

COVER PAGE

PROJECT INFORMATION

Please complete the fields below with information regarding your project.

Project Title Green Lab Certification

Brief Description Piloting a third party green lab certification to develop capacity and resources for a McGill specific program.

Total Estimated Project Budget \$96,370.22 **Amount Requested from SPF** \$96,370.22

Campus(es) Impacted Downtown Macdonald Gault Nature Reserve Other All McGill Campuses

CONTACT INFORMATION

Project Leader

This person must be a current McGill University student, administrative staff, or academic staff.

Name	<u>Melissa Valente Paterno</u>	Affiliation	<u>Academic Staff</u>
Email	<u>melissa.valente-paterno@mcgill.ca</u>	Campus	<u>Downtown</u>
Faculty/Unit/Organization	<u>Faculty of Medicine, Department of Anatomy & Cell Biology</u>		

Project Team Members

The SPF encourages you to be inclusive, collaborative (especially between staff and students), diverse, and interdisciplinary when possible. To list more members, please complete a second cover page. You may email it to [SPF Staff](#) to include with your application.

Name	<u>Kirklann Lau</u>	Affiliation	<u>Postgraduate</u>
Email	<u>kirklann.lau@mail.mcgill.ca</u>	Faculty/Unit/Organization	<u>Faculty of Engineering</u>
Name	<u>Claire Ramsay</u>	Affiliation	<u>Postgraduate</u>
Email	<u>claire.ramsay@mail.mcgill.ca</u>	Faculty/Unit/Organization	<u>Faculty of Science</u>
Name	<u>Peng A</u>	Affiliation	<u>Postgraduate</u>
Email	<u>peng.a@mail.mcgill.ca</u>	Faculty/Unit/Organization	<u>Faculty of Science</u>
Name	<u>Asa Lind</u>	Affiliation	<u>Academic Staff</u>
Email	<u>asa.lind@mcgill.ca</u>	Faculty/Unit/Organization	<u>Faculty of Science</u>
Name	<u></u>	Affiliation	<u>Choose one.</u>
Email	<u></u>	Faculty/Unit/Organization	<u></u>

SUBMISSION INFORMATION

In line with the [SPF Eligibility Criteria](#), our team certifies that this project takes place at **McGill University**, is **sustainability focused**, is requesting **seed funding**, and is **action oriented**. Yes No

Our team has read the [SPF Terms & Conditions](#) and agrees to respect them. Yes No

Our team understands that this application is not confidential and consents to have its contents shared with relevant stakeholders during the review process and, if approved, on the SPF website. Yes No

Our team agrees to have **their contact information** included in the complete and shared application and, if approved, on the SPF website. Yes No

PART 1: PROJECT OVERVIEW

Instructions: Please answer the questions below as clearly and concisely as possible. You will be able to detail your project further in Part 2 of the Over \$5,000 application process, the Project Plan, as well as submit relevant appendices. Once you have completed this Project Overview, save it and submit it online. SPF Staff will respond with feedback on your application within two weeks and send you Part 2. Once all sections are complete, the combined application will be provided to the SPF Governance Council for their review and decision. As a reminder, all SPF applications are assessed using the [SPF Eligibility & Evaluation Criteria](#):

ELIGIBILITY CRITERIA		EVALUATION CRITERIA		
AT MCGILL	SUSTAINABILITY FOCUSED	ANALYSIS	IMPACT	FEASIBILITY
SEED FUNDING	ACTION ORIENTED	COLLABORATION	SUPPORT	CAPACITY BUILDING

Before starting, you may find it helpful to consult the [SPF Sustainability Brief](#) and the [Climate & Sustainability Strategy 2020-2025](#).

CONTEXT

Criteria assessed in this section: **SUSTAINABILITY FOCUSED, ANALYSIS**

- 1. What specific sustainability-related need/issue have you identified at McGill and aim to address through your project? In your response, please describe clearly how the need/issue is related to sustainability.** *Note: Please wait to detail your project idea in response to Question 5. Limit ~100 words*

Recently, there has been significant interest from graduate students in improving the sustainability aspects of labs, but teams lack the institutional guidance to implement changes. Due to the decentralized nature of the 900+ labs on campus, teams face logistical and operational challenges that require the collaboration of several McGill stakeholders. McGill Green Labs Initiative (GLI@McGill) would like to evaluate and certify 5 labs for their energy, waste, water consumption, etc using a 3rd party certification (MyGreenLab). This would provide an initial framework to hire a program coordinator and an intern to develop resources and a McGill-specific certification program. Both positions will be housed by MOOS.

- 2. How do you know this is a need/issue? What research have you done on this need/issue (e.g. consultation, observation, survey)?** *Limit ~100 words*

The GLI@McGill community comprising 60 members, has expressed the need for this application. Currently, 900+ labs exist at McGill which accounts for 16% of the physical campus BUT consumes over 46% of McGill's energy. Despite the best efforts of the GLI@McGill community, the SP0265 Green Labs Expansion envelope, Sustainable Labs Checklist, and Sustainable Labs Working Group, GLIs are still facing significant barriers. These barriers and responses from a recently McGill distributed survey, clearly indicate that a program coordinator and intern to accompany lab teams through sustainable changes is necessary to create a long-lasting culture change at McGill.

