

In harmony with nature's blueprint

The Dickinson & Gooding Center for Early Detection at the Scripps Center for Integrative Medicine

BY JAIN MALKIN

For years Erminia (Mimi) Guarneri, MD, has, like Don Quixote, been battling windmills. Frustrated by the limitations of conventional medicine in keeping her cardiology patients from returning for yet another balloon angioplasty or stent, she knew there had to be a better way to care for them. As her spiritual journey led her in many directions, over time she realized that her patients needed more than she had learned in medical school. If she really wanted to prevent or reverse heart disease, she would have to convince her patients to make substantive lifestyle changes and monitor their progress in a program that she personally directed.

She started with the Dean Ornish program and eventually developed her own model cardiovascular health program called Healing Hearts, which blends conventional care with yoga, group support, exercise, nutrition counseling, acupuncture, music therapy, meditation, and healing touch. Her success and impact on the lives of her patients has been enormous, a success that is attributable to the total integration of these complementary therapies in a medically organized program under the supervision of Dr. Guarneri and her team. In fact, patients from around the world have beaten a path to her door, and a number of them responded with an open checkbook, offering to help underwrite her dream—to build the Scripps Center for Integrative Medicine.

With the Center, she wanted to change the “repair-the-broken-body-part” paradigm of healthcare to a new holistic model, housed in a single place where one could go to have a trusted authority assess mind, body, and spirit wellness.

As her business plan was formulated, it became apparent that Phase One of the project should include a strong revenue generator to serve as the financial anchor for the next phase. And so the 9,000-square-foot Dickinson & Gooding Center for Early Detection came into being. It has as its centerpiece the latest-generation GE Discovery PET/CT scanner, which enables diagnosticians to observe metabolic function in body organs accompanied by images of tissue and anatomical data. The goal of the Center is to identify disease—primarily cardiovascular disease



Owner: Scripps Health

Design: Jain Malkin Inc., in collaboration with Schmidt Scanlon Gordon Architects

Design Team: Jain Malkin, Jim Gordon, Osia Ora-Strasner, Molly Scanlon, Michele Woodward, Chris Shinall, Jeff Schmidt

Concept: Jain Malkin

Construction: Turner Construction

Mechanical & Electrical Engineers: Randall Lamb

Environmental Graphics: Harmon Nelson Design

Photographer: Michael Campos

Open: October 2004

Total Area (Sq. Ft.): 9,000

Total Cost: \$2.3 million

Cost/Sq. Ft.: \$255 (includes substantial infrastructure repair: new slab, roof, HVAC units, electrical upgrades for imaging equipment)

