The CU Green Labs Program Benefits CU Boulder



The CU Green Labs Program serves a critical need on campus by addressing the resource-intensive and costly nature of laboratories. Research buildings are responsible for over 40% of campus building energy consumption. The program is leading and collaborating on efficiency and sustainability best practices in labs and inspiring a shift towards eco-friendly research operations at CU Boulder and beyond.



"Participating in Green Labs has opened up opportunities for me after grad school. I interviewed with top labs for postdoctoral positions, and they said that my work with Green Labs is what set me apart from other applicants."

-Tina Boville, former team lead for CU Green Labs and co-founder/CEO of Aralez Bio

Vision

Our vision is to be a national leader for sustainability in laboratory research, working to maximize the positive impacts of research investment for people and the planet while eliminating the negative effects resulting from significant resource use and waste generation.

Support for CU Green Labs means supporting the campus goal to be "the global leader in sustainability"

CU Green Labs is a national and international leader in the green labs field, influencing other institutions to create their own green labs programs. CU Boulder has committed to aggressive carbon neutrality and energy goals. A focus on reducing campus laboratory energy consumption is part of the solution. Expansion of the CU Green Labs Program will drive change for more widespread, deeper efficiency and avoided consumption by lab occupants.



COST AVOIDANCE & OTHER BENEFITS

LAB SPACE OPTIMIZATION & EFFICIENCY:

CU Green Labs vision for lab optimization will help campus avoid and minimize the need for construction of new lab space. At the high cost of ~\$1,000/sq.ft. for new lab space, every 1000 sq. ft of avoided lab space construction is a savings of \$1 million dollars.

REDUCED RISK:

Acting as experts for freezer failures and working with campus on resources needed to address freezer emergencies, CU Green Labs plays an important role in helping labs avoid the loss of research samples (which often times are irreplaceable). In just one example, CU Green Labs helped a lab in need with a failed freezer holding samples collected on grants totaling \$2.5 million dollars.

REDUCING THE NEED FOR INFRASTRUCTURE EXPANSION:

The CU Green Labs program raises awareness about utility and infrastructure efficiency, including the importance of optimizing the use of existing fume hoods. By not adding a fume hood to a lab, the university will save about \$30,000 and \$3000/year on average in ongoing energy costs.

UTILITIES:

By engaging scientists to take direct actions for energy and water savings in labs such as choosing efficient equipment and implementing efficient practices, the CU Green Labs Program is connected to electricity & water cost avoidance totaling \$1.4 million from 2009-2023.

SHARED EQUIPMENT:

CU Green Labs has played an important role in helping to shift campus culture towards more shared research equipment and led the initial effort to create the BioCore Shared Instrumentation Program. This program saved researchers ~\$3 million in avoided equipment purchases between 2018-2022 and if expanded campus-wide is projected to save \$4.5 million every year.

RECRUITMENT & RETENTION:

In the lab sustainability field, the CU Green Labs Program is a known leader that continues to be invited to speak and be published on the topic of greening labs including prestigious journals such as Nature. With the urgency of climate change and the resource-intensive nature of scientific research, CU Green Labs will benefit campus' ability to attract and retain talented students & researchers.