- 3. What relevant information and/or best practices have you found that relate to this need/issue? In addition to information from external sources, detail any relevant related initiatives (past or current) that you are aware of at McGill.** *Limit ~100 words*

At least 4 other U15 universities have a green lab certification effort/program. Additionally, many US universities also have such a program with a paid program coordinator and team (ex: University of Alabama Birmingham). Internally, any SP0265 funded project is adjacently related to this application. There do exist other "green lab certification" programs similar to MyGreenLabs (ex: LEAF, Synergie Santee Environment). However, these are not as well established as the MyGreenLab Certification. Lastly, there are also multitudes of blogs, websites, companies ... etc that can help sustainable lab efforts - GLI@McGill is following/looking into these as adjacent helpers to this overall project/goal (ex: Labconciuous)

4. What expertise or qualifications does your team have regarding this need/issue, if any? *Limit ~100 words*

Cumulatively, the GLI@McGill community has been working on "Green Lab" related events, projects, tasks, applications ... etc since 2018. thus we have gathered quite a bit of information. However, we all work on a volunteer basis which makes consistency and documentation are an issue. On the other hand, we are very passionate about this topic and have the first-hand lab work experience needed to be able to judge/see the waste generated from research!

PROJECT IDEA

*Criteria assessed in this section: **ALL ELIGIBILITY & EVALUATION CRITERIA***

5. What is your project idea? Please describe the idea thoroughly and concisely. Identify how SPF funding will be used, key contributions to sustainability at McGill, and, if your project is happening in different stages, core phases in the project. *Note: You may also share how the project is new or how it complements, builds upon, or scales existing initiatives. Limit ~400 words*

Firstly, the project would hold a 5 lab MyGreenLab certification pilot study which can provide the baseline, guidance, and framework required to help jump-start a McGill-specific Green Lab Certification Program. Secondly, the project will have a GLI-Sustainability officer + intern to help consolidate, create/run the McGill Green Lab Certification program from the ground up and, most importantly, help support/structure the GLI@McGill projects/community for a successful future.

SPF funding will be used for: the 5 lab pilot study from MyGreenLabs, provide salary for this GLI-Sustainability officer + intern, and to fund outreach materials that will help the GLI-Sustainability officer/intern with their tasks. The key contributions to McGill Sustainability are; the framework/baseline to support a long-lasting culture change within McGill research labs via the GLI@McGill community, supporting the contribution of McGill's research labs towards the university's "Zero Waste" goal, and organizing/consolidation of all "Green Lab" initiatives/information/resources within one location by one individual.

The project should happen in 3 phases. Phase #1 consists of running the 5 lab pilot project under the close monitoring/help of the GLI-Sustainability officer + intern, while concurrently mapping the "Green Lab" projects within and outside of McGill and conducting a needs assessment across McGill. Phase #2 consists of developing a McGill-specific Green Lab Certification Program while expanding the education of "green lab" initiatives at McGill by networking with all the necessary stakeholders. Phase #3 involves the piloting and full-scale launch of the McGill-Specific Green Lab Certification Program and the development of as many additional resources as possible at McGill (ex: EHS sustainability training, Lab recycling programs, ACT labels [Accountability, Consistency, and Transparency Environmental Impact Factor] in McGill Market Place, Freezer Challenge etc). A McGill specific Green Lab certification program is required because of; the cost for the MGL version and the McGill specific resources required. Past the SPF funding, any remaining projects and the upkeep for the McGill Green Lab Certification will be continued by the GLI Intern position, housed at MOOS.

Lastly, this project both builds upon and scales all SP0265 applications, SP0240, and SP0208 because it helps to structure/guide the GLI@McGill labs/projects.

In conclusion, there has been about \$100,000 of SPF awarded to green lab practices. However, teams are struggling to implement changes due to the institutional barriers they face; barriers that a GLI-Sustainability Officer could help navigate with a standardized green lab certification program.

- 6. Is your project related to the University's [Climate & Sustainability Strategy 2020-2025](#)? Yes No**
- 7. Is your project related to the University's [Equity, Diversity & Inclusion Strategic Plan 2020-2025](#)? Yes No**
- 8. If you answered yes to Question 6 or 7, how does it relate? Please refer to the relevant strategy category, theme, goal, and/or action in your response. *Limit ~200 words***

This project relates to McGill's 2020-2025 Climate & Sustainability Strategy through the "zero waste goal" and the "carbon neutrality" goal.

Through the reduction/diversion of research lab waste, we are consequently helping McGill achieve this "zero waste" goal. Also, through proactive actions/initiatives like the freezer challenge and "shut the sash" project, labs are helping McGill reach their carbon neutrality goal through significant energy usage reductions.

Actions related to green labs have been included in past Climate strategies and the current 2020-2025 strategy specifically mentions the launch of a "green lab certification program" on page 17 of the Research & Education category.

TRANSFORMING CAMPUS

Criteria assessed in this section: **AT MCGILL, IMPACT**

9. In the table below, describe your proposed project's 2-5 main impacts on the McGill community or its main goals to accomplish. Please check the stakeholders that will be impacted. Finally, list at least one key **success indicator** for each impact (e.g. # people will be engaged, % waste will be diverted, # buildings certified). Note: Indicate a realistic target for each success indicator (e.g., rather than "# people engaged," include a target such as "50 people engaged").