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HEALTHCARE DESIGN

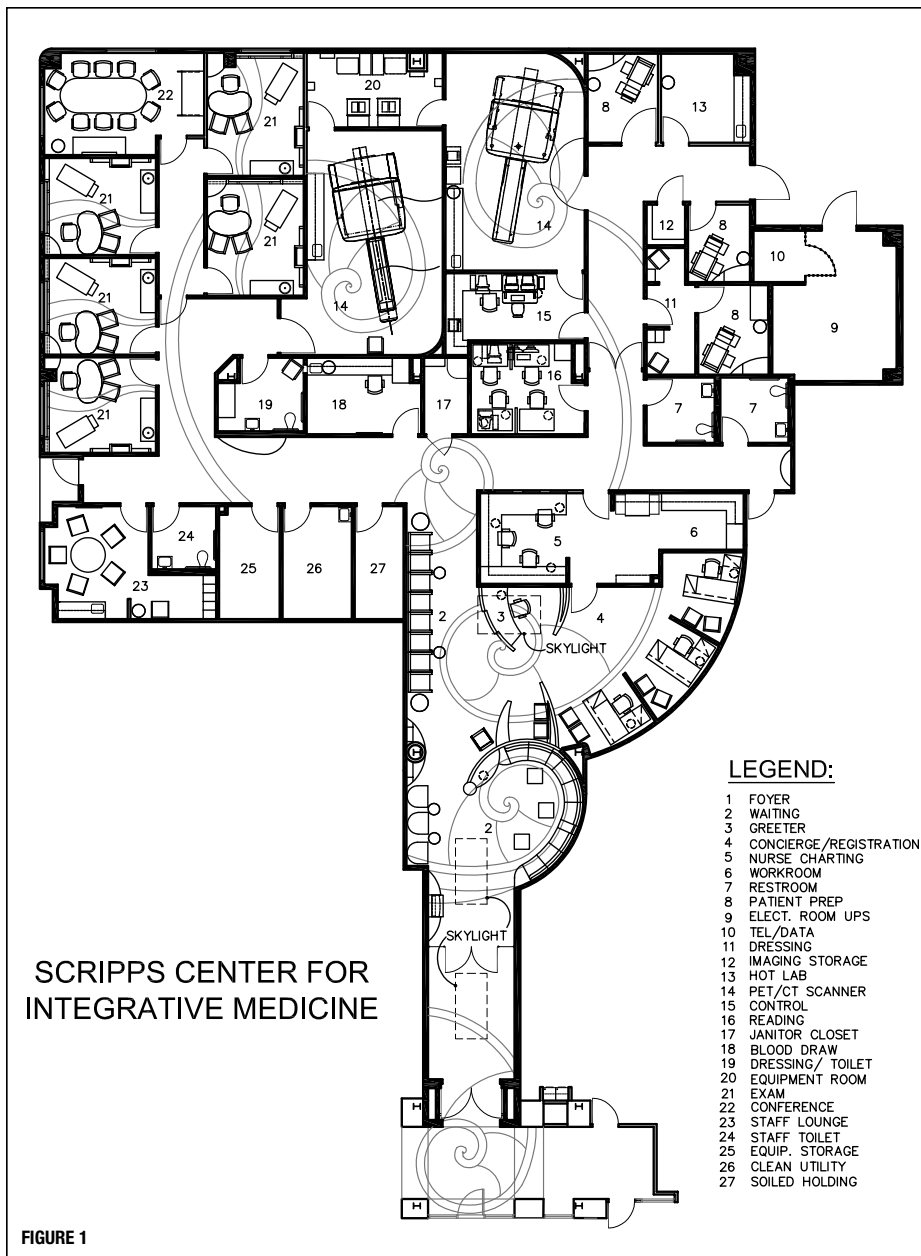


FIGURE 1

and cancer—at its earliest stage, when intervention can provide the best outcome.

A typical patient at the Center is one who is dealing with a life-threatening health problem or is asymptomatic but has, perhaps, several risk factors for a specific disease, or is a healthy person who chooses to proactively manage his or her health and wellness. An interview with Dr. Guarneri or another physician determines what type of body scan (if any) is appropriate, and this is followed by an extensive family history and questionnaire. Then, a clinical team custom-designs a lifestyle prescription for the patient based on the patient's goals, medical condition, motivation, and desire to feel better physically and emotionally. Through participation in these customized lifestyle-modification programs, patients dealing with serious illness often, for the first time, are free from fear; they learn coping skills and become confident in managing their health and wellness.

Through research, it became clear to Dr. Guarneri over time that this model of lifestyle change could be used to prevent many major diseases, such as diabetes or even certain types of cancer. Moreover, a weight-loss module has been added for obese individuals, and a pain-management module is in development.

Dr. Guarneri's passion for integrative medicine has strong emotional appeal for many. She has proved to be a motivational speaker extraordinaire, achieving "rock star" status, with standing-room-only audiences at many of her events. "You have to call your spirit back after a heart operation," she explains to audiences, noting the terror many feel postoperatively after undergoing coronary bypass surgery. In discussing her quest for a more effective way to treat patients, she observes: "A heart problem is often truly a problem of the heart—a spiritual problem of loneliness or sadness or stress that I didn't have the tools in my toolbox to fix."

Integrative medicine is not widely embraced by physicians—many do not understand the role of the mind in the onset of illness. That Dr. Guarneri has been able to achieve her dream for the Center for Integrative Medicine is a testament to her fortitude. But she and her colleague, Rauni King, RN, a certified holistic nurse and practitioner of healing touch, have made it happen. Now that Phase One is open and potential philanthropists can experience the environment, several have expressed interest in seeing Phase Two get under way. Ultimately, a major remodel of the entire building will occur. A running track and swimming pool overlooking the ocean are already part of the Integrative Medicine facilities.

