. Researchers donated the books for the parents to peruse.

The design also is about building awareness. The layout of the different spaces forces occupants to see one another, rather than hide behind walls and doorways. Administrative offices have interior windows, like those on the factory floor, that look out on the main reception area where families wait. The waiting area, in turn, peers down a wide space to the rotunda, where scientists enter and exit.

Soothing Palate

What the parents of autistic children notice most about the facility is the comfortable atmosphere. "People in this situation are already under the worst stress," says Jean Bury, whose son Evan, nine years old, earlier this year was diagnosed after three days of tests at the MIND as being "high-functioning" autistic, meaning he attends regular school.

The waiting room is carved into nooks, like cubicles, to afford families a sense of privacy. TVs and video players are free to play videos parents bring along. A fish tank, behind bullet-proof glass to protect the fish from the occasional banging fists, offers a calming scene. Outside, a playground has slides and swings.

"It's the warm touches, the comfy couches, the playground for kids," says Ms. Bury. In "the waiting areas, you can almost have your own living room."

The interior design isn't cloying or childish, partly because the space has to be shared with scientists, and partly because bright colors can induce outbursts with autistic kids.

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The \$48 million, 100,000-square-foot institute, opened this past July, is the crowning achievement of that effort and reflects autism's admission into the top tier of medical priorities, along with diseases such as Alzheimer's, AIDS, and cancer. Last week, at a conference in Washington, D.C., the federal government and autism advocates announced a landmark agreement to launch a campaign against the disease.

Relentless Lobbying

The fathers raised money and awareness of the disease among the power elite in Sacramento. They were aggressive and relentless. For them, it was personal. "They made some people mad by doing it they way they did it," says Robert Hendren, executive director of the institute.

But it wasn't long before the lobbying produced results. In 1999, the legislature passed a bill allocating \$40 million for a new autism facility. "All the contacts I

had came back to help me," says Rick Rollens, a founding father and a former secretary of the California State Senate. "My friend, [then Gov.] Gray Davis, and others were taken by my son's situation."

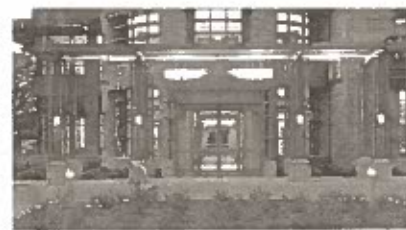
Also aiding their cause: A 1999 report by the California Department of Developmental Services showed autism incidence had increased 273% in just over a decade. The percentage of patients with autism at state-funded clinics jumped to 9.4% from 4.9%. This hard-to-treat disease was becoming a burden to the state. "There's a recognition now that this is a community problem," says David G. Amaral, the MIND's research director.

Some people, though are skeptical of the increase, and say it could simply reflect changes in the way mentally disabled children are diagnosed.

Autism affects a person's ability to communicate, form relationships and respond to the world around them. It usually appears before age three and can vary in severity from individuals who go to school and hold jobs, to the most afflicted, who can't speak and shun interaction. The causes are unknown, though a genetic link is suspected, triggered perhaps by environmental factors, such as diet or pollutants. It's more common in boys.

Designed for Collaboration

The MIND's design is based as much by the need to find a cure for autism as by the insight of the founding fathers, who spent years of frustration trying to



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find answers to why their children were so different. The fathers discovered that the work being done on autism was haphazard and uncoordinated. Their aim with the MIND was to bring all the parties together.

"The very design of this building is for collaboration," says Mr. Gardner.

Indeed, there's one grand entrance, topped with a 30-foot rotunda, which serves as a focal point for the building. It's a meeting place for the doctors and psychologists and administrators who turn right to their space, and the scientists who go straight to their labs. Wide stairways encourage casual conversation. There's consciously one cafeteria and one place to get coffee.

Benches and plush furniture, nooks and crannies along the walls provide places to sit and exchange knowledge. The exterior of the building has notches in the window sills, perfect for colleagues to sit and sip coffee or eat lunch.

"It's a building you can sit on," says Bill Blanski, the lead designer on the project from Minneapolis architecture firm Hammel, Green & Abrahamson.

Jutting out at the front of the building is a window-paneled multimedia resource

privacy. TVs and video players are used to play videos parents bring along. A fish tank, behind bullet-proof glass to protect the fish from the occasional banging fists, offers a calming scene. Outside, a playground has slides and swings.

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An expert colorist whose own child has autism, was brought in to develop a soothing palate. Earth tones and soft hues dominate the walls and carpets. Drawings and paintings by artists with autism dot the hallways. Fluorescent lights that set autistic kids on edge were avoided and replaced with ones that flicker less. Woodwork is curved to avoid sharp edges. Low reception desks let kids see who their parents are talking to. Acoustical tiles keep the volume level to a whisper.

A phlebotomy lab, where kids—autistic and nonautistic—donate blood for use in genetic matching, is soundproofed so those waiting in the reception area aren't startled by the crying. The actual room where the blood is drawn has an oversized lounge chair large enough for parents to hold their kids while the blood is taken. "I have an autistic son," says Veronica Boyd, the resident phlebotomist. "I understand what it's like." If the kids can't handle the experience, there's a backdoor to leave without having to go through the waiting area.

The research wing of the MIND, meanwhile, is spacious and light filled. Right now, many of the labs lie empty. "We hope to fill the labs in the next three to four years, says Mr. Amaral, the research director. The ones that are occupied are teeming with technicians. One young man slices frozen monkey brains into paper thin wafers, hoping to find a clue as to what part of the brain causes autism.

Back in the central area of the building, near the rotunda, is an exhibition hall. A podium sits at the front of rows of neatly lined chairs. "This is the room where someone will announce the cure for autism," says Mr. Hendren, the executive director.