Main Impacts/Goals		McGill Stakeholders Impacted (check all that apply)	Key Success Indicator(s)
REQUIRED	1 Complete the pilot Study with 5 labs.	<input checked="" type="checkbox"/> Undergraduate <input checked="" type="checkbox"/> Academic Staff <input checked="" type="checkbox"/> Postgraduate <input checked="" type="checkbox"/> Admin. Staff <input type="checkbox"/> Alumni	The 5 pilot labs receive at least a Bronze certification (or higher)
	2 Amalgamation of all GLI resources + clear benchmarking for a McGill-specific Green Lab Certification	<input checked="" type="checkbox"/> Undergraduate <input checked="" type="checkbox"/> Academic Staff <input checked="" type="checkbox"/> Postgraduate <input checked="" type="checkbox"/> Admin. Staff <input type="checkbox"/> Alumni	Benchmark 10 checklist green lab actions and have a suite of online green lab resources.
OPTIONAL	3 Design/execute a McGill-specific Green Lab Certification Program.	<input checked="" type="checkbox"/> Undergraduate <input checked="" type="checkbox"/> Academic Staff <input checked="" type="checkbox"/> Postgraduate <input checked="" type="checkbox"/> Admin. Staff <input type="checkbox"/> Alumni	Certify 10+ labs in multiple buildings/campuses.
	4 Creating/implementing McGill-specific Green Reduce/Reuse/Recycle initiatives.	<input checked="" type="checkbox"/> Undergraduate <input checked="" type="checkbox"/> Academic Staff <input checked="" type="checkbox"/> Postgraduate <input checked="" type="checkbox"/> Admin. Staff <input type="checkbox"/> Alumni	Track the amount of various "lab waste" diverted in lbs, # of items, or \$ savings.
	5 Bring together the McGill GLI community by hosting a "Green Lab Networking Meeting" to connect teams	<input checked="" type="checkbox"/> Undergraduate <input checked="" type="checkbox"/> Academic Staff <input checked="" type="checkbox"/> Postgraduate <input checked="" type="checkbox"/> Admin. Staff <input checked="" type="checkbox"/> Alumni	Have 5-10 GLI teams/stakeholders attend a meeting once per semester.

10. Have you considered implementing your project at more than one McGill campus? (e.g. If your project is downtown, could it be implemented at Macdonald Campus as well?)

Yes No

11. Please describe your choice of campus(es) and why this choice is best for your project. Limit ~150 words

We choose to focus on the downtown campus to start with. However, upon implementation of the McGill-Specific Green Lab Certification, this project can apply to all McGill wet labs regardless of their campus location. If needed, some Macdonald specific guidelines or resources will be added when the McGill specific certification program is ready for expansion.

To complete the application process, please submit this form on the SPF website. The SPF Staff will be in touch regarding your application within two weeks and will send you Part 2 for the Over \$5,000 application process, the Project Plan.

PART 2: PROJECT PLAN

Instructions: Please answer the questions below as clearly and concisely as possible. Once you have completed this Project Plan, save it and submit it online. SPF Staff will respond with feedback on your application within 2 weeks. Once all sections are complete, the combined application will be provided to the SPF Governance Council for their review and decision. As a reminder, all SPF applications are assessed using the [SPF Eligibility & Evaluation Criteria](#):

ELIGIBILITY CRITERIA		EVALUATION CRITERIA		
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SEED FUNDING	ACTION ORIENTED	COLLABORATION	SUPPORT	CAPACITY BUILDING

IMPLEMENTATION

Criteria assessed in this section: **ACTION ORIENTED, FEASIBILITY, IMPACT**

- List the key **activities** for your project and indicate the timing for these on the right. Please be specific and realistic when formulating your activities, ensuring that they are achievable within the indicated timeframe.

Key Project Activities	Start Date (DD-MM-YY)	End Date (DD-MM-YY)
Baseline assessment of MyGreenLabs - Certification Program in all 5 pilot labs	31-01-2022	14-02-2022
Receival of results from MygreenLabs	14-02-2022	28-02-2022
Implementation of as many green lab changes 1 to 6 months	28-02-2022	01-08-2022
GL Sustainability Officer overseeing pilot study while developing foundation for McGill certification	31-01-2022	10-10-2022
GL Sustainability Officer/Intern benchmarking of green lab community worldwide and at McGill	31-01-2022	29-03-2022
GL Sustainability Officer/Intern develops certification actions with stakeholders	31-02-2022	31-01-2023
Certification of all pilot labs and final wrap up within labs	01-08-2022	22-08-2022
GL Sustainability Officer McGill-specific green lab certification program presentation/optimization	01-08-2022	29-08-2022
GL Sustainability Officer re-certification of pilot labs using McGill certification (pilot group input)	05-09-2022	05-10-2022
GL Sustainability Officer launch of McGill Green Lab certification to 5 NEW labs in 2 buildings	10-10-2022	31-01-2023
GL Sustainability Officer/Intern deciding key resources with stakeholders for certification expansion	01-08-2022	01-11-2022
GL Sustainability Officer open up McGill Green Lab certification to ALL interested labs	01-11-2022	31-01-2023
GL Sustainability Officer/Intern look into and set up at least 2 new green initiatives to pilot in labs	31-02-2022	01-08-2022
GL Sustainability Officer/Intern expands a least 2 new green initiatives to all labs	01-08-2022	31-01-2023
Hire GL Sustainability Officer	31-01-2022	31-01-2023
Hire GL Intern	31-01-2022	31-01-2023

- Please describe what will happen to your project after the SPF funding ends. Additionally, please share if anything will be produced or installed (e.g. a workshop guide, equipment, a toolkit, a network, website, etc.) and indicate future maintenance plans. *Limit ~200 words*

Upon ending this SPF, stakeholders will evaluate the benefits of the GL Sustainability Officer. Concurrently, paid positions like this officer will be re-evaluated within the worldwide green lab community. If this yields a positive net goal for McGill's future, then institutionalization of this position should be strongly considered. Regardless of institutionalization, the GL Sustainability Officer would have accomplished the following. They would have produced an up-to-date thorough benchmarking of the green labs' community inside and outside McGill. They would have amassed an organized pile of resources to be shared as a tool kit with the GLI@McGill community. They would have unified the GLI@McGill community and coordinated with key campus stakeholders in Energy Management, Buildings & Grounds, EHS, Procurement Services, and building operations to streamline/implement green lab practices across campus. They would have overseen the lab certification pilot study, then customized and launched a McGill-specific Green Lab Certification. They would have developed and launched several novel green projects within labs. If institutionalized, the Green Lab Sustainability Officer will further develop all these tasks. If not institutionalized, these tasks will be maintained by the GLI-intern position who will be institutionalise at MOOS to fit with the existing engagement programs.

