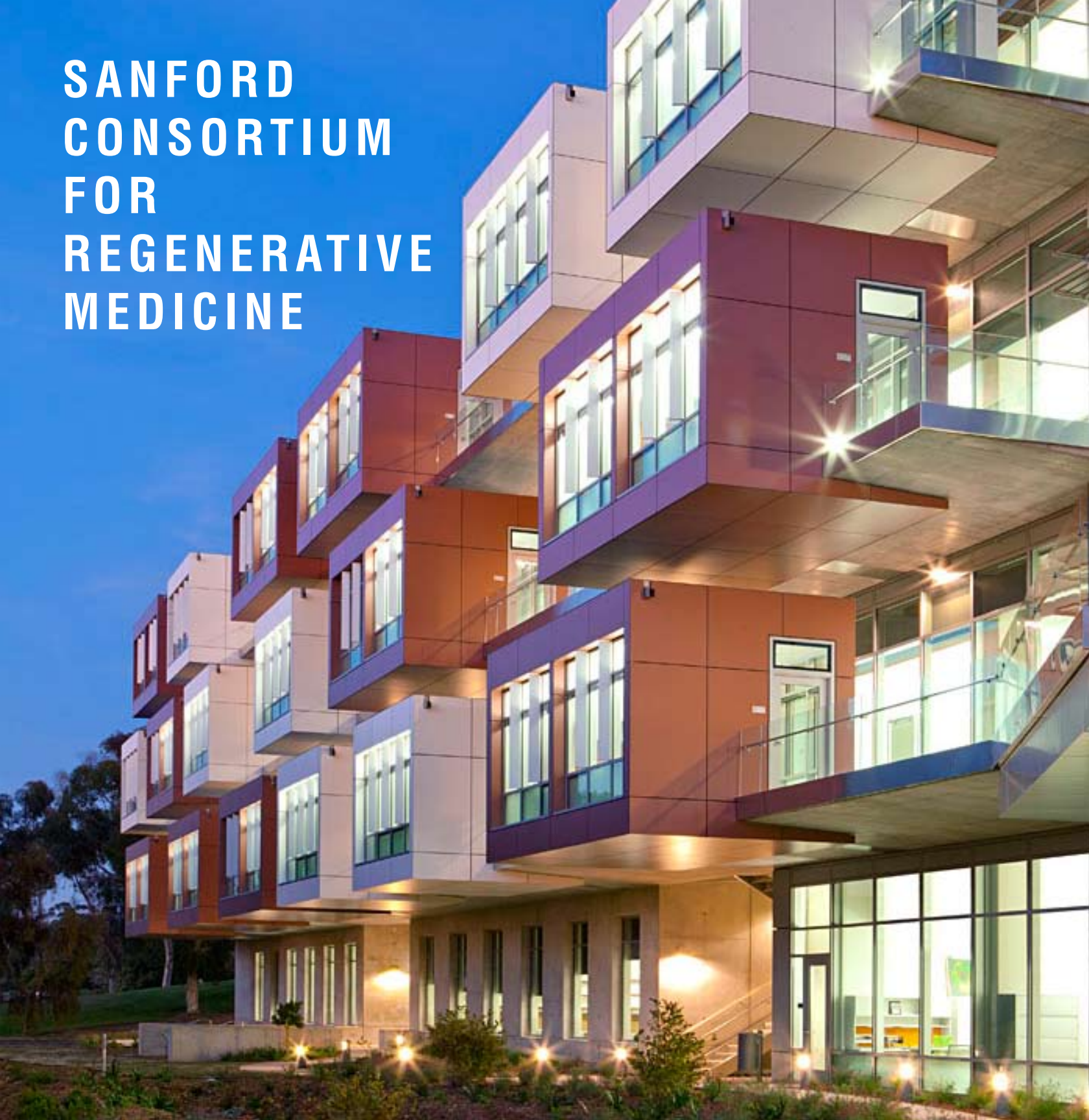
# SANFORD CONSORTIUM FOR REGENERATIVE MEDICINE



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BEACHES, BEAUTY, AND BIOTECHNOLOGY

# A PLACE OF DISCOVERY

Twelve miles north of downtown San Diego is the seaside city of La Jolla. This community of 43,000 resides along a breathtaking seven-mile strip of California coastline, an area fittingly known as “Jewel City.” Within the Jewel City is an even smaller population of people occupying a three-mile stretch of North Torrey Pines Road, the home of some of the world’s leading human health research institutes. This spot boasts what some might say is a disproportionate amount of brainpower and has been called everything from a research Mecca, to a “biotech supremacy,” but its best-known nickname is “the Mesa.”