The Origin of the Design

The goal for the design was to develop in the built environment a physical expression of the mind/body/spirit connection that is the basis of integrative medicine. This led to what is sometimes referred to as sacred geometry, a mathematical relationship of the part to the whole, also known as the *Golden Mean* or *Golden Section*. Although "sacred geometry" has many more derivations and expressions than the Golden Mean, it is the latter that became the guiding principle for the Center's design because it is intrinsically embedded in all that we see in nature; indeed, even the double helix of our DNA is based on the proportions of the Golden Mean. The patterns and shapes of the natural world, which have long been assumed to be random, actually follow orderly principles.

The Golden Mean is, specifically, the ratio found when a line is divided into two unequal lengths so that the shorter relates to the longer as the longer relates to the whole. Numerically, it is a ratio of 1 to 1.618. It is a constant ratio found in nature, from pinecones to crystals, to pineapple skins and triton shells. If you cut an apple in half, you will see a star pentagon of seeds expressing the Golden Mean.

Buildings employing the Golden Mean have, throughout history, been known to evoke a sense of harmony and well-being. A section through the center of the face of the Great Pyramid of Cheops reveals that half the base and the full side equal the Golden Mean. The same proportions are found in Rome's Pantheon, the Taj Mahal, and Frank Lloyd Wright's Guggenheim Museum in New York. There are built examples from every age around the globe. And countless mathematical treatises have been written over many centuries about the proportions and other geometric relationships that express the ways in which number and symmetry operate as organizing principles in the natural world. The triangle, the square, and the pentagon bind together the various elements of the living world, whether plant, animal, or human. From



FIGURE 2A



FIGURE 2B



FIGURE 3



FIGURE 4

this perspective, these proportions can be regarded as “blueprints” for living things, which may explain why these forms often inspire and delight us. Indeed, evolutionary biologists suggest that humans are hardwired to recognize and respond to these patterns and forms.

The Spiral

One of the most compelling of nature’s forms is the chambered nautilus shell. The fluidity of its curves and the ever-increasing volume of the chambers delight the eye. According to psychologist Carl Jung, “The spiral is an archetype embedded deeply in our collective unconscious.” For all of these reasons, it seemed to be the perfect form for a structure to express the harmony and unity of mind, body, and spirit that is the goal of integrative medicine. The nautilus shell, therefore, shapes the interior architecture of this facility in space planning (figure 1), ceiling design, and a myriad of details, including the glass-wall fountain at the entry, the pattern of the carpet, and the design of ceramic tiles in bathrooms.

The ceiling of the scanner room (figure 2, A and B) is a “slice” through the nautilus shell. Segments of the shell are highlighted with fiberoptic lighting that cycles through a spectrum of color. The floor repeats the nautilus shell design in inset sheet vinyl.

The first impression of the Center, from the glass-walled entry, inspires hope in those who arrive experiencing fear and anxiety. A shaft of light from a skylight (figures 3 and 4) draws visitors to the greeter desk. The skylight glazing is embedded with a holographic prism that creates “living art” as the color spectrum, and the form it creates on floors and walls, changes continually throughout the day. The rainbow spectrum is identical to the seven chakras, or energy centers, of the body and, metaphorically, the rainbow is considered a sign of hope and a life-affirming omen in many cultures.

The waiting area has many sculptural forms, especially in its ceilings (figure 4). The vaulted wood ceilings and gypsum-board vaults and soffits would have been prohibitively expensive had they not been part of a prefabricated suspended ceiling system. Registration occurs with utmost privacy in the three concierge offices to the side of the



FIGURE 5



FIGURE 6



FIGURE 7



FIGURE 8

greeter. Patients may watch educational videos in the private nook near the greeter. Several choices are offered to enable patients to “match” the experience of waiting with their emotional mood. These include built-in banquette seating with ottomans and a high wall spiraling around it for those who desire seclusion or want to be buffered from the impending diagnosis (figure 5). For those who like to face things head-on, seating is provided across from the greeter (figure 6). Patients arriving with a spouse or friend for emotional support may choose lounge chairs facing each other.

Armed with the knowledge that experiences can be designed, the planning team focused on separation of “onstage” versus “backstage” functions. The nurses’ station, film-reading room, and gurney transport are out of sight. The circulation route to exam rooms (figure 7) has been designed with vaulted wood ceilings, cove lighting, and a custom art-glass fixture that looks like the full moon. A built-in bench allows patients with cardiac insufficiency to rest.