3. Please list any potential risks associated with your project and the measures you will take to reduce their likelihood.

Main Risks	Preventative Measures
Finding the right candidate for the Green Lab Sustainability Officer job	Work with Sustainability & McGill to have candidates. Utilize GLI@McGill which has graduating M.Sc./Ph.D candidates.
The project/plan being overwhelming for the Green Lab Sustainability Officer	Shona Watt/GLI@McGill community have information. Key members of GLI@McGill can help the GL Sustainability Officer.
Not successfully connecting with the proper stake holders	Shona Watt/GLI@McGill community have contacts already and have assessed which stakeholders are interested.
The program disintergrates after 1 year if the position isn't institutionalized	All knowledge will be also held by MOOS and the Sustainable Labs Working Group for continued future lab certification.

STAKEHOLDER ENGAGEMENT

Criteria assessed in this section: **AT MCGILL, COLLABORATION, SUPPORT, CAPACITY BUILDING**

4. Please list all the key stakeholders involved in your project, indicating their role and support. If the stakeholder has provided a support letter, please indicate so here and attach it as an appendix document. *Note: Projects involving modifying a space on campus, making a permanent installation, hiring a full-time staff, or adding/modifying a garden, etc., must seek permission from the appropriate stakeholder(s) (e.g. building director, Campus Planning and Development Office, staff supervisor, etc.). SPF Staff can help you assess if any key stakeholders need to be added to your list.*

Stakeholder's Name(s)	Title	Role in the Project	Support/Permission	Support Letter
Christian Bouchard	Hazardous Waste Mgmt Supervisor	Sustainable Labs Working Group Representative	Confirmed	Yes
Lauren MacDonald	Sustainability Officer Implementation	Help strategize the project plan	Confirmed	Yes
Bruce Lennox	Dean of Science	Project strategy support	Confirmed	Yes
Theresa Degenhard	GLI@Neuro team leader	Close collaborator within GLI	Confirmed	Yes
Dieter Reinhardt	Professor, Researcher and Safety officer SAD	SAD/safety collaboration	Confirmed	Yes
Kirkland Lau	Contact person for the Biointerface Lab	pilot lab 1, representative for general piotot lab questions	Confirmed	Yes
Claire Ramsay	Contact person for the Abouheif Lab	pilot lab 2	Confirmed	Yes
Peng A	Contact person for the Weber Lab	pilot lab 3	Confirmed	Yes
Kristina Ohrvall	Assistant VP Innovation & Research	Project support + high level lab design	Confirmed	Yes
Shona Watt	Sustainability Manager	Project support, Supervisor of GLI Sustainability officer& intern	Confirmed	Yes

5. How will you communicate about your project and share its impacts with your stakeholders and the McGill community? Please describe your tactics (e.g. social media, workshops, tabling, newsletters, etc.) and any related timing (e.g. at the beginning, during, or after the project). Related activities can also be included in Question 1. *Limit ~200 words*

In the beginning, the GL Sustainability Officer will mostly network with two main parties; the GLI@McGill community using their dedicated Slack Channel, and the relevant McGill stakeholders (Env Health & Safety, Hazardous Waste Mgmt, Building & grounds ... etc). As the GL Sustainability Officer gets more established, they will host a monthly meeting with all stakeholders involved. This will keep all parties up to date with the project progress and provide an open iterative improvement process. Once the McGill-specific certification program is launched at full expansion, we will advertise it using the GLI slack, building and/or departmental meetings, departmental email lists, EHS emailing list, social media (Facebook/Instagram), word of mouth. Other related activities, where information can be disseminated throughout the process, are GLI@McGill social/fundraising events.

6. If applicable, are there any training, volunteer opportunities, jobs, or complementary applied student research integrated in your project? Please describe. *Limit ~100 words*

Already included are a full-time GL Sustainabilty officer job and an intern position for McGill Sustainability. Moreover, GLI@McGill graduate student volunteers are the primary driver of green lab initiatives because they have an integral role in their lab spaces. They train the new undergraduates to apply green lab actions and they push their principal investigators to care about green lab initiatives! However, these volunteers require help coordinating/centralizing all GLI projects/materials. A GL Sustainability Officer & Intern will help these volunteers

unlock significant changes, implement a long-lasting culture change in their labs, and successfully move their green projects forward.

PROJECT BUDGET

Criteria assessed in this section: [FEASIBILITY](#)

Revenues

Indicate any funding you will receive or may receive to complete your project, including funds from McGill departments and units.

Funding Source(s)	Amount Requested	Request Status
Sustainability Projects Fund (SPF)	\$96,370.22	Requested
	\$0.00	Choose one.
	\$0.00	Choose one.
	\$0.00	Choose one.
REVENUES GRAND TOTAL (must match Expenses Grand Total)	\$96,370.22	

Expenses

Indicate your project expenses below. Please remember to include tax and shipping costs, if any.

Item Description	Unit Cost	# of Units	Total Cost	Expense paid by SPF?
Community and engagement supplies (E.g. signage, events, stickers, prizes)	\$10,000.00	1	\$10,000.00	Yes, fully
My Green Labs - Green Lab Certification	\$1,000.00	5	\$5,000.00	Yes, fully
	\$0.00		\$ 0.00	Choose one.
	\$0.00		\$ 0.00	Choose one.
	\$0.00		\$ 0.00	Choose one.
	\$0.00		\$ 0.00	Choose one.
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	\$0.00		\$ 0.00	Choose one.
	\$0.00		\$ 0.00	Choose one.
	\$0.00		\$ 0.00	Choose one.
	\$0.00		\$ 0.00	Choose one.
	\$0.00		\$ 0.00	Choose one.
Expenses Subtotal			\$15,000.00	

Salaries & Wages

If applicable, please indicate any paid positions needed for your project. Please note: if you complete this Salaries & Wages section, you must also complete the [Staff Position Information Appendix](#).

