

Memorandum

Office of the Vice-Principal (Research and Innovation)

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TO: Board of Governors

FROM: Dr. Rose Goldstein, Vice-Principal (Research and Innovation)

SUBJECT: Grant Application to MacArthur Foundation 100&Change

DATE: October 6, 2016

DOCUMENT #: GD16-08

ACTION ☐ INFORMATION ☐ APPROVAL/DECISION

REQUIRED:

ISSUE & EXPECTED

OUTCOME

Approval is sought to submit a grant application for \$100 million (USD) to the MacArthur Foundation 100&Change program entitled "Eliminate Synthetic Plastics". The proposal is led by Principal Investigator Robin Rogers, Canada Excellence Research Chair in Green Chemistry and Green Chemicals.

BACKGROUND & RATIONALE

Competition: 100&Change is a new program launched by the MacArthur Foundation. It will select **one** bold proposal world-wide that demonstrates great promise towards solving a critical problem of our time and award a \$100 million grant (USD) to help make that solution a reality.

About the Proposal: Prof. Rogers proposes to develop processes for the development of new material based on biomass. The research will use ionic liquids as solvents for biomass dissolution and isolate biopolymers with the ultimate goal of replacing polymers synthesized from oil. This process will be under strict scrutiny of toxicological and life cycle analyses, to warranty the sustainability of the process. Knowledge generated will be freely shared among international partners.

McGill Process: An internal selection to identify a project suitable to this competition took place in the summer of 2016. Six letters of intent were received and the VP (Research and Innovation), in consultation with a group of five Deans, selected the proposal of Prof. Robin Rogers as the one most suited to be endorsed by McGill for the competition.

Timeline: The deadline for the first, preliminary phase of the competition was October 3, 2016. Due to the timeline of the competition, the application was submitted conditional on the approval of the Board. The competition guidelines indicate that a written authorization of the submission may be requested from the applicant's organization. Next steps:

- A panel of five expert judges will review and score each valid proposal
- Up to ten Semi-Finalists will be announced in December 2016
- From this group, a smaller number of Finalists will be selected. These Finalists will present their solutions at a live event in the fall of 2017
- Selection of the final award recipient by MacArthur's Board of Directors

ALIGNMENT WITH MISSION AND STRATEGIC PRIORITIES	The proposal is aligned with McGill's Strategic Research Plan priorities. Sustainability is one of the five core idea underpinning the plan and will strengthen McGill's reputation as a world class leading institution in the field in Sustainable Sciences. Whether the proposal is selected or not to move to the semi-finalist round, it will further McGill's strategic priority in Sustainability Sciences by increasing visibility, attracting philanthropy, and promoting networking with other international collaborators in the field of green chemistry.
COMPLIANCE WITH UNIVERSITY POLICY	This request is presented to the Board in accordance with the provisions of the <i>Regulations Relating to the Approval of Contracts and Signing Authority</i> . The Principal is authorized to sign, on behalf of the University, grant applications valued up to \$25 million. The current proposal is over this threshold.
COMPLIANCE WITH LEGISLATION/ EXTERNAL REGULATIONS	This proposal has been prepared according to the guidelines and the rules of the MacArthur Foundation 100&Change competition. An MOU with international partners has been developed and signed prior to submission. McGill Legal Counsel reviewed the MOU. If the project is approved for funding, an award agreement will be developed between McGill and each of the international partners for the transfer of funds. A template for such agreement is available and will require Legal review prior to signing.
RISK FACTORS	The project involves several international partners. McGill will have responsibility to report back to the MacArthur Foundation on the use of grant funds, including the use of the funds transferred to the international partners. At this stage the proposal includes a brief monitoring and evaluation plan. If selected as a semi-finalist, McGill, with the assistance of the MacArthur Foundation, will submit a detailed monitoring, evaluation and learning plan. The plan will include metrics and targets to be achieved by the end of the award period. MacArthur Foundation will require an evaluation performed by an external evaluator, included in the grant budget.
SUSTAINABILITY CONSIDERATIONS	The goal of this project is to further research and find solutions to the unsustainable practice of synthesizing plastics from oil. In addition, the project seeks to find alternatives under strict scrutiny of toxicological and life cycle analyses, to warranty the sustainability of the process. Finally, the proposal includes a section on how the project will sustain itself after the grant money is spent so that the solutions found are durable and implemented.
IMPACT OF DECISION AND NEXT STEPS	As the value of this proposal exceeds the Principal's signing authority, the submission is conditional upon Board approval. Decisions for the next phase of the application process are expected to be announced by December 2016. Final selection among the finalists, if McGill's project advances to the next stage, will occur in September 2017. Payment of grant funds to the successful institution would begin during the 2017-2018 fiscal year.

MOTION OR RESOLUTION FOR APPROVAL	Be it resolved that the Board of Governors, on the recommendation of the Vice-Principal (Research and Innovation), approve the submission of a grant application valued at \$100 million (USD) in support of the proposal entitled "Eliminate Synthetic Plastics" to the MacArthur Foundation 100&Change Program and authorize the Principal or the Principal's delegate to sign any related documents, provided that where necessary, they are reviewed by Legal Services.
APPENDICES	The submitted application is available upon request.