

I. Objective

The MEDx High Risk, High Impact Challenge provides seed funding for interdisciplinary high-risk, high-impact projects focusing on a human-health related research problem. This request for proposals (RFP) welcomes applications with an investigator each from Duke Engineering and Medicine, and can include an additional investigator from a complementary discipline. Early-stage projects that are high-risk/high-impact, but are unlikely to receive funding from traditional funding agencies without preliminary data are strongly encouraged. Projects should propose radical or transformative ideas, and not incremental advances.

II. Award Information

Ordinarily, awards will range from \$25,000-\$50,000. While the awards are meant for projects that can demonstrate success in a 12-month period, with demonstration of success, up to \$25K in supplemental funding to support up to 6 months of additional work is also possible (See Section III c). Up to three (3) awards will be made, **with at least one award targeted towards early career investigators** (see III b).

III. Eligibility Requirements & Risk Management

Eligibility Criteria:

- a. The project team must have one Primary Investigator each with appointments in the Pratt School of Engineering and the Duke University School of Medicine (SoM). If there is a third investigator, they can have an appointment in any Duke School or Institute.
- b. For consideration as an opportunity for early career investigators, both Primary Investigators from Pratt and SoM must be non-tenured (tenure, research, or teaching track) faculty members.

Risk Management:

- c. In the application, teams will outline milestones to be achieved at 6 months and 12 months. At 6 months, teams will present on progress to the Evaluation Committee (EC) and the EC will decide to:
 1. Continue the proposed project for to the 12 months of the original application and the original request of up to a maximum of \$50K.
 2. Terminate the project if success seems unlikely.
 3. Allow for a change in aims, to pursue a more promising avenue of research [12 months, \$50K maximum budget].
 4. Continue the project, grant additional funds [for a maximum of \$75K] and extend the project to 18 months total, with additional milestones added as necessary.

IV. Application Guidelines

Note that preliminary data are not required for this RFP.

Pre-submission inquiries are mandatory. Applicants must submit the [pre-submission inquiry in the form of a 'Proposal Canvas'](#). Once submitted, the MEDx team will review the material, schedule a consultation with the applicants, and invite applicants for the full submission. The pre-submission 'Proposal Canvas' must be submitted to (Donna Crenshaw, donna.crenshaw@duke.edu or Tarun Saxena, tarun.saxena@duke.edu). Please name the file using the following format: *lastname_lastname_canvas*

Full application: Only invited applicants can apply. Applications must be submitted via a Qualtrics Survey no later than August 16, 2021.

To apply, please submit:

1. A 2-page-or-less proposal (at least 0.5-inch margins, 11-point font or larger, PDF file format) that briefly addresses the following in language accessible to a general audience:
 - a. What is the problem being addressed, and why is it important for human health?
 - b. Why is this proposal radical or transformative?
 - c. Who/which communities/beneficiaries would be affected, and how?
 - d. What is your approach? How is it different from other approaches? Is the approach innovative?
 - e. Although no preliminary data are required, how does your experience enable you to approach the problem?
 - f. What is the impact this project will produce? How will you measure success?

- g. An outline of milestones to be achieved at 6 months and 12 months.
2. A rough one-page budget with individual budgets for each investigator. Budgets must indicate personnel, equipment, and other related costs. Please do not indicate indirect costs on budget. This RFP only covers direct costs. Note that only a maximum of \$25K will be released for the first 6 months.
3. A one-page appendix with figures and/or references (optional).
4. A one-page description of the facilities and resources that will be required to complete the work. Please indicate if these are available to you.
5. Standard NIH biosketches for all collaborating investigators.

NOTE: Combine items 1-5 into a single PDF in the prescribed order above, and name the file using the following format:
lastname_lastname_application title

V. Evaluation Criteria

Please note the following regarding application evaluation:

1. Applications will be evaluated on their significance to human health; novelty or potential for being transformative; complementarity of the research team; and ability to execute the project in the proposed time-frame.
2. The EC will consist of a group of experts with proven records of accomplishment for bridging multiple disciplines, thereby providing a broad perspective. With this in mind, applications should not be written for a specialist audience.
3. At the 6-month EC meeting, MEDx may invite additional, potential, supporters for the project, in consultation with the awardees.

VI. Reporting Requirements

Awardees will:

1. Present their progress to the EC at 6 months from project start.
2. Submit 12 month and 18 month (if necessary) written progress reports.
3. Provide quarterly updates to the MEDx team in informal, verbal meetings.
4. Provide annual progress metrics for a period of 5 years post project completion.

VII. Budget Guidelines

The budget period is for 12 months. Up to \$50,000 in direct costs may be requested. If Institutional Review Board (IRB) or Institutional Animal Care and Use Committee (IACUC) review or approval is required, funding will not be released until such approval is obtained.

1. Grant funds may be budgeted for:
 - a. Research support personnel or students/trainees
 - b. Small equipment, research supplies and core lab costs, or
 - c. Other purposes deemed necessary for the successful execution of the proposed project
2. Grant funds may not be budgeted for:
 - a. Salary support for the faculty collaborators
 - b. Effort for students, post-doctoral trainees or fellows on training grant equivalents
 - c. Capital equipment
 - d. Office supplies or communication costs, including printing
 - e. Meals or travel, including to conferences, except as required to collect data
 - f. Professional education or training
 - g. Computers or audiovisual equipment
 - h. Manuscript preparation and submission
 - i. Indirect costs
 - j. Subcontracts to other institutions
 - k. Foreign components, as defined in the NIH Grants Policy Statement

3. Awarded funds must be used to conduct the work proposed. MEDx reserves the right to revoke funding in the event it is determined that funds were not spent in accordance with the approved proposal or if progress are not submitted upon request.

VIII. Contact Information

Please contact Donna Crenshaw (donna.crenshaw@duke.edu) or Tarun Saxena (tarun.saxena@duke.edu) with any questions. Please use *MEDx High Risk High Impact Challenge* as the subject heading.