Position Title	~# Hours per Week	~# Weeks	Hourly Wage	Subtotal	+ 20% Benefits	Total Cost	Funding Sources
GLI Sustainability Officer (Term M4)	33	52	\$34.97	\$60,008.52	1.2	\$72,010.22	
Intern	10	52	\$15.00	\$7,800.00	1.2	\$9,360.00	
			\$0.00	\$ 0.00	1.2	\$ 0.00	
			\$0.00	\$ 0.00	1.2	\$ 0.00	
Salaries & Wages Subtotal						\$81,370.22	

EXPENSES GRAND TOTAL (must match Revenues Grand Total)	\$96,370.22
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APPENDIX

Relevant Support Documents

List any appendix documents in order in the table below.

Please keep the total number of pages as low as possible (recommended max 10). Please include any relevant support letters.

Doc #	Appendix Document Title	# of Pages
1	GLI@McGill Sep 2021 Survey Results	8
2	MyGreenLabs - Project proposal	3
3	Support Letter - Christian Bouchard Supervisor of HWM & Dr.Dieter Reinhardt Saftey Officer of SAD	2
4	Support Letter - Lauren MacDonald	1
5	Support Letter - Dean of Science Bruce Lennox	1
6	Support Letter - Kirk Lau on the behlaf of all pilot labs	1
7	Support Letter - Theresa Degenhard GLI@Neuro team leader	1
8	Support Letter - Kristina Ohrvall	1
9	Support Letter - Shona Watt	1
10	Staff Position Information Appendix , if applicable	3



McGill

Hazardous Waste Management Gestion des déchets dangereux

Dear SPF Governance Council,

As the Manager of the Hazardous Waste Management department of McGill University and Chair of the Sustainable Labs Working Group (SLWG), I wish to voice my support for the Green Lab Certification project submitted by Ms. Melissa Valente-Paterno.

Our department is responsible for the proper disposal of all hazardous waste coming from research laboratories on campus; therefore, we have a privileged link with those laboratories to implement proper disposal guidelines, including more sustainable initiatives. I am aware of how challenging it is to improve sustainability when operating a research laboratory. There are not many tools out there to help improve sustainability in labs, and "My Green Lab" is one that I find interesting as a baseline to help McGill build a proper structure for sustainable laboratories on all our campuses. I believe this project is a good opportunity to move forward as an institution and help McGill meet their goals for the Climate & Sustainability Strategy 2020-2025.

I, therefore, support this initiative's request for funding from the Sustainability Projects Fund.

Sincerely,

Christian Bouchard | Gestionnaire, Gestion des Déchets Dangereux - Manager, Hazardous Waste Management |
Université McGill | Édifice McIntyre building 3655 Sir William Osler salle/room 129 | Montréal, Québec, Canada,
H3G 1Y6 | T: (514) 298-5066



SPF Governance Council
McGill University

October 12, 2021

Dieter P. Reinhardt, PhD
McGill University
Distinguished James McGill Professor
Canada Research Chair Tier 1 Laureate in Cell-Matrix Biology
Faculty of Medicine and Health Sciences / Faculty of Dentistry
Department of Anatomy and Cell Biology
3640 University Street, Room 1/14
Montreal, Quebec H3A 0C7, Canada
Tel.: +1 514 398 4243
E-Mail: dieter.reinhardt@mcgill.ca

Dear members of the SPF Governance Council,

This letter is in support of the application for a green lab certification pilot study organized by McGill Sustainability and the McGill Green Lab Initiative. I am a Professor and Principal Investigator in the Department of Anatomy and Cell Biology located on the downtown campus. I have about 16 years of experience operating a research lab at McGill. With this experience, I am aware of the significant amount of waste products a regular lab produces, as well as the required energy consumption.

While I am trying in my personal life to actively lead “a greener life”, I am often concerned about the professional activities in the labs in terms of CO₂ footprint we produce daily. This includes the use of plastic pipettes, protective gloves, electrical energy, water, and many more critical aspects. However, I find that implementing a greener way of lab operation is restricted by several factors. The most prominent aspect is the funding, which often determines the operational possibilities that are not always the most waste and energy reducing possibilities. Another factor is operational convenience, for example it is much easier to use plastic pipettes, whereas it would be much better to use glass pipettes that are washable. These are only a few examples. Overall, given the steadily increasing global need to reduce waste products and CO₂ footprints, I believe that the more than 900 research laboratories at McGill would be a great target to help with this goal. However, currently, clear guidance and useful resources are very limited.

As an excellent start, the green lab certification pilot study should provide a baseline from which labs can start to implement changes in an organized, straightforward, and unified method. I believe it would help Principal Investigators to start thinking and acting to achieve greener and more energy efficient labs. If every wet lab at McGill will eventually reduce its CO₂ footprint, this will accumulate to a very large effect at McGill as a whole. This will contribute to McGill’s leading role in Montreal, Quebec and Canada in reducing overall greenhouse gas emissions within a reasonable time frame.

As a Department Safety Chair and as Co-Chair of the Faculty of Medicine and Health Sciences Safety Committee, I am also very interested in combining greener lab initiatives with safety-related aspects in the department and faculty. In this regard, I would be happy to help implement new green lab actions with the help of McGill’s Environmental Health and Safety. For example, we have recently implemented a “Working Alone Policy” in the Department of Anatomy and Cell Biology. Principally, students and lab personnel are discouraged working alone primarily for safety reasons. However, at the same time this policy contributes to green efforts in the labs, because it discourages single individuals to use the lab resources alone, including lightning, heating, and ventilation.