Home to the University of California San Diego (UCSD), the Salk Institute for Biological Studies, the Sanford|Burnham Medical Research Institute, The Scripps Research Institute, the J. Craig Venter Institute, the Neurosciences Institute and the newly opened Sanford Consortium for Regenerative Medicine, the Mesa has churned out a number of Nobel Prize winners over the years, including 14 Nobel laureates who currently work in the area.

Private office “pods” reserved for the most senior researchers at the Sanford Consortium for Regenerative Medicine offer protected views that overlook the Torrey Pines Golf Course, the historic Gliderport and the Pacific Ocean.

Fentress Architects was asked to, “design a building that will enhance communications between the best minds in biomedical research.”

The most recent addition to the Mesa is the Sanford Consortium for Regenerative Medicine (Sanford). Now sharing part of the UCSD campus, Sanford is a consortium of five world leaders in life sciences research: the Salk Institute for Biological Studies, The Scripps Research Institute, the Sanford|Burnham Medical Research Institute, the University of California, San Diego and the La Jolla Institute for Allergy and Immunology. Sanford marshals the intellectual resources of these five world leaders, bringing scientists from each institution together to develop and conduct joint research and training programs in one of today's most promising scientific arenas.

Scientists from the five "Collaborating Organizations" will focus on stem cell growth and differentiation, neuroscience, cardiovascular biology, and blood cell development, pursue projects to invent tools and technologies to advance research into stem cells, and discover and develop innovative diagnostics and therapies.

UNDERSTANDING THE LIFE OF A RESEARCHER

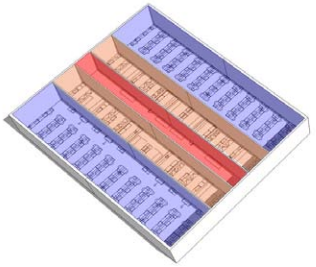
## THE BEGINNING OF A 'COLLABORATORY'

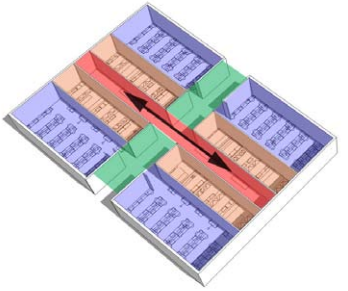
Imagine for a second that you are a researcher at the Mesa. You live, eat and breathe your research. It remains a never-ending quest for knowledge, a search for answers to some of the world's heaviest biomedical issues. Here, the life of a researcher is all-encompassing, and the day-in, day-out routine can be physically and mentally taxing. One might think that because all of these research groups work within the same campus or building, social interaction and intellectual collaboration between groups would occur.

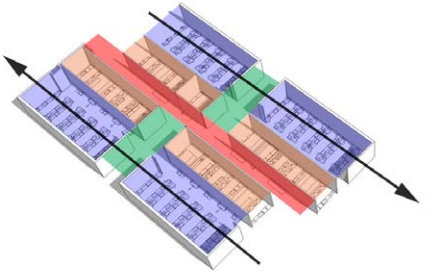
But this isn't necessarily the case, which is why Louis Coffman, vice president of the Sanford Consortium for Regenerative Medicine asked Fentress Architects to, "design a building that will enhance communications between the best minds in biomedical research." Coffman wanted to push researchers out of their comfort zones and encourage comingling between groups from each of the institutions. As for the actual research, Coffman believes that in order to clear the mind and discover true solutions, researchers should collaborate with people outside their immediate focus.

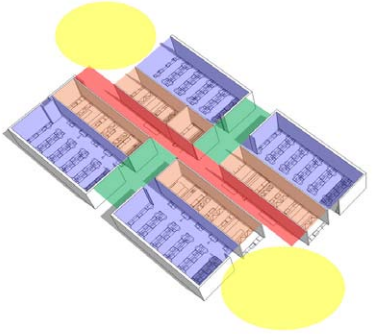
Scientists from the five “Collaborating Organizations” will focus on stem cell growth and differentiation, neuroscience, cardiovascular biology, and blood cell development, pursue projects to invent tools and technologies to advance research into stem cells, and discover and develop innovative diagnostics and therapies.

