COLUMBIA | MAILMAN SCHOOL OF PUBLIC HEALTH

APPLICATION GUIDE

Dean's Awards for AI Research Development

Applications should be brief and structured and must be submitted through the designated Google Form. Below you will find the full list of the questions on the Application Form to use as a guide to help with the preparation and planning process.

Additional application instructions are listed on the Awards webpage:
publichealth.columbia.edu/people/our-faculty/faculty-awards/ai-initiative-awards

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Application Form 2026 Text

(Applications must be submitted via the Google Form)

The purpose of the Columbia Mailman AI Research Development Program is to identify important public health questions that could be substantially accelerated through AI. This brief application asks faculty to describe the public health problem, available or anticipated data resources, potential AI opportunities, expected contributions, and future funding pathways.

Applicants are not expected to be AI experts or to have a fully developed AI approach at the time of the application. Some applicants may already have AI collaborators or technical capacity, while others may be exploring AI approaches for the first time. The program will be jointly coordinated by TRAIL4Health and the Vice Dean's Once of Research Strategy and Innovation. Selected teams will participate in a two-year cohort-based research program with tailored support for project refinement, AI strategy development, data and infrastructure planning, preparation for future external funding, and, where appropriate, co-development of AI-enabled solutions. Support may include AI consultation, shared technical support, and up to approximately 25% FTE equivalent TRAIL AI staff support, depending on project needs and available program capacity...

* Indicates required question

Section 1. PI and Team Information

1. PI Name: *
2. Title: *
3. Department: *
4. Email: *
5. Collaborators and their Departments (if any):

Section 2. Project Overview and Public Health Opportunities

6. Project Title (maximum 20 words): *

7. Public Health Domain Area(s) (select all that apply): *

- Aging and Brain Health
- Chronic Disease
- Climate and Environmental Health
- Infectious Disease
- Mental Health
- Maternal and Child Health
- Health Equity
- Population Health
- Clinical and Translational Research
- Health Policy
- Healthcare Delivery
- Community Health
- Global Health
- Cancer Research
- Basic Science
- Other:

8. Project Description: *
   Briefly describe the proposed project including:

- The public health problem or scientific question the project aims to address;
- Why this problem is important and who may benefit;
- Why AI may create a meaningful opportunity to advance the work;
- The overall project goal and proposed approach;
- The anticipated scientific or public health impact. (1,000 words maximum)

Section 3. Data Resources and Readiness

9. Please select all data resources that are available, anticipated, or may need to be collected, linked, or acquired for this project.

   Check all that apply.

   - Electronic health records or clinical notes
   - Medical Imaging
   - Omics, genomics, biomarkers, or other molecular data
   - Wearable, mobile health, sensor, or digital data
   - Survey, cohort, or community-based data
   - Environmental, geospatial, climate, or exposure data
   - Public health surveillance, claims, or administrative data
   - Social determinants, policy, or contextual data
   - Other:

10. Data Readiness:
    Select the option that best describes the current status of the data.
    Note: The need for additional data collection, linkage, or acquisition will not be viewed as a weakness, as collecting or linking new data is often essential for impactful public health research.
    Check all that apply.

    - Data are already available

- Data available but requires substantial preparation
- Additional data collection, linkage, acquisition, access approval, or governance/security steps are needed
- Unsure

Section 4. AI Opportunity and Support Needs

Applicants are not expected to be AI experts. The purpose of this section is to help identify how AI may accelerate the proposed project and what kinds of AI expertise, technical support, or infrastructure may be useful. TRAIL4Health and the Vice Dean's Office of Research Strategy and Innovation will work with selected investigators to refine the AI strategy and identify appropriate resources.

11. Potential AI Opportunities:
    Please select all areas (A-E) that may be relevant to your project.

    A. Advanced AI Models

    Examples include large language models, foundation models, domain-specific model adaptation, small language models, multimodal AI, imaging AI, omics AI, predictive modeling or longitudinal/time-series modeling.