In summary, I am enthusiastically supporting the green lab certification pilot study without reservations with the serious hope that it will kickstart at McGill a sustained change in lab operating culture towards a reduced load on our environment and planet.

Sincerely,

A handwritten signature in blue ink that reads "D. Reinhardt".

Dieter Reinhardt
Distinguished James McGill Professor



DÉVELOPPEMENT
DURABLE
MCGILL
SUSTAINABILITY



McGill

Office of
Sustainability

November 1st, 2021

Dear SPF Governance Council,

As the Sustainability Officer responsible for supporting the implementation of McGill's Climate & Sustainability Strategy 2020-2025, I wish to voice my support for the Green Lab Certification project.

The project will start a green lab certification program, which is an action in the Research & Education category of the Climate & Sustainability Strategy. Completing this action will greatly contribute to the University's role, as a research and educational institution, to produce learning outcomes that create aware and engaged citizens while taking responsibility for the environmental, economic, and social implications of research.

I also think this project is important because it will help move the needle forward on the University's long-term target of becoming zero-waste by 2035. In carrying out my role of providing strategic support for the zero-waste target, I have seen a number of ad-hoc waste initiatives in labs over the years. For example, the campaign to dispose of hazardous chemicals safely in labs and the dishwasher to help re-use laboratory plastics in academic research laboratories. However, there is a lack of central coordination for green lab practices. By funding centralized human resources to oversee a green lab certification program that will combine practices such as energy & water savings, recycling, etc., this project will bring McGill one step closer to reaching a diversion rate of 90% and achieving our target of becoming zero-waste by 2035.

I therefore strongly encourage and support this initiative's request for funding from the Sustainability Projects Fund.

Sincerely,

Lauren MacDonald

Lauren MacDonald

Sustainability Officer (Implementation), Office of Sustainability



McGill

Faculty of Science Faculté des sciences

October 15, 2021.

Dear Sustainability Projects Fund Governance Council,

On behalf of the Faculty of Science, I am writing to express my support for the SPF application regarding the Green Labs certification program and associated resources.

The Faculty of Science is home to at least a couple hundred labs, each with their own particular research focus, location, and operational challenge. Beyond the research topics related to sustainability topics, I see many opportunities to adjust the Faculty's practices to better align with McGill's targets for waste and greenhouse gas reductions.

The creation of a Green Lab Framework is a wonderful way to structure and advance previous *ad hoc* projects, such as the "shut your sash" fumehood energy reduction campaign that involved research and teaching labs in Otto Maass Chemistry, and resources to transition to Green Chemistry. Graduate students in particular play an influential role as change agents in their labs, as we see in the labs that they are volunteering to pursue the My Green Labs pilot certification. I am pleased to see that McGill will be able to scale up initiatives to a wider scale and expand on resources available to labs across campus.

The Green Lab certification program will provide a framework for individual labs to work toward more sustainable practices, in the Faculty of Science and beyond. Creating a suite of resources and staff support is key to teams' long-term success with setting up new initiatives.

McGill's commitment to sustainability in research is exemplified by a project on which I serve as the Academic Lead: the New Vic. The New Vic will balance nature and heritage with functionality and sustainability. Echoing its academic mission, the project will follow advanced principles of sustainable infrastructure (including labs) and design, including LEED Gold certification, while returning greenspace to Mount Royal and creating new public thoroughways to the mountain. As the New Vic will be functional within a few years' time, lessons learned from the green lab certification process can be helpful to incorporate sustainability practices into our new spaces.

Regards,

R. Bruce Lennox
Dean of Science
Tomlinson Professor of Chemistry
Academic Lead, New Vic Project

Office of the Dean

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2021 – 09 – 28

Dear SPF Governance Council,

As a Green Labs Initiative (GLI) representative at one of McGill's many wet labs, I wish to voice my support for Green Lab Certification program.

I am personally part of the Biointerfaces Lab in the Wong Building as a researcher. As someone who uses a wet-lab adjacent space, I regularly use materials such as plastic tubes, multiwellplates, and a wide variety of chemicals and reagents in the lab space. Our lab generates a substantial amount of such waste in our day to day operations and experiments.

As a GLI representative, I am part of the community of scientists, researchers, technicians, and professors across McGill engaged in a broader conversation towards improving the sustainability of our lab practices. We are all concerned about the impact of our current work and activities on the environment.

With this in mind, I volunteered to be the representative for my lab to participate in this Green Lab Certification program. This program will allow an external group of experts to assess the lab practices of my lab through an iterative and interactive process. In my opinion, this project will help my lab find blind spots in our lab practices where waste and energy usage can be reduced.

I will support this project by coordinating communication with the external team of Green Lab Certification experts. I will be distributing any messages and urging my fellow lab-mates to participate in surveys, and will be coordinating discussions about lab sustainability during our group meetings. I will also be responsible for leading efforts to implement the suggested changes presented by the Green Lab Certification experts. This will be the case for all other labs involved in this process.

I therefore strongly encourage and support this initiative's request for funding from the Sustainability Project Fund.

Sincerely,



Kirk Lau
Ph.D Candidate Materials Engineering



Claire Ramsay
Ph.D Candidate, Biology, Lasko/Abouheif labs



Peng A
Ph.D Candidate, Biology, Weber Lab



Åsa Lind
Lab manager, Biology & Redpath Museum, Barrett Lab

To whom it may concern,

Montreal, October 2021

As the representative of the Green Labs Initiative at The Neuro, I wish to voice my support for The Green Labs Certification program at McGill University.

The Green Labs Initiative (GLI) at The Neuro was the first student-led GLI on McGill ground founded in 2018. We focus on advancing the environmental sustainability in research areas, as we realised the strong impact of the way we conduct research. Especially wet lab areas require a large amount of single-use plastics and a high consumption of energy and water.