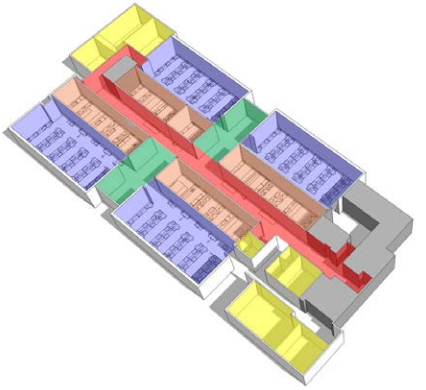
Designers shifted the lab module layout from north to south, and east to west, altering the way researchers could move throughout the building.

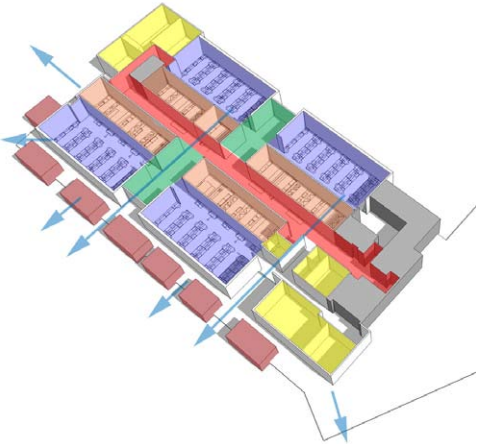


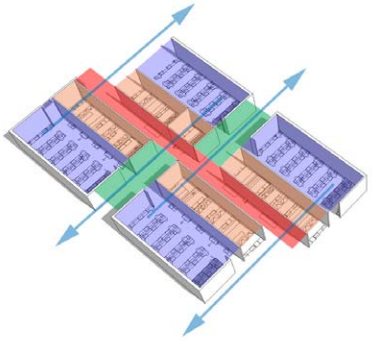


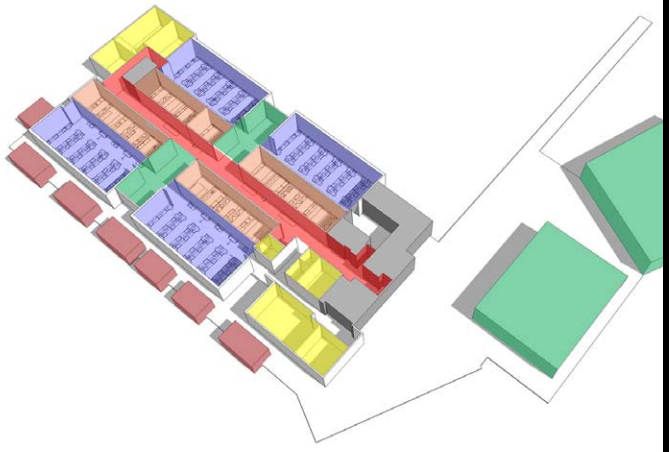












A ‘SHIFT’ IN FORM

## CREATIVITY WITH THE LAB MODULE

While each of the five entities within the consortium works well on its own, increased collaboration and interaction between groups was one of the client’s main goals. Fentress Architects was challenged to design a building that would pull researchers out of their usual territory and allow them to interact easily with one another. Interaction could mean anything from simply running into one another in the hallway, taking a mutual break outside of the lab environment, or walking together from one area to another. Fentress designers began to look at the concept of a “lab,” which is essentially a box-shaped module held to specific industry standards. Team members then asked themselves how they might build upon this standardized module in a way that would promote more interaction and collaboration.

With that idea in mind, designers decided to shift that standard lab module placement from north to south, and east to west, altering the way researchers could move throughout the building. This circulatory design shift increases the opportunity for more frequent meet-ups and mingling. In addition, the shift created spaces on each end of the building for shared two-story break rooms, which interconnect all levels of the building and encourage interaction among researchers. Stairways between floors were strategically designed as areas of “creative collision” where people and ideas intersect.

