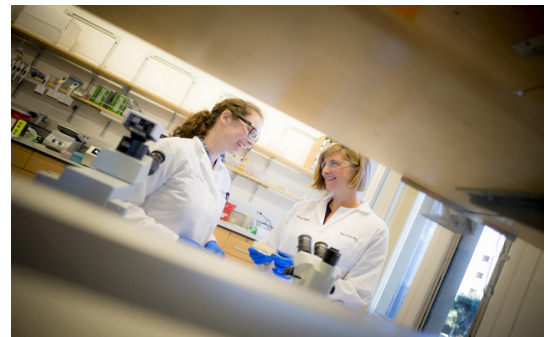


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## UC San Diego's Energy Conservation Efforts Win Top Prize in National Freezer Contest

**New lab efficiency practices help campus save 500,000 kilowatt hours of energy per year**

The University of California San Diego's commitment to reducing energy use recently garnered the campus a first place award in the North American Laboratory Freezer Challenge. The nationwide best practice competition encourages laboratories to reduce the environmental and financial costs of ultra-low temperature freezers.



The North American Laboratory Freezer Challenge is a joint program run by the nonprofits My Green Lab and the International Institute for Sustainable Laboratories. Over the course of five months, more than 200 labs participated in the inaugural competition, accruing points for saving energy and improving usage efficiency.

*Labs can be one of the largest energy consumers on university campuses. Photo by Erik Jepsen/UC San Diego Publications*

According to Allison Paradise, executive director of My Green Lab, labs are one of the largest energy consumers on university campuses.

“Typical research university lab buildings consume 40-60 percent of all energy on campus,” she explained in an interview with Nature magazine. “Of that, about 25 percent is due to lab equipment.”

Of the 34 participating organizations, UC San Diego registered the most labs—41—and placed first in the competition's academic category.

**One step closer to carbon neutrality**

From the campus's smart grid, to green buildings, and weather forecasting stations, UC San Diego energy reduction initiatives run deep. In addition, the campus is a leader in clean energy production—the campus generates about 85 percent of its own electricity using an ultra-clean and efficient cogeneration plant, the world's largest commercial fuel cell and solar panels.

By taking simple actions such as maintaining freezers and refrigerators properly, replacing old freezers with more efficient models and removing lab samples regularly to eliminate wasted storage space, UC San Diego is expected to save 500,000 kilowatt hours of energy per year—the equivalent of taking nearly 80 passenger vehicles off the road.

“This achievement is a great example of how UC San Diego is dedicated to reducing its carbon footprint,” said Gary Matthews, vice chancellor for Resource Management and Planning. “From the research our faculty and students conduct to help solve global challenges like climate change, to the equipment they use to conduct that very research, we strive to make our campus a living laboratory of sustainability.”

Matthews added that efforts to reduce carbon emissions from the campus have been underway for years, and UC San Diego has pledged to become carbon neutral by 2025.

### **UC San Diego: committed to conserving**

Thanks to the North American Laboratory Freezer Challenge, energy use in university labs is expected to decrease: the 200 participating labs will reduce energy consumption by approximately 2.7 million kilowatt hours. Furthermore, participants have discarded over 200,000 lab samples no longer in use, allowing for inefficient freezers to be retired and excessive freezer purchases to be avoided.

In addition to receiving an institutional award, two UC San Diego labs—directed by Professor Maria Vernet of Scripps Institution of Oceanography's Integrative Oceanography Division, and Professor Andrew McCulloch of the Jacobs School of Engineering Department of Bioengineering—received individual honorable mentions for their outstanding contributions to cold storage efficiency.

At UC San Diego, commitment to sustainability comprises a core component of the institutional DNA. Since its founding in 1960, the campus has been a forerunner in climate change research thanks to the innovative and collaborative contributions of faculty, staff and students. Among the university's most celebrated champions of sustainability is the late Scripps Institution of

Oceanography geochemist Charles David Keeling, whose data on increasing atmospheric carbon dioxide concentrations—known as the Keeling Curve—drew international awareness to the environmental impact of fossil fuel combustion in relation to rising global temperatures.

UC San Diego's recent accomplishments in the North American Laboratory Freezer Challenge uphold the legacy of Keeling's work by reducing the campus's carbon emissions, and thereby furthering the systemwide goal to achieve carbon neutrality (emitting net zero greenhouse gases) from all campus buildings and vehicles in the years to come.

In addition to these efforts, UC San Diego runs a partnership program with My Green Lab that collaborates with principle investigators, research staff and students to improve lab safety and resource management while maintaining the highest possible standards of research quality. Departments involved in the program include the Sustainability Office, Facilities Management, Environment, Health and Safety, Integrated Procure-to-Pay Solutions and others.

In honor of its accomplishments, UC San Diego is featured in the October issue of Nature magazine, and was presented with an award at the International Institute for Sustainable Laboratories conference in Boston.

For more information about UC San Diego's sustainability efforts, visit [sustain.ucsd.edu](https://sustain.ucsd.edu).

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UC San Diego's Studio Ten 300 offers radio and television connections for media interviews with our faculty, which can be coordinated via [studio@ucsd.edu](mailto:studio@ucsd.edu). To connect with a UC San Diego faculty expert on relevant issues and trending news stories, visit <https://ucsdnews.ucsd.edu/media-resources/faculty-experts>.