

Application: 0000000003

Carley Reid - czreid@fsu.edu
Green Fund Project Grant

Summary

ID: 0000000003

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Fill out an application form

Completed - Nov 17 2021

Green Fund Project Grant Application

Statement of Understanding

Teams must select a project lead who will be the point person for the duration of the project.

The project lead must sign below in order for a proposal to be considered for funding.

I hereby consent that all information provided in the above application is accurate. I agree to commit to this project should it be selected for funding. I will provide physical and technical support throughout the project lifecycle. The requesting department is responsible for any and all additional costs incurred by the project after the proposal and budget have been approved. I agree that this agreement may be electronically signed. I agree that the electronic signatures appearing on this agreement are the same as handwritten signatures for the purposes of validity, enforceability, and admissibility.

Project Lead

Name	Kristen Weeks
Title/Classification	PhD Student
Department	Chemistry and Biochemistry
Email	knw20@my.fsu.edu
Phone	8436479341

Team Members

Include information for the entire project team below. Team members should be available to see the project through to completion, and each team member should understand their role in the project. If there are less than four additional participants, leave the form blank.

Student submissions must be supported by a faculty or staff project advisor who is able to make purchases and submit receipts for reimbursement. Include the Project Advisor's information below and *complete the optional Get a Recommendation task in the application portal.*

Participant 1

Name	Carley Reid
Title/Classification	PhD Student
Department	Chemistry and Biochemistry
Email	czr20@my.fsu.edu
Phone	3865461172
Project Role	Co-lead

Participant 2

Name	Zach VanOrnman
Title/Classification	PhD Student
Department	Chemistry and Biochemistry
Email	zav18@my.fsu.edu
Phone	(No response)
Project Role	Lab Representative

Participant 3

Name	Dallas Dukes
Title/Classification	PhD Student
Department	Chemistry and Biochemistry
Email	dmd21@my.fsu.edu
Phone	(No response)
Project role	Lab Representative

Participant 4

Name	Erica Knorr
Title/Classification	PhD Student
Department	Chemistry and Biochemistry
Email	esk19e@my.fsu.edu
Phone	(No response)
Project Role	Lab Representative

Additional Team Members

(No response)

Project Title

Sustainable Disposal of Single-Use Laboratory Plastics

Project Category

Select all categories relevant to the project.

Responses Selected:

Climate action

Waste minimization

Education for sustainability

Project Description

Describe the how the project results in high-impact experiences for the campus community.

We are proposing the first glove-recycling program for the Department of Chemistry and Biochemistry at FSU. In a study done by Exeter University, it was found that 20,500 surveyed research institutes worldwide produced 5.5 million tons of plastic lab waste annually. To put this in perspective, this is equivalent to 83% of total plastic recycled globally in 2012 (Urbina, 2015). As scientists, we recognize that single use plastics are a necessity for safety and sterility, but it is still our responsibility to work more sustainably. Recently, the emergence of companies like TerraCycle have made it possible to divert our plastic waste stream into more responsible outlets.

During the summer 2021 semester, we conducted a departmental survey to assess the single-use plastics burden of the graduate level chemistry and biochemistry labs at FSU. Research groups were asked to self-report an actual count or estimate of disposable plastics purchased over a 3 month period-- additionally, we manually surveyed purchases made through SpearMart for our department. Of all disposable lab plastics, we found that gloves were by far the most consumed item. We found that our department uses and disposes of 46,800 pairs of gloves over a three month period, which is equivalent to 1,170 pounds of plastic waste. Over the course of a year, our department is estimated to produce about 5,000 pounds of plastic waste from gloves alone.

Many leading research institutions including Harvard, MIT, and Stanford have recognized and addressed the laboratory waste issue with a TerraCycle glove recycling program. Through this program, boxes are purchased and filled with used gloves before they are sent back to TerraCycle and up-cycled into community items such as park benches.

This semester, we presented a powerpoint presentation to the entire chemistry faculty where we described our preliminary data, research, and plan for tackling lab sustainability by implementing a TerraCycle glove recycling program in our department. After being asked and addressing several questions about the implementation and maintenance of our project, we were met with unanimous support from all faculty present. We as a community feel it is our duty to reduce plastics waste in the laboratory and inspire other departments at Florida State to take action for the environment. It is our goal to demonstrate that recycling in the laboratory can be done easily and efficiently, and we are hoping to be able to expand this project to include more laboratory plastics in the future.

Project Goals and Objectives

Describe the project goal(s) and objectives. For each objective, describe metrics for assessment.

Our goal is to utilize the Green Fund Grant to implement the TerraCycle glove program for 2 academic years.

Objective 1: Use funding to purchase 1 large, medium, and small TerraCycle box per floor of research laboratories in the department (6 total floors).