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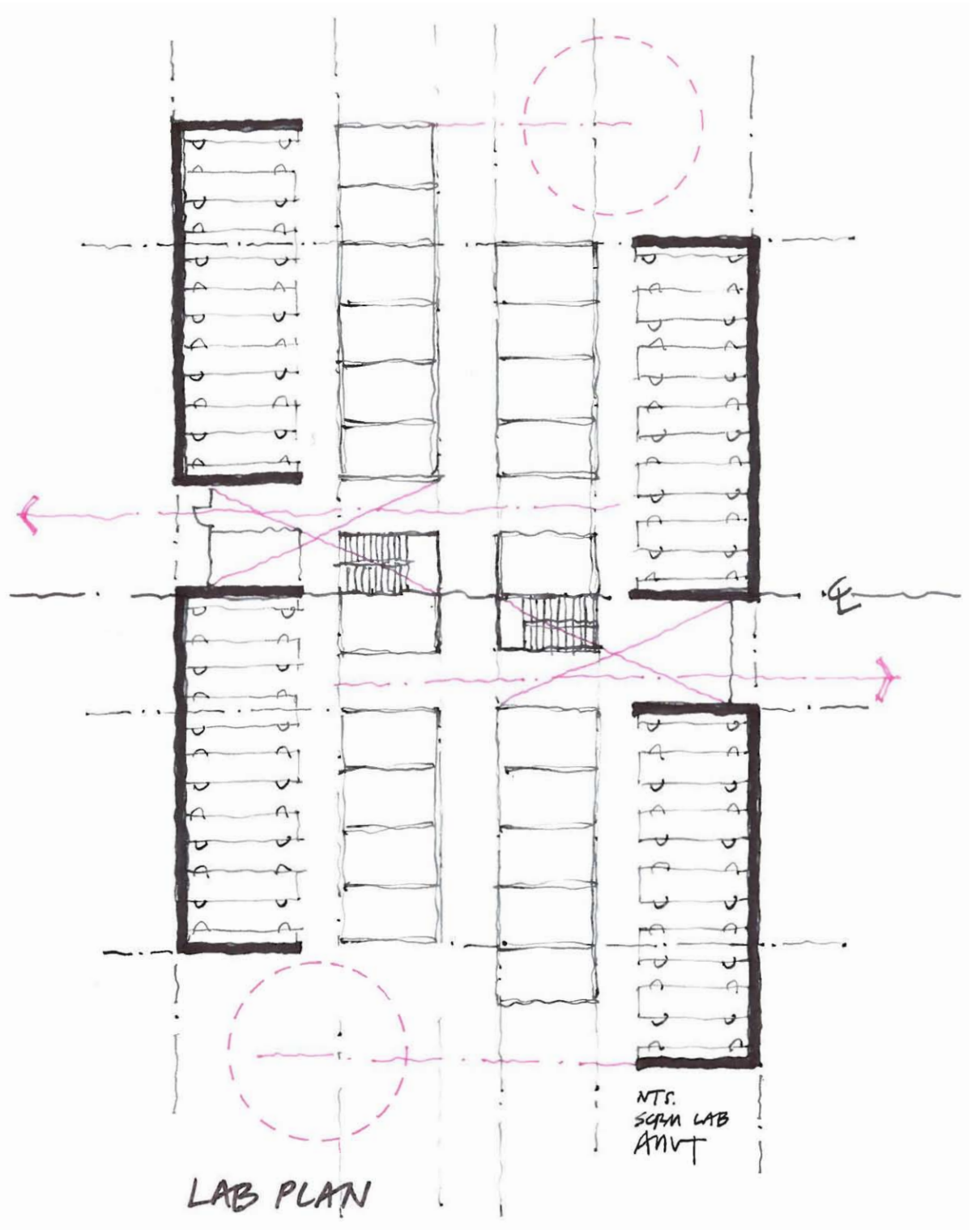


LAB PLAN

Another major design element includes private office “pods” for the most senior researchers at Sanford. Distinguishable by color, the terracotta-colored pods are junior offices, consisting of two 10’x10’ spaces, and the white pods are private senior offices, 10’x20’ in size. Strategically placed spaces between the pods promote social interaction and yet also provide intimate working spaces. Cantilevered from exterior walkways, the pods offer protected views that overlook the Torrey Pines Golf Course, the historic Gliderport and the Pacific Ocean. Inside these dynamic work spaces, the windows were thermally designed to maintain comfortable temperatures, and the surrounding office furniture is minimal, leaving room for thought.

Sanford also has a new café and a 150-seat auditorium, which are separate from the laboratory building. The client envisioned the auditorium as a place where scientists can educate the community, reach out to the public, and provide a focal point for gathering and discussion. The café has an indoor/outdoor space with glass doors that open up to a terrace that can be used for large events. An outside plaza divides the café and auditorium from the main laboratory building, allowing researchers a chance to get outside the working environment of the lab. This also makes it possible to rent out the adjacent facility for other events, providing Sanford an opportunity to generate outside revenue.

Distinguishable in color, the terracotta-colored pods are junior offices, consisting of two 10’x10’ spaces, and the white pods are private senior offices, 10’x20’ in size.