Yet, we believe that we can create a McGill wide change in our behaviour.

We are excited that we could expand our institutional initiative, collaborate with newly arising GLIs across McGill Campus and support strong projects such as The Green Labs Certification program.

The proposed The Green Labs Certification program will help to create a framework for change. It will help McGill to identify the needs of different lab environments to implement changes and improve their actions. It will identify barriers and challenges we need to overcome in the present to improve our future and will also allow us to use the generated knowledge to educate current and future researchers.

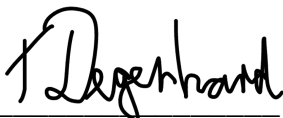
Our GLI at The Neuro strongly believes that the planned project will be of great success for the sustainability advancements at McGill University.

We are happy to support the five volunteering labs and the program initiative by offering advice on sustainable lab practices, sharing experiences and our networking abilities.

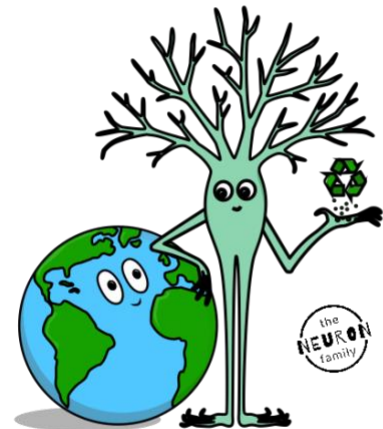
Whatever will be needed, we are happy to be invested and supportive.

In conclusion, I strongly encourage the request for funding from the Sustainability Projects Fund to support an extraordinary and innovative initiative for a sustainable future of McGill University.

Sincerely,



Theresa Degenhard
Project Manager
The Green Labs Initiative at The Neuro



Green Labs Initiative @ the Neuro



McGill

Kristina Ohrvall

Assistant Vice-Principal
(Research and Innovation)
McGill University
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October 6, 2021

Dear Sustainability Projects Fund Governance Council,

McGill continues its reputation as one of the top research-intensive institutions in Canada and the world. My role is to help McGill capitalize on opportunities for the funding of major large-scale projects and to ensure that these projects are executed to the highest possible standards. Integrating sustainable lab considerations is one way to enhance McGill research activities and operations. I feel that this project application for a green lab certification program is in line with McGill's priorities.

McGill aims to raise the profile of our research activities by acting as an agent of change and driving continuous improvements in how McGill identifies, develops, proposes, and manages world-class, large-scale research initiatives. McGill University strives to be a leader in sustainability, and labs offer another area for the McGill community to make a difference.

The creation of a green lab certification program will provide a framework for individual labs to work toward more sustainable practices. Creating a suite of resources and staff support will ensure that teams are accompanied through the steps necessary to setting up new initiatives.

A few years ago, my team was involved in the Sustainable Labs Working Group, so I'm aware of this effort and support it wholeheartedly. It seems like a great idea to get funding for dedicated staff to assist research labs who want to act and get a certificate.

I support this project and look forward to seeing these sustainable practices implemented.

Sincerely,

Kristina Ohrvall
Assistant Vice-Principal (Research and Innovation)



October 29, 2021

Dear SPF Governance Council,

As McGill Office of Sustainability (MOOS) Sustainability Manager, I commit to supervising the Green Lab Sustainability Officer and intern. While you are familiar with my work as SPF Steward, my portfolio also encompasses MOOS-run sustainability engagement programs. These suite of engagement programs provide frameworks, support networks, and resources to encourage adoption of sustainability best practices by the McGill community. My team runs several engagement programs and related communications for students and staff: SKILLS21 sustainability training sessions for students, Organizational Development (OD) sustainability training sessions for staff, the Student Sustainability Network, Sustainable Ambassadors program, the Sustainable Workplace Certification program, and the Sustainable Event Certification program.

MOOS has seen an enormous interest and momentum for green lab practices in the past two years. Graduate students across downtown and Mac campus have put in a tremendous amount of time and effort to implement measures to recycle and reduce waste, save energy, and increase awareness of best practices in labs. However, most initiatives have not come to full fruition due to the highly decentralized nature of labs and the lack of institutional capacity and coordination. This is discouraging and disempowering students and lab managers, who otherwise have an incredible amount of passion and energy to dedicate to improving lab practices. I believe setting up a green lab certification program and accompanying resources will provide the guidance and support that labs need to bring their ideas into reality.

I was thrilled when I heard that Melissa Valente-Paterno was interested in setting up the first pieces of a sustainable labs certification program by piloting My Green Lab. I believe that a successful program will need to be customized to McGill's unique situation and decentralized lab structures, and that piloting My Green Lab with five labs will gather valuable information about what checklist actions work on campus, what doesn't, and what resources and support will be necessary.

If this project is approved for SPF funding, I will work with Melissa to hire the Green Lab Sustainability Officer and intern and onboard them to ensure they have the tools for success in this position. I will supervise both positions, and at the end of the 1 year SPF funding, MOOS will continue to contribute the funds for the green lab intern. This will ensure the daily functioning (certifying teams, updating resources, etc) of the green lab certification program for the long-term future.

Sincerely,

Shona Watt

Sustainability Manager

STAFF POSITION INFORMATION

Please complete the fields below with information regarding the position that you would like to fund through your project. Should you have more than one type of position, please fill and attach a form for each position.

Position Title	Green Lab Sustainability Officer and Intern
Brief Description of Role	They will; oversee the MyGreenLab Certification pilot, develop a McGill-specific Lab certification program and suite of resources.

