

**INSTRUCTIONS FOR COMPLETED APPLICATION FOR DUKE/DUKE-NUS PILOT PROJECTS****Duke / Duke-NUS Research Collaboration Pilot Project**  
**Request for Proposals for funding in 2024**

Duke University (Duke) and Duke-NUS Medical School (Duke-NUS) are pleased to announce a call for proposals for collaborative research pilot projects between faculty based in Durham with those based in Singapore. The ultimate goal of this program is the development of international research teams that will advance basic, translational, and clinical research. This Request for Application (RFA) will support applications undertaking basic, translational, and clinical research on ***“Effects of Climate Change on Human Health”***.

Global warming and climate change are now recognized as key threats to human health in the 21<sup>st</sup> century, with increasing temperatures, urbanization, and environmental pollution affecting both industrialized nations (Singapore, USA) and LMIC (low- and middle-income) countries. Climate change has the potential to impact many acute and chronic conditions, including new outbreaks, pathologies of the respiratory, cardiovascular, kidney, and gastrointestinal tract, and mental and immunological well-being. The field requires new platforms and multi-disciplinary efforts to study and quantify the full effects of climate change on human biology, across molecular ((epi)genome, transcriptome, metabolome), cellular (model systems), and physiological scales (heat stress, nutrition). For healthcare and hospital systems, climate change is also imposing pressures on staff wellness, and challenges to reduce the carbon footprint of medical services perhaps through new technologies and Artificial Intelligence (AI). It is hoped that through this joint grant call, Duke and Duke-NUS teams will be catalyzed to think out of the box for novel team-based approaches to address these key global health challenges.

For each project, **USD\$100,000** will be available to the Duke PI and **SGD\$100,000** to the Duke-NUS PI. Awards are for 2 years, though a single no-cost extension of an additional 6 months may be considered upon request. Applications will be evaluated according to the scientific merit of the proposal, and the strength and clarity of the collaboration between the Duke and Duke-NUS Co-PIs.

For the purpose of this award:

- Duke-NUS faculty are defined as based primarily in Singapore and holding Duke-NUS Tenure/Research / Educator / Practice Track appointments as Assistant Professor or above, including faculty in SingHealth who hold a Clinical or Adjunct appointment with Duke-NUS.
- Duke faculty are defined as those who hold regular rank Duke appointment at the Assistant Professor level or above.

**Descriptions of currently active research programs at Duke-NUS and within SingHealth are available at:**

<https://www.duke-nus.edu.sg/research>

<https://www.singhealthdukenus.com.sg/>

**Information on research at Duke is available at:**

<https://medschool.duke.edu/research>

<https://research.duke.edu/>

## Full Application

Full proposals will be due **15 July 2024**. Applicants are requested to upload the information outlined below via an online survey. Please read the survey instructions thoroughly before starting the submission survey. A list of survey questions will be included with the invitation, noting questions with forced responses and listing where uploads are required.

1. Title page listing participating faculty and their respective roles in the project
2. Information regarding any previous Pilot Project Awards granted to either PI. Abstract of 250 words or less describing the project
3. Project summary of 2000 words or less (not including citations), addressing the specific areas of focus
4. Citations
5. Figures (up to 3)
6. Biographical Sketches (no more than 4 pages each) for participating faculty, using either the NIH Biographical Sketch Form or a similar form from a Singapore public funding agency
7. Duke PIs: Regulatory approval documents and/or status updates (IRB, IACUC, etc.) {Note: Duke IRB must include Duke-NUS Co PI information in order to provide shared access to certain data-sharing platforms.}
8. Budget (see below for detailed instructions)

### Duke budget (USD \$100,000) to include:

- Personnel (Note: Graduate student Stipends (not tuition) and PI payroll are allowed)
- Equipment directly related to the research project
- Travel: to include travel support budget for one mandatory trip for either the (i) Duke PI or (ii) research personnel from the Duke PI's lab to travel to the Duke-NUS PI's lab.
- Publication fees
- Other: Supplies, IRB fees, Core Services, etc.
- Indirect Cost (8% of Direct Cost, which totals \$7,407.41)

### Duke-NUS budget\* (SGD \$100,000) to include:

- EOM (Expenditure on Manpower)
  - Note: Funds cannot be used for support of the PI's salary.
- OOE (Other Operating Expenses) – to include travel support budget for one mandatory trip for either the (i) Duke-NUS PI or (ii) research personnel from the Duke-NUS PI's lab to travel to the Duke PI's lab.
  - Note: Up to SGD10,000 can be budgeted for travel support for the Duke-NUS PI or his / her research personnel who are working on the project.
- Equipment
  - Note: Any single equipment purchase more than SGD5,000 (inclusive of GST) will require separate approval at the time of award.

\*Budget and Expenditures for Duke-NUS components should be in accordance with the Duke-NUS / SingHealth institution's prevailing financial and procurement guidelines, depending on whether the Duke-NUS PI's host institution is Duke-NUS or a SingHealth institution.

### Selection Process for New Awards:

Proposals will be screened for administrative completeness and then peer-reviewed by Duke and Duke-NUS faculty without existing conflicts of interest. We anticipate announcing awards by **1 October 2024**, with an expected start date of **1 December 2024**.

Questions should be sent to [dukenusaffairs@dm.duke.edu](mailto:dukenusaffairs@dm.duke.edu) or to Gwendoline Goh at [gwen.goh@duke-nus.edu.sg](mailto:gwen.goh@duke-nus.edu.sg).