



my green lab  
certification.

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## Certification Overview



my green lab.

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# My Green Lab Overview

## Who We Are

- A California-based 501-3(c) non-profit founded in 2013
- Experienced scientists and sustainability thought leaders
- Passionate people committed to laboratory sustainability

## How We Work

- Collaborate with suppliers, academics and industry groups to develop and share laboratory sustainability best practices
- Listen to feedback from our partners to drive continuous improvement
- Innovate new ways to engage the community

Building a culture of sustainability through science



**Allison Paradise**  
CEO and Founder



**Rachael Relph, PhD**  
Chief Sustainability  
Officer



# My Green Lab Programs

## Green Lab Certification



my green lab  
certification.

- Standard for laboratory sustainability best practices
- Certification criteria developed with input from suppliers, researchers, sustainability, EHS, and procurement managers

## ACT Label



- World's first eco-label for laboratory products drives accountability, consistency and transparency in environmental assessment
- Format enables users to make more informed purchasing decisions

## Freezer Challenge



- International competition to encourage cold storage best practices
- Hundreds of labs have participated
- Estimated 8.5 million kWh of energy reduced

## Center for Energy Efficient Laboratories



- Focused projects on understanding energy consumption in labs
- Used to set energy efficiency standards (Energy Star) and to establish rebate programs

## Green Chemistry



- Education on the selection of less hazardous, more benign chemicals
- Helping scientists design products or protocols that aim to reduce or eliminate the use or generation of hazardous substances



# Benefits of Green Lab Certification

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## Certification helps you:

- Bring awareness to the environmental impacts of research
- Think about your science through a new lens
- Identify opportunities to reduce waste and minimize energy and water consumption



# Laboratories Are Resource Intensive Spaces

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**More energy than  
office spaces**



**More water than  
office spaces**



**Pounds of plastic  
waste each year**



# Green Lab Certification Topics

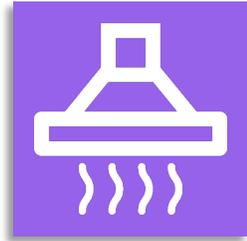
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Infrastructure  
Energy



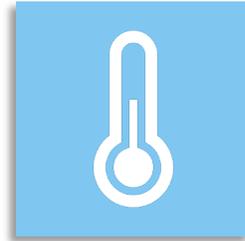
Plug Load



Fume  
Hoods



Large  
Equipment



Cold  
Storage



Water



Purchasing



Resource  
Management



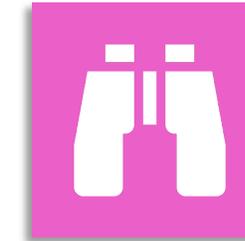
Green  
Chemistry and  
Green Biologics



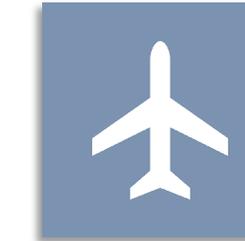
Recycling &  
Waste  
Reduction



Vivaria



Field Work



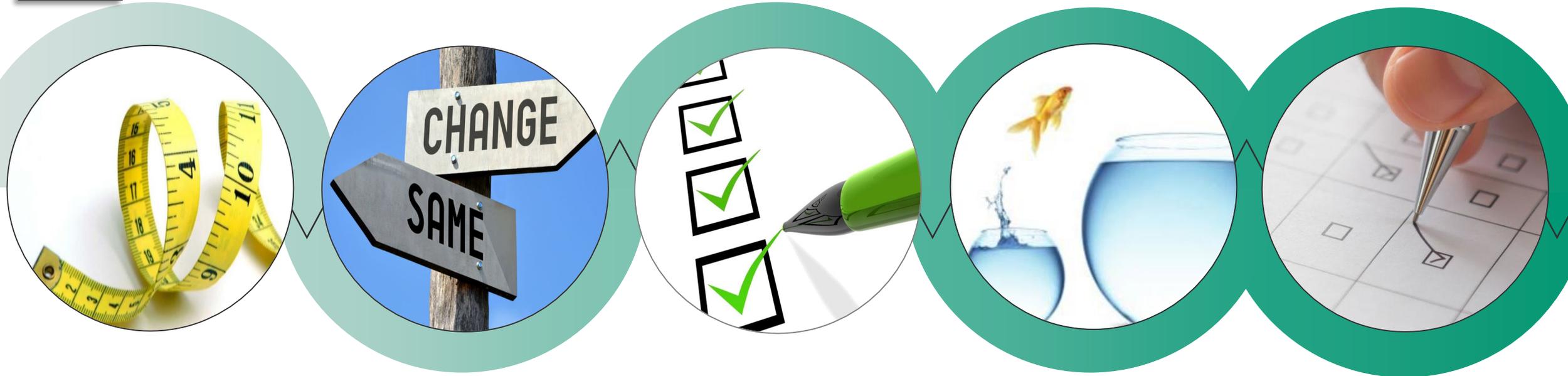
Travel



Community



# The Certification Process



## Assess Baseline

- Survey lab members to understand current practices
- Make recommendations for improvement