    Check all that apply.

    - Relevant
    - Possibly relevant, but unsure
    - Not relevant

12. If relevant, please explain briefly.

13. B. Beyond Modeling: Evaluation, Benchmark, Workflows, and Translation

    Examples include model evaluation, validation, benchmarking, bias/fairness assessment, explainability, causal or actionable AI, decision support, intervention or policy applications, and implementation or translation into practice.

    Check all that apply.

    - Relevant
    - Possibly relevant, but unsure
    - Not relevant

14. C. AI Agents and AI-Assisted Research Systems

    Examples include AI agents or research assistants for literature synthesis, knowledge discovery, cohort identification, clinical note extraction, data preparation, data harmonization, research workflow automation, AI co-scientist applications, or scientific decision support.

    Check all that apply.

    - Relevant
    - Possibly relevant, but unsure
    - Not relevant

15. D. AI-Ready Data Platforms and Infrastructure

    Examples include data harmonization, metadata and data dictionaries, AI-ready datasets, dashboards, research interfaces, secure cloud workflows, reusable pipelines, or shared research infrastructure.

    Check all that apply.

    - Relevant
    - Possibly relevant, but unsure
    - Not relevant

16. E. Other AI Approaches (Optional)

    Describe any other AI methods or technologies that may be relevant.

17. AI Opportunity Statement:

    Briefly describe how AI may help advance this project, such as what current barrier or limitation AI could help overcome. What new insight, tool, model, workflow, or capability AI could make possible? (200 words maximum)

18. Existing AI or Technical Capacity

    Please briefly describe any AI, data science, informatics, engineering, software, or technical expertise already available to the project team, including collaborators if applicable. (150 words maximum)

Section 5. Reusable Research Products and School-wide Ecosystem Contribution

The program aims to support projects that advance important scientific and public health questions while also building shared AI research capacity across the School. Projects are not required to produce reusable tools or datasets, but applicants are encouraged to consider whether the project could generate knowledge, workflows, examples, evaluation practices, data resources, or collaborative capacity that may benefit other investigators.

19. Potential Contributions: *

    Select all that may apply.
    Check all that apply.

    - o New scientific or public health knowledge
    - o New or improved data resources
    - o AI-enabled methods, models, tools or workflows
    - o AI-ready data infrastructure or secure analytic workflows
    - o Evaluation practices, benchmarks, or validation frameworks
    - o Practice examples or case studies that guide future projects
    - o Training or hands-on AI experience for students, trainees, staff, or faculty
    - o New collaborative networks or research communities
    - o Foundation for future external funding, center grant, coordination hub or larger collaborative initiative
    - o Primarily focused on a scientific discovery or application
    - o Unsure / not applicable at this stage
    - o Other:

20. Contribution Statement:

    Briefly describe how this project may benefit researchers beyond your own team or contribute to the broader Columbia Mailman AI research ecosystem.
    (150 words maximum)

Section 6. Project-Specific Budget and Justification

Selected projects will also receive support through broader program infrastructure, including core AI consultation, cohort meetings, technical workshops, program coordination, and grant development support. Applicants should therefore use the project budget for resources needed to advance the specific research question and AI-enabled work proposed by the investigative team.

Project-Specific Budget Summary:

Please provide a brief budget for up to $50,000 per year for 2 years in project-speciDc funding. Include major cost categories and approximate amounts.

(Table or short text response)

21. Budget requested (limit $50,000 per year, Year 1) *

22. Budget requested (limit $50,000 per year, Year 2) *

23. Budget Justification:
    Briefly describe how the requested funds will support the proposed scientific or public health aims, early-phase AI research development, preliminary results, or future funding readiness.

Section 7. Future Funding Opportunities

24. Funding Pathway

    Briefly describe how this early-phase project could lead to future external funding, a larger collaborative proposal, a center or coordination initiative, or another sustained research direction. If known, please identify potential funders, mechanisms, partners, or next-stage opportunities.

    (100 words maximum)