Objective 2: Maintain a small team of students to facilitate maintenance of program (monitoring, packing, and repurchasing boxes). The metric for assessment for this objective will be documenting weight of gloves recycled per semester in our department.

Objective 3: Encourage and share sustainable practices in our scientific community and inspire continuation of this project in our department as well as others.

Project Implementation

Detail the project timeline and steps for implementation. Include relevant dates and responsible team members for tasks when possible.

Month 1: Purchasing of boxes and distribution to respective research floors. Each team member will take responsibility for one floor.

Month 2: Team members will check on boxes, assess fill level, and tamp down gloves in boxes to maximize space.

Month 3: All team members will meet at the end of the semester to consolidate gloves into one box and prepare it for shipment back to TerraCycle. Box placement and monitoring efficiency will be assessed, and appropriate changes to maximize success of the project will be made if needed.

Each semester will repeat months 2-3 until boxes have all been filled and shipped out.

Project Sustainability

Describe on-going maintenance, funding, or other needs after the completion of the grant project. What is your strategy for supporting the project after the initial award to cover replacement, operational, and renewal costs?

We are in the process of establishing a student organization for laboratory sustainability. Our goal is to build an ongoing community that encourages scientists to act sustainably, to share sustainable practices, and to continue and create new environmental initiatives at FSU. We hope to use this grant to establish proper protocols and gather data on the implementation of this project so that it can be continued with departmental and student organization funding in the future. We hope that our pioneering of this project will prove to other departments in the campus community that sustainability in the sciences is a worthwhile endeavor.

Project Budget

Download the Green Fund Budget Template. Upload the completed budget and justify expenses in all relevant categories below.

Upload Budget

GreenFundGrant2021_WeeksReid.xlsx

Filename: GreenFundGrant2021_WeeksReid.xlsx **Size:** 15.9 kB

Budget Justification

Describe why budget line items were included in the relevant categories below and relevant cost efficiencies. Detail why each line item is categorized as Grant Request, Other Cash/Monetary Contribute, or Other In-Kind Contribution. If costs were estimated for in-kind services, explain the calculation process.

Labor	N/A
Equipment	We have included a bathroom scale in the budget form. This will allow us to collect data for the amount of gloves recycled with our program. Once filled, the boxes will be placed on the scale and measurements will be taken of the weight of each box. This will allow us to gauge the amount of glove usage in the department as well as enable us to plan for future consumption of gloves in the department for maintenance of the program. Since this equipment will allow us to gather data on usage and maintenance, it was

	included in the grant fund request.
Materials/Supplies	The budget includes boxes for the glove recycling program purchased from TerraCycle. The boxes come in three different sizes including small, medium, and large. The Terracycle website offers the most competitive prices for the services provided. The boxes are our main source of organization and transportation of the used gloves from our department. The cardboard boxes will be shipped to our department, set up by initiative representatives, and filled up by their respective labs. Purchase of these boxes includes prepaid shipping back to the recycling facility. Once they are full, the initiative team will tape the boxes and ship them directly from campus to the recycling facility. Therefore, the purchasing of the boxes enables us to ensure a smooth transition into recycling personal protective equipment in our community and was included in the grant request fund.
Land/Venue Rental	N/A
Transportation	N/A
Other	N/A

Purchasing and Reimbursement

After receiving an award, departments are responsible for purchasing supplies upfront and submitting receipts to the FluidReview grant management site.

If your department cannot purchase supplies and other materials upfront, explain the financial limitations below.

There are no foreseeable limitations on the purchasing of these boxes through means of department reimbursement. The initiative co-leads, Kristen Weeks and Carley Reid, have met and presented to the majority of faculty in the department as well as spoken to department staff to ensure proper implementation of the program.



Get a recommendation (REQUIRED FOR STUDENT SUBMISSIONS)

Recommenders



Recommender:

Brian Miller <*miller@chem.fsu.edu*>

Recommender Custom Fields:

authenticationDate (Recommender):

authenticationMethod (Recommender):

credentialType (Recommender):

fsuEduFirstName (Recommender):

fsuEduLastName (Recommender):

fsuEduOfficialEmployeeEmail (Recommender):

fsuEduOfficialStudentEmail (Recommender):

fsuEduPreferredEmail (Recommender):

isFromNewLogin (Recommender):

longTermAuthenticationRequestTokenUsed (Recommender):

samlAuthenticationStatementAuthMethod (Recommender):

successfulAuthenticationHandlers (Recommender):

Request Date:

Nov 11 2021 03:48 PM (UTC)

Content:

Form

Green Fund Project Advisor Form

About the Green Fund Project Grant

The Green Fund accepts proposals from FSU students, staff, and faculty members. Projects must align with FSU Sustainability Strategic Plan goals and should result in high-impact experiences for the campus community. Funds can be used to support on-campus infrastructure development, as well as research, educational programming, other relevant experiences that take place at FSU or in the Tallahassee area. Applications are reviewed twice a year, once in the fall semester and once in the spring semester. There is no set award amount for Green Fund Project Grants. Historically, awards have ranged from under \$100 to \$9,000. Project proposals over \$5,000 may have to consider cost-sharing between the Green Fund and a supporting department or funding source.