Exam rooms (figure 8) have an area dedicated to consultation (eye-to-eye patient/physician interface at a desk) and an area for examination. The unique design of the casework conceals the Welch Allyn diagnostic instrument panel, the sharps container, the glove box, and the blood pressure cuff behind a tambour door that rolls up and stores in the rear of the cabinet. A hinged three-panel door with rollers on the bottom is a privacy screen that “wraps” around patients in lieu of a cubicle drape (figure 9). In addition, the door screens patients’ garments and a soiled linen hamper. The hand-wash sink cabinet stores supplies and linen, has a built-in waste receptacle, and has an infrared faucet and vessel sink (figure 10). Exam rooms have vaulted ceilings with an area of wood over the exam table. All but one have views of the ocean or gardens. The wall alongside the exam table has the Center’s design motif—the Golden Mean—printed on its vinyl wallcovering. Prep rooms (figure 11) are used for injecting contrast media for certain types of PET studies.

Staff satisfaction was an important part of the equation. A break room with natural light and a conference room with a full-wall view of the ocean are coveted amenities.

Patients’ Response

Virtually every patient who enters comments on the design, according to the Center’s staff. Some say that just walking in the front door and sitting down puts them in a tranquil emotional state. Others say that the environment gives them confidence in the Center’s quality of care—they feel reassured that they have made the right decision. Patients can self-refer, and some will be reporting for a total body scan (performed in less than three minutes).

In considering the design, imagine the anxiety of



FIGURE 9

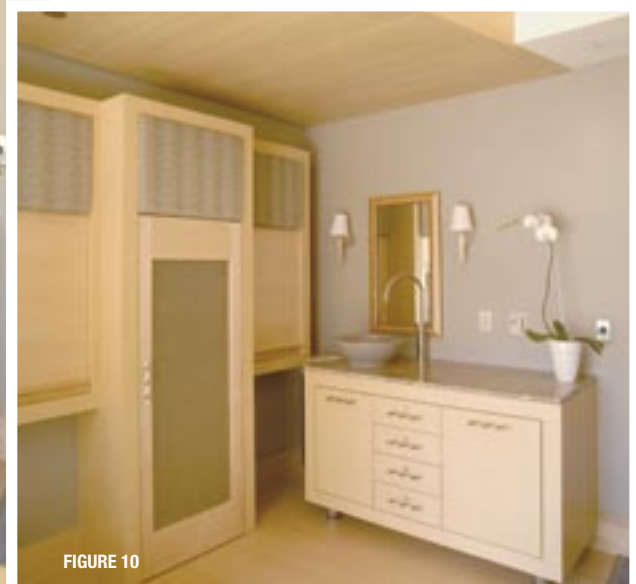


FIGURE 10

patients wondering about the results of their tests. One might walk in feeling healthy and then walk out with the knowledge that one has what appears to be a tiny tumor in a breast or a kidney, or that one's arteries are highly calcified. If employing the Golden Mean actually does create harmony that can be experienced at a subconscious level, then the curves and contours of this environment will soothe patients' anxieties. **HD**

**Psychologically Supportive Environment:
Key Features**

The goal is to put the individual in a state of mind conducive to the experiences that will follow during testing, diagnosis, and treatment. Patients should feel they are in the very best place, getting the very best care. If the design is successful, it will give them this confidence. Features include:

- no angles or sharp corners
- use of curves, variations in ceiling height
- cozy "cocoon" areas
- positive distractions (fountain at entry, interactive rainbow, educational videos)
- carpet pattern, with concentric "circles" forming the Archimedes spiral, supporting the overall design theme
- elimination of environmental stressors (noise, glare)
- emphasis on privacy
- connection to natural light throughout
- antidote to anxiety of awaiting scan results
- use of complementary colors (those opposite each other on the color wheel), which are perceived as harmonious and healing because of the yin and yang tension between them. Specific colors used: yellow (pale gold) and lavender, with "sand" neutral
- introduction of full-spectrum color through a holographic prism in the skylight, creating a continually changing "rainbow" effect throughout the day.

Jain Malkin

FIGURE 11

