Request for Proposals
Duke Global Health Institute Pilot Research
DEADLINE: April 20, 2020

The Duke Global Health Institute (DGHI) invites interdisciplinary teams led by DGHI faculty to submit research proposals in the area of data science, machine learning, and/or artificial intelligence. "AI" is typically used to describe when computers are learning independent of human interaction- for example the ability to perform tasks in complex environments without constant guidance by a user or the ability to improve performance by learning from experience. The field of AI includes or overlaps with machine learning, data science, and digital health. Per a 2018 report from USAID,

> Examples of the use of AI in health can be found both in public health and medicine. Public health applications include populations risk management and intervention targeting or application of large datasets to surveillance and disease prediction. Patient-centered examples include improving image-based diagnosis with machine learning, chatbots to triage/refer patients or improve self-managed care, and virtual health assistants for front-line health workers. [1]

Research and collaboration around data, machine learning and innovation are important to DGHI, Duke School of Medicine, and Duke University. Through this RFP, DGHI seeks to provide pilot funds to stimulate interdisciplinary research collaborations, with the goal of enabling investigators to leverage preliminary findings and data to obtain larger awards of external funding.

- Collaborative and interdisciplinary proposals are required. Teams including new investigators, investigators new to global health, and/or investigators from low and middle-income countries, are encouraged, and investigators from 2 or more Duke Schools, Institutes, Centers or Departments are required.
- DGHI is looking for global health research ideas that will improve health equity and benefit hard-to-reach populations, low-resourced areas and partners.
- We encourage cross-cutting investments that are applicable to more than one discipline or topic (e.g. something that would aid both malaria and cervical cancer elimination). Both the research areas and cross-cutting approaches are intended to be broadly defined—e.g. Science may include anything from implementation science to genomics to sociobehavioral science.
- Topic areas which have not previously received support and proposals that support and describe a sustainable line of global health research will be prioritized.

Eligible Applicants
Duke faculty are eligible to apply for funding. Proposals that include collaborators from other institutions are encouraged. Study teams should include investigators from more than one Duke School, Institute, or Department.

Budgets
The budget may include: supplies, support for technicians, research assistants, and graduate students; research-related travel; and other justifiable and allowable research expenses. Faculty salary, travel to scientific meetings, and indirect costs are not allowable expenses. Applicants may apply for up to $25,000 for a 12-month project. Smaller proposals for shorter periods are also encouraged.

Application Requirements
Proposals must be for activities in low, lower- and upper- middle-income countries [2] (a listing of eligible countries can be found at the World Bank website: http://data.worldbank.org/about/country-and-lending-

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[1]USAID https://www.usaid.gov/digital-development/machine-learning/AI-ML-in-development/summary

[2] If you wish to propose a global health project that does not include LMIC or American South activities, please contact John Bartlett to discuss and receive approval.

groups) OR focused on health disparities in the American South. Applicants are encouraged to identify collaborating in-country/local investigators, and should describe plans for how the results generated will be applied to future external funding, as this will be an important criterion in the review.

1. Cover Page. Must include the following information:
   - Proposal title
   - Name, title, departmental affiliation, address, email address, and telephone number of all proposed investigators
   - Designation of a Principal Investigator or Co- Principal Investigators

2. Abstract (250 words maximum)

3. Research Plan (3 page maximum; single-spaced, 12 point font, 1" margins) including:
   - Statement of research objectives
   - Significance of the research (including significance to DGHI and/or Global Health and to research setting)
   - Proposed methods and plans for data analysis (specific details recommended)
   - Work already completed related to the proposed work (if relevant)
   - Description of the research team and research setting, including site collaboration plan
   - Potential for future external grant support

4. Appendix Materials (1 page maximum each; single-spaced, 12 point font, 1" margins) including:
   - Research timeline and milestones
   - Letter of support from a collaborating researcher at research site

5. Budget and Justification (1 page maximum)

6. NIH Biosketch OR Curriculum Vitae
   - Include current grant support and limit to 5 pages for each investigator

Submission Format
Please combine all required elements into a single pdf document and submit via email to kelly.deal@duke.edu with the subject line of "DGHI Pilot Grant Submission."

Schedule
Application receipt date: April 20, 2020
Project start date: May 15, 2020

Inquiries
We welcome the opportunity to answer questions from potential applicants. Please submit inquires related to this funding announcement to:

Kelly Matthews Deal, MPH
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Duke Global Health Institute
Telephone (919) 681-7159, Email: Kelly.deal@duke.edu