Student submissions must be supported by a faculty or staff project advisor who is able to make purchases and submit receipts for reimbursement. After receiving an award, ***departments are responsible for purchasing supplies upfront and submitting receipts to the FluidReview grant management site***, for reimbursement. The Green Fund will NOT reimburse students for items purchased directly. All purchases must be made through University departments/offices in compliance with FSU purchasing policies.

Project Advisor

Name	Brian Miller
Title	Professor
Department	Chemistry and Biochemistry
Email	miller@chem.fsu.edu
Phone	860-645-6570

Rate your responses to the following statements.

Use the following scale: 1: Strongly Disagree, 2: Disagree, 3: Unknown, 4: Agree, 5: Strongly Agree.

I have met with the Green Fund project team several times to review their proposal.	5
I am confident the team is well prepared to undertake this project, including access to resources necessary to complete the project.	5
The project implementation methods presented in the proposal are appropriate to the scope of the project.	5

If you responded to any of the above statements with a rating of 3 or less, please explain:

(No response)

Team Preparation

Describe the Green Fund project team's preparation. What are the team's strengths? What skills still require careful attention in the course of working on the project? (For example, technical expertise might be strong while writing skills need work.)

The project includes two graduate students, Kristen Weeks and Carley Reid, along with myself as the advisor. The team has met ~4 times over the last 2 months to develop the plan for plastic recycling in the department. Additionally, the graduate students have met with each other weekly for the past 4 months. In the course of these meetings the students surveyed and compiled a detailed list of plastic consumption in the chemistry research labs and prepared a plan of attack for reducing waste. This consisted of developing a department wide survey to quantify plastics usage, distributing it to individual labs, and analyzing data to identify the best course of action for plastics recycling. Kristen Weeks has previous experience as an undergraduate with implementing an identical TerraCycling program at her institute. Thus, she is well prepared to organize and manage the program going forward. The students also prepared a formal powerpoint presentation for the full Chemistry faculty, which they presented last month at our regular faculty meeting. The students fielded questions and provide a clear plan that the faculty unanimously supported. The team strengths include organization, effective communication, attention to detail and the ability to survey and record plastic waste consumption in individual labs within the department. I have full confidence that the proposed actions will be successfully executed and I'm fully committed to supporting these efforts.

Advisor Agreement

Green Fund project teams are expected to complete their projects in accordance with the goals, objectives, timeline, and budget laid out in project proposals. Faculty advisors are expected to guide students to successful completion of their projects. Both jobs are time-consuming and must be carried out by students and faculty members working together in a disciplined way over a sustained period. Each person has responsibility to see that the necessary work is completed on time. A clear schedule of meetings or check ins should be set up for the year.

As the project team's advisor, you are expected to mentor the team throughout the project by providing guidance for the preparation and completion of the project, by being available for periodic meetings and by remaining a source of encouragement and support for the student. You are also expected to contribute to the project by overseeing purchasing and receipt submission.

Responses Selected:

I agree to the responsibilities of a project advisor and have approved the project proposal.

FSU Green Fund Budget Template

Project Name	Sustainable Disposal of Single-Use Laboratory Plastics
Project Lead	Kristen Weeks/Carley Reid

Line item description	Category*	Unit Cost	Quantity	Total Cost	Grant Request	Other Cash/ Monetary Contribution	Other In-Kind Contribution
<i>User inputs below</i>	<i>User selects below</i>	<i>User inputs below</i>	<i>User inputs below</i>	<i>Locked formula</i>	<i>User inputs below</i>	<i>User inputs below</i>	<i>User inputs below</i>
Large recycling glove boxes	Materials/Supplies	\$420.00	6	\$2,520.00	\$2,520.00	\$0.00	\$0.00
Medium recycling glove boxes	Materials/Supplies	\$257.00	6	\$1,542.00	\$1,542.00	\$0.00	\$0.00
Small recycling glove boxes	Materials/Supplies	\$136.00	6	\$816.00	\$816.00	\$0.00	\$0.00
Scale for measurement	Equipment	\$25.00	1	\$25.00	\$25.00	\$0.00	\$0.00
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				\$0.00			
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				\$0.00			
				\$0.00			
Summary Totals				\$4,903.00	\$4,903.00	\$0.00	\$0.00