



Duke/Duke-NUS Research Collaboration Pilot Project

Request for Proposals for Funding in 2025

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 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 on the research theme **"Comparing USA and Singapore Populations Using Novel Technologies and Strategies."**

There are several important disease conditions that differ in incidence, clinical manifestation, prognosis and therapy response between Asian and non-Asian populations. Selected examples include various malignancies (e.g. liver, stomach, *EGFR*-mutated lung cancer), disease-associated symptoms and sub-symptoms (e.g. "lean" diabetes, diabetic end-stage kidney disease), patient outcomes despite overtly similar standards of clinical and therapeutic management (e.g. mental health). Besides differences in population genetics, Asian and non-Asian populations can also differ significantly in their exposure to infectious agents, environmental challenges (e.g. heat-stress and climate change), and dietary/nutritional intake, all of which can also modify clinical and disease trajectories. *Importantly, insights explaining these differences may highlight new therapeutic and intervention strategies in both populations*. We seek to leverage the 20-year international partnership between Duke and Duke-NUS to explore such "East-West" differences, leveraging the advanced capabilities of both campuses.

In this RFA, we are seeking applications that will undertake sophisticated analyses of clinical cohorts between Singapore and Durham, using novel technologies (e.g. genomics, proteomics, metabolomics, imaging) and analysis strategies (e.g. artificial intelligence, federated learning) to clarify the basis of these differences. Priority will be given to applications resulting in high-dimensionality, integrated and deidentified Duke/Duke-NUS data sets that can form the seeds of future grant applications and/or that could support future commercialization or industry collaborations in both countries, and ultimately accessed by the larger Duke/Duke-NUS community. <u>Applications where cross-transfer of technologies and capabilities from one country to the other are explicitly stated will be preferred.</u> Funding from this RFA should not be used to recruit and assemble new cohorts, but should focus on already existing cohorts, data sets, and biobanked samples.

For each project, **USD \$100,000** will be available to the Duke PI and S**GD \$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.

Further Information Regarding Research at Duke and Duke-NUS:

Duke-NUS Medical School https://www.duke-nus.edu.sg/research https://www.singhealthdukenus.com.sg/

Duke https://medschool.duke.edu/research https://research.duke.edu/

Duke University School of Medicine



Application Instructions

There will be two phases of the application process for this award. During Phase 1, applicant pairs will submit a Letter of Intent to be reviewed by the Duke/Duke-NUS Pilot Project Committee. Selected pairs will be invited to submit full applications during Phase 2 of the process.

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 **3 October 2025**, with an expected start date of **1 December 2025**.

Phase 1: Letter of Intent

Interested parties must complete the online application by 18 April 2025 (by 11:59 pm EST):

- 1. A one-page Letter of Intent file describing the nature of the proposed project and
- 2. Names and NIH Biographical Sketches (see below) of the PIs from Duke and Duke-NUS

Phase 2: Full Application

Full proposals will be due **11 July 2025 (by 11:59 pm EST)**. Applicants can expect to upload the following information via an online application form.

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

*Note: Duke IRB must include Duke-NUS Co-PI information to gain access to certain Duke platforms.

Budget Information

The Duke budget (USD \$100,000) should include:

Personnel	Graduate student stipends and PI payroll are allowed (but NOT student tuition)
Equipment	Must be directly related to the research project
Travel	Budget for at least one mandatory trip for either the Duke PI or research
	personnel from the Duke PI's lab to travel to the Duke-NUS PI's lab
Other	Publication fees, Supplies, IRB fees, Core Services, etc.
Indirect Costs	8% of Direct Cost, which totals \$7,407.41

The Duke-NUS budget* (SGD \$100,000) should include:

EOM	Funds cannot be used for support of the PI's salary.
(Expenditure on Manpower)	
OOE	Up to SGD \$10,000 for one mandatory trip for either the Duke-NUS PI
(Other Operating Expenses)	or research personnel from the Duke-NUS PI's lab to travel to the Duke
	Pl's lab.
Equipment	Any single equipment purchase more than SGD \$5,000 (inclusive of
	GST) will require separate approval at the time of award.

*Budget and expenditures for Duke-NUS components must adhere to the financial and procurement guidelines of Duke-NUS or SingHealth, depending on the PI's host institution.

Questions should be sent to Evan Dorner at evan.dorner@duke.edu or to Amanda Ng at Amanda.ng@duke-nus.edu.sg.