## Implement Changes

- Labs discuss solutions and implement behavior change practices
- Labs and Green Teams coordinate additional work

## Certification

- Re-assessed lab practices
- Certification level given
- Make recommendations for further improvement based on progress

## Implement More Changes

- Labs adopt additional policies and best practices
- Green Teams support further improvement projects

## Re-Certification

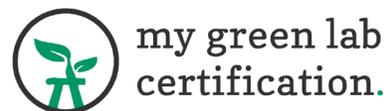
- Re-assessed lab practices
- New certification level
- Make recommendations for further improvements



# Getting Your Assessment and Certification Results

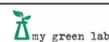
## Option 1: Feedback Report

- Comprehensive report with scores and recommendations for each question in the assessment based on the lab's responses
- Allows lab members to see how they scored on all questions and choose which improvements to focus on
- Ideal for individual labs wanting a full set of results or for organization wanting to manage their own communication of the results to the lab



Your Organization  
Your Lab  
Assessment Feedback Report

Prepared by  
Rachael Relp  
Monday, December 9, 2019



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### Score Summary

In this assessment Your Lab was scored based on 6 complete responses from the 8 people in the lab. In general, we look for at least 50% of a laboratory to take the assessment to best gauge the extent to which green lab best practices have been adopted. Fewer than that and we don't feel we get a representative view of what is being done in the lab.

Based on each person's individual responses, the paradise Lab's overall score for the assessment is



As you can see in the more detailed look at the scores from each section, there are areas where the lab is doing well and areas where you could make improvements. Any section where the score is zero indicates that the section did not apply to the lab. Next let's take a more detailed look at each of the sections to see what the lab is doing in each of these areas.



Now let's take a look at the individual questions and our recommendations. These first few questions focused on lighting and making sure that you are turning off the lights when you can.

**Q1. We turn off the lights when the lab is not in use. Select "This does not apply to the lab" if you have occupancy sensors on the lights set to turn off automatically when the lab is empty.**

Your score on this question is 50%.

**Q2. We turn off the lights when the lab is not in use. Select "This does not apply to the lab" if you have occupancy sensors on the lights set to turn off automatically when the lab is empty.**

Your score on this question is 80%.

**Q3. We turn off overhead lighting when ambient light is sufficient. If you have light sensors or ambient light is never sufficient, please select "This does not apply to the lab".**

Your score on this question is 1%.

**Q4. We have switched to LED or other solid-state lighting in the lab spaces.**

Your score on this question is 1%.

**Q5. The facilities or engineering team have optimized the ventilation in the lab to have the appropriate number of air changes based on the hazards of the lab.**

Your score on this question is 5%.

**Q6. The maintenance or engineering team have installed occupancy meters or use other measures to reduce air exchanges when the lab spaces are not occupied.**

Your score on this question is 1%.

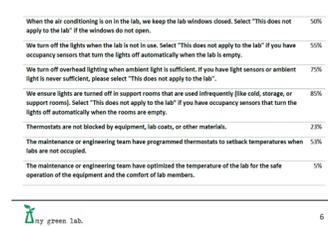
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### Infrastructure Energy

In this section we asked you questions about what you do to use the lights best and what your organization has done to optimize the ventilation and temperature in the lab.

Within a typical laboratory, at least half of the energy consumption is related to the air handling system needed to maintain air quality in the lab and keep the temperature at the appropriate level. Another nearly 15% of the energy consumed in the lab is related to the lighting. Although, as laboratory workers, you may not be in control of all these elements, you do influence them. The hazards you use in the lab dictate, in part, the ventilation requirements. Lighting and ventilation are such a large part of the energy consumption of the lab that we feel it is important to understand not only what the lab is doing to turn off the lights, but what your organization is doing to use these resources efficiently. Our hope is that by being aware of what can be done, you will advocate for improvements that can be made at your organization.

As an overview, this is how your lab scored on the questions in this section:



### Thank You

Again, congratulations on completing your green lab assessment. We are excited to be working with you and helping you find solutions to reduce the impacts of your laboratory operations.