A ‘GREEN’ LANDSCAPE DESIGN

## MAINTAINING A NATURAL ENVIRONMENT

Another significant element of the Sanford project is the surrounding landscape design. A pedestrian bridge provides the main entrance to the building, passing over a restored landscape environment of orange-barked madrone trees. Eucalyptus trees that were removed from the site were later saved and reused on the ground as signature elements. These trees will be mist-irrigated as nurse logs for the regeneration of native plant life. Other green strategies include utilizing recyclable pecan chips in open areas instead of mulch, and incorporation of bioswales in the parking lots to filter water naturally. No potable water is used on the site for irrigation.


A pedestrian bridge provides the main entrance to the building, passing over a restored landscape environment of orange-barked madrone trees.

"LEED" THE WAY

# SUSTAINABILITY

The Sanford Consortium for Regenerative Medicine is on track to achieve LEED Gold certification.

## Sustainable elements include:

- Optimizing natural daylight and views to the outdoors
- Utilizing local climate to lower utility bills
- Shading devices and operable windows
- Displacement ventilation and chilled beams to enhance energy efficiency
- Use of certified wood
- Native plants and adaptive species used in the surrounding environment
- Low-flow plumbing fixtures
- Water-use efficiency improved by 40%
- Elimination of need for potable water for irrigation
- Promotes alternative transportation and public transit (bike storage and changing room)

# CONSTRUCTION BY THE NUMBERS

**5**

WORLD LEADERS
in life sciences research

**14**

NOBEL PRIZE LAUREATES
currently working at the Mesa

- 330 researchers
- 150,700 square feet
- 150-seat auditorium
- 2, two-story break rooms
- 12 junior pods
- 9 senior pods
- 420 parking spaces
- $127,000,000 project cost

TEAMWORK

# PROJECT TEAM

Sanford Consortium for Regenerative Medicine (SCRM)

OWNER
Sanford Consortium for Regenerative Medicine

DEVELOPER
Lankford & Associates, Inc./Phelps Development, LLC

ARCHITECT OF RECORD
Fentress Architects

ASSOCIATE ARCHITECT
Davis Davis Architects

CONTRACTOR
Hensel Phelps Construction Co.

LANDSCAPE ARCHITECT
Civitas, Inc.

LAB PROGRAMMER
Jacob's Consultancy-GPR

STRUCTURAL ENGINEER
Hope Engineering

CIVIL ENGINEER
Project Design Consultants

MECHANICAL, ELECTRICAL, PLUMBING ENGINEER
X-nth

GEOTECHNICAL
Geocon, Inc.

SUSTAINABILITY CONSULTANT
Kema

FOODSERVICE DESIGNER
Orness Design Group

CODE CONSULTANT
Schirmer Engineering

SPECIFICATIONS CONSULTANT
Specifications by Design

# FENTRESS PROJECT TEAM

PRINCIPAL-IN-CHARGE OF DESIGN

Curtis Fentress, FAIA, RIBA

PRINCIPAL/PROJECT MANAGER

Jeff Olson, AIA

PROJECT DESIGNER

Robin Ault, LEED AP BD+C

PROJECT ARCHITECT

Al Roberts, AIA, CDT

PROJECT CAPTAIN

Sharlene Bhyun

ARCHITECTURAL STAFF

Jesse Dzierzanowski

# FENTRESS ARCHITECTS

Fentress Architects is a global design firm that passionately pursues the creation of sustainable and iconic architecture. Together with their clients, Fentress creates inspired design to improve the human environment. Founded by Curtis Fentress in 1980, the firm has designed US$26 billion of architectural projects worldwide, visited by over 300 million people each year. Fentress is a dynamic learning organization, driven to grow its ability to design, innovate and exceed client expectations. The firm has been honored with more than 360 distinctions for design excellence and innovation, and in 2010, Curtis Fentress was recognized by the American Institute of Architects with the most prestigious award for public architecture, the Thomas Jefferson Award. Fentress has studios in Denver, Colorado; Los Angeles, California; San Jose, California; Washington, D.C.; and London, U.K. www.fentressarchitects.com

# CREDITS

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## ALL PHOTOGRAPHY UNLESS OTHERWISE STATED

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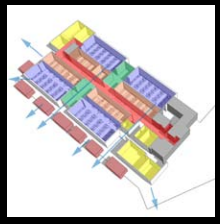

## CREATIVITY WITH THE LAB MODULE

Diagram: Robin Ault © Fentress Architects

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## CREATIVITY WITH THE LAB MODULE

Sketch: Robin Ault © Fentress Architects

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## FENTRESS ARCHITECTS

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