



## The J. Craig Venter Institute La Jolla, CA Sustainable Laboratory Facility

J. CRAIG VENTER INSTITUTE

### Fact Sheet

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#### Background/History of JCVI ▶

The JCVI is a not-for-profit genomic research institute in Rockville, MD and San Diego, CA dedicated to the advancement of the science of genomics; the understanding of its implications for society; and communication of those results to the scientific community, the public, and policymakers. Founded by J. Craig Venter, Ph.D., in 1992, the JCVI has approximately 300 scientists and staff with expertise in human and evolutionary biology, genetics, bioinformatics/informatics, information technology, high-throughput DNA sequencing, genomic policy research, and science education. For more than two decades Dr. Venter and his teams have been pioneers in genomics. From the 1990s with the discovery of expressed sequence tags (ESTs) for rapidly discovering genes, to the complete diploid human genome and construction of the first synthetic bacterial cell, JCVI researchers are at the forefront of science. It is in this spirit that JCVI scientists have embarked on a quest to help solve some of the most troubling issues facing society—global climate change and society's dependence on hydrocarbons.

#### New Sustainable Laboratory Building ▶

- The JCVI building will be a state-of-the-art, “ultra-green” 45,000 gross square foot, carbon-neutral, highly adaptable, wet laboratory and computational laboratory building on the UCSD campus.
- The building will support 125 scientists and staff.
- Researchers in the new sustainable facility will be engaged in some of the most exciting areas of genomic research including: human genomic sequencing and analysis, synthetic genomics, and environmental genomics. Specific programs currently underway (both by JCVI researchers alone and in collaboration with UCSD, SIO, Salk, and other area researchers) include: environmental metagenomics research to find, catalogue and better understand the

microbes in the oceans, soil, and the human body; research applying synthetic biology advances to microbes to help solve environmental and human health problems; improving techniques developed at JCVI to sequence the genomes of individual cells; human genomics research building on the historic sequencing of Dr. Venter's complete diploid genome, and continued work on the African genome project.

- The location will enhance and support collaborations among JCVI, UCSD, and the larger San Diego research communities.
- The JCVI building will exceed the requirements to achieve LEED Platinum certification
  - One of the first, if not the first, true “net-zero energy” biological research laboratories in the world, generating 100% of its power on site (solar power).
  - Other sustainable elements incorporated into the building include: natural day lighting and views, natural ventilation/passive cooling, rainwater harvesting, native low-water landscaping, use of regional materials, green roofs, recycled content, sustainably harvested wood
- Parking for staff and visitors will be provided in a partially below-grade parking structure underneath the building.

### **Building site Improvements**

- The site improvements for the new building are based on the design principles developed in the Scripps Upper Mesa Neighborhood Planning Study.
- One of the primary resources of this site is its views of the Pacific Ocean and the adjacency to Skeleton Canyon Ecological Reserve. JCVI landscape plan provides a setting for the building enhanced by native vegetation that improves the site's microclimate and creates a positive connection to the immediate neighborhood.
  - Rainfall runoff from the building rooftop will be stored in cisterns to provide water for irrigation cooling towers, and washing PV panels.
  - Intensive roof gardens will be installed on the first floor terraces above the garage roof.
  - The roof garden will contain flowering trees and shrubs, which will provide shade and frame the views to the ocean.
  - Extensive green roofs of grasses and succulents will be installed on the second and third floor terraces.
- The landscape along Torrey Pines Road will integrate the adjacent streetscape character with the western edge of the property, providing elements of continuity with the surrounding community.

### **Other Important Facts**

- A new median will be constructed on Torrey Pines Road to ensure optimal traffic flow into and out of the new JCVI building.
- The property on which the new JCVI building is being built will continue to feature a dog walking trail currently enjoyed by many residents of the area.
- The community soccer field will not be impacted by the new JCVI building.