If you need additional support or have questions, please visit the My Green Lab website at [mygreenlab.org](http://mygreenlab.org) or you can email at [info@mygreenlab.org](mailto:info@mygreenlab.org). If we don't have the answer, we will try to connect you with another member of the Green Labs Community who can help.

Best regards,



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# Getting Your Assessment and Certification Results

## Option 2: Feedback Report PLUS Summary Presentation

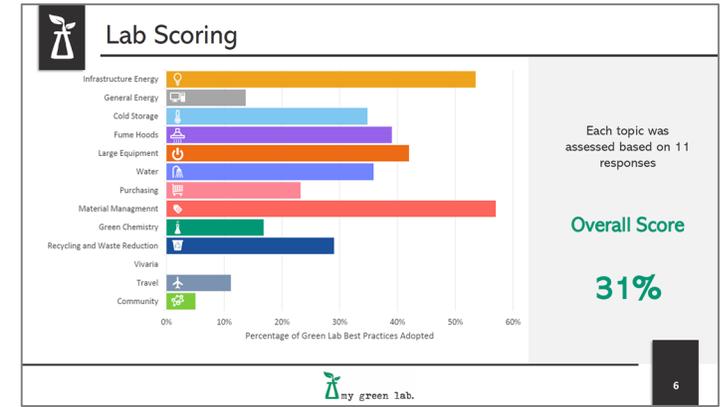
- Comprehensive report with scores and recommendations for each question in the assessment based on the lab's responses
- PLUS My Green Lab Presentation summarizing the lab's results and highlighting top strengths and two or three recommendations for improvement in each certification topic
- Ideal for organizations wanting a ready-made communication tool to share the results with the lab



### Green Lab Assessment Results

Your Name  
Your Title  
Date

In partnership with  
 my green lab.



### A Closer Look: Infrastructure Energy

 53%

#### What's Already Being Done

- 86% - Thermostats are not blocked by equipment, lab coats, or other materials.
- 84% - We keep the hallway doors closed to allow the room ventilation to run as designed.
- 82% - Lighting in hallways and shared spaces has been optimized.
- 77% - We have switched to LED or other solid-state lighting in the lab spaces.

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### A Closer Look: Infrastructure Energy

 53%

#### Simple Ways to Improve

- Work with maintenance, site operations or the engineering team to install occupancy meters to reduce air exchanges when the lab spaces are not occupied.
- Work with maintenance, site operations or the engineering team to program thermostats to setback temperatures when labs are not occupied.
- Turn off overhead lighting when ambient light is sufficient.
- Ensure lights are turned off in rooms that are used infrequently.

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# Green Lab Certification Levels

## Bronze

**40% or more** of Green Lab assessment actions implemented



## Silver

**50% or more** of Green Lab assessment actions implemented



## Gold

**60% or more** of Green Lab assessment actions implemented



## Platinum

**70% or more** of Green Lab assessment actions implemented



## Green

**80% or more** of Green Lab assessment actions implemented





# Building a Successful Program

	Ensure certification survey is aligned with sustainability goals	Establish Green Teams to support sustainability improvements	Maintain communications
Your Organization	Review self-assessment questions for alignment with your policies, procedures and sustainability goals	Bring together teams with EHS, facilities, lab personnel, procurement and others to support green lab projects	Maintain open communication with labs and refresh trainings, posters, etc.
My Green Lab	Create a semi-customized questionnaire for the organization	Support Green Team initiatives with insights on best practices, industry standards and innovative ideas to advance lab sustainability	Provide feedback report and analysis to support communications at all levels



# Investment



As a non-profit, My Green Lab's rates are offset by generous donations from corporate sponsors and private donors. As such, the total cost for these services to you is substantially reduced. For a detailed cost estimate, please contact us at [info@mygreenlab.org](mailto:info@mygreenlab.org)

**Individual lab** – for a single lab at an organization we do not have a membership agreement with

- Option 1: feedback report \$175
- Option 2: feedback report + presentation \$350

**Organizational membership** – for an organization looking to certify more than 3 labs. Combines

- Administration fees (varies by org type and size) \$1000-5000/yr
- One-time assessment customization (*recommended*) \$1000
- Results Option 1: Feedback report \$175/lab
- Results Option 2: Feedback report + presentation \$350/lab



# Thank You

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## Questions?

Please contact us at  
[rachael@mygreenlab.org](mailto:rachael@mygreenlab.org)

[www.mygreenlab.org](http://www.mygreenlab.org)

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