1. **This position is:** New Already exists on campus

2. **Please describe which McGill unit/department/group/association will host the position.** *Limit ~100 words*

As these positions will require the collaboration of several departments (Env Health & Safety, Hazardous Waste Management, etc), the McGill Office of Sustainability would be the ideal host for this position. MOOS is well placed to engage stakeholders due to pre-existing connections, and they are well prepared for green lab projects due to the existing SPF grants and Shona Watt's GLI research/exposure. MOOS will also ensure that the big-picture sustainability targets/goals remain the main focus instead of a narrowed field of view that might occur with other departments (ex: energy or waste). Lastly, the creation of a green lab certification program is an action item in the Climate & Sustainability Strategy.

3. **Who will supervise the employee? Please list the supervisor's name and role at McGill.** *Note: The supervisor must provide a letter detailing their commitment. Please include this in the application appendix. Limit ~100 words*

MOOS Sustainability Manager, Shona Watt will supervise these employees. Shona's primary job responsibilities revolve around the SPF, but her portfolio also includes the oversight of communications and engagement programs (sustainable events program, sustainable workplace program, sustainability ambassadors, undergrad skills workshops, etc). She also has an in-depth understanding of what is needed for this position and has already laid down foundational work for it. The Green Labs project follows a similar model to the Sustainable Events and Sustainable Workplace Certification programs, so green labs seems like a natural fit for the sustainability engagement portfolio.

4. **Employee's Location(s):** Downtown Macdonald Gault Other: remote work 50%

5. **Please provide a detailed task list and/or job description.** *Limit ~400 words*

- The Green Lab Sustainability Officer & Intern will be responsible for the following.
- Working closely with the MyGreenLab (MGL) Green Lab Certification program, which includes the MGL support group and the 5 pilot study labs.
- Benchmarking the Green Lab community both worldwide and McGill-specific.
- Using the MGL Certification to plan, develop and execute a McGill-specific Green Lab Certification.
- Providing holistic support for the University's emerging Green Labs program including green lab certification program implementation, multi-stakeholder development, communications, and analyses
- Advancing McGill's Green Lab Certification program to increase the number of laboratories to acquire a certification and increase visibility of those who are certified with the GIS team and others
- Amalgamating and organizing green lab-related resources by networking with all McGill stakeholders.
- Organizing, hosting, and recording regular Green Lab meetings for all stakeholders.
- Collaborating with EHS staff to incorporate sustainability practices and educational materials into trainings and audits
- Developing resources for Green Laboratory Chemical/ Reagent alternatives; working with Procurement to provide & promote alternatives to laboratory managers (e.g. eco-friendly label certification on McGill Marketplace)
- In conjunction with MOOS Communications Officer, develop articles, guides, and other written materials to support green lab initiatives
- Lastly, they will optimize existing online green lab projects/challenges/programs to serve the McGill community and implement them within differing buildings/campuses.

6. **Working hours:** Full time Part time *If part time, indicate hours per week:* _____
7. **Wages:** Salaried Hourly pay *Indicate salary or hourly wage:* _____
8. **Please share how you have determined the hours and wages included in the budget.** *Limit ~200 words*

Currently, the promotion of green lab best practices does not fall under one particular unit. Despite existing resources of \$90,000 SPF funding (SP0265 and SP0240), a Sustainable Labs Working Group, and a Sustainable Labs Guide, many GLI teams require a McGill staff person to facilitate their projects. With over 200 buildings at McGill, 900 labs, and a very decentralized structure, there are a plethora of opportunities. A full-time green labs sustainability officer and part-time Intern would be able to provide the guidance and development of the certification and resources to leverage the existing interest. The GL Sustainability Officer position could be a term M casual with the potential opportunity for renewal for additional years. Lastly, similarly tasked full-time positions have been implemented in other universities such as the John Hopkins Institute for Nanobiotechnology and the University of Alabama Birmingham.

9. **If applicable, please share how you will integrate the employee into the existing team/group structure.** *Limit ~100 words*

Integration into the GLI community, the MOOS team, and the McGill network is imperative for this position. Shona Watt will handle integration into MOOS. Introduction/integration into the GLI community will be done via; a community chat group, monthly community meetings, and networking with active key members. All of these tasks will be arranged by Melissa Valente Paterno. The MOOS office already has connections to the key stakeholders. Shona and Melissa will transfer as much information as possible and set up introductory meetings for the GL Sustainability Officer & Intern; thus allowing networking/trust to be built upon steadily. Having a specific GL contact team is a great start for stakeholder engagement.

10. **What will happen to the position after the project funding concludes? Is there an intent to institutionalize this position?** *Limit ~200 words*

Ideally, with the proper support, the intent would be to institutionalize the GL Sustainability Officer position. This position is required for the future success of the McGill Green Labs movement. This position is also essential for the research waste diversion contribution towards McGill's "zero waste goal" in the current 2020-2025 Climate & Sustainability Strategy. Lastly, positions such as this have been trialed and finally institutionalized at the John Hopkins Institute for Nanobiotechnology and the University of Alabama Birmingham. If this position is terminated, then all GL documents/programs will try to be maintained by the GL Intern and the GLI@McGill volunteers.

11. If applicable, please briefly describe how you plan to recruit the employee. *Limit ~200 words*

We see a lot of passionate graduate students working on green lab practices, so an ideal candidate would be one who has already been involved in green labs initiatives in some way, ideally at McGill. We intend to post this position in the GLI Slack, and disseminate through the local GLI teams (e.g. Lady Davis Institute, Neuro, Strathcona Anatomy & Dentistry, etc), PGSS environment committee, and on traditional environmental job boards like GoodWork Canada and on LinkedIn.

12. My project team already has a candidate in mind to fill this position: Yes No

If yes, please disclose. *You may wish to attach a CV for the candidate in the application appendix. Limit ~100 words*