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Center for Biomedical Informatics

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Request for Applications for a Pilot Award

Purpose

The Wake Forest School of Medicine Center for Biomedical Informatics (WFBMI) is seeking proposals for innovative and translational informatics solutions to healthcare and biomedical research problems across the Atrium Health Enterprise. Novel technologies, including but not limited to testing the feasibility of novel approaches as well as unconventional solutions to translational research problems by leveraging one or more **Informatics tools and methods** are highly encouraged. Collaborative projects with participation of investigators from both legacy Atrium Health and legacy Wake Forest Baptist Health will be given priority.

The WFBMI will fund one informatics pilot study that addresses gaps in knowledge or other barriers to translational research. Some example (but not limited to) focus areas are:

- 1. Application of informatics tools and techniques for disease prevention, detection, diagnosis, prognosis or treatment.
- 2. Computable phenotype development and validation for any condition
- 3. Predictive model development and test across the institutions to address an existing condition/problem.
- 4. Data analysis pipelines for multiple data models and/or data networks (e.g., N3C, PCORNet, ACT, TriNetX, AACR GENIE etc.)
- 5. Data harmonization and/or ontology development to incorporate a data type that is currently missing in a data warehouse.
- 6. System/approach/software to address the data quality, conformance, and completeness problems across systems.
- 7. Scalable Smart on FHIR implementation for research, quality improvement, and operation purposes across EHRs.
- 8. Informatics tools and techniques development or application to improve health equity and education.

The WFBMI will fund one project. Successful pilots will receive up to **\$25,000**, to be spent within 12 months **from the project start date**.

Successful proposals are expected to:

- Create, evaluate, or implement Biomedical Informatics tools and algorithms
- Provide a rationale for local relevance and potential for generalizability
- Explain how the proposed project advances research in Biomedical Informatics
- Identify translational roadblocks that the proposed project will address and the anticipated benefits of overcoming them with the informatics
- Lay out a reasonable project plan that is feasible to complete in the project period



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Eligibility

These awards are open to all faculty with a rank of instructor or higher from Wake Forest (Health Sciences & University) and Atrium Health.

Key Dates

Date	Detail
7/12/21, 11:59 pm	Full Application Deadline
8/16/21	Selection of Awardees
10/01/21	Project Start Date
9/30/22	Project End Date

Funding

The Center for Biomedical Informatics will fund up to \$25,000 in direct costs per project. See section on Budget Guidelines for more details on allowable and non-allowable budget items. Since Center for Biomedical Informatics funds cannot be carried over from one budget period to the next, requests for nocost extensions will not be approved.

Application Procedure

Full Application Deadline: 7/12/21, 11:59 pm

Investigators are invited to apply by submitting their application through the ePilot electronic submission system, by the deadline noted above. Application instructions are summarized below.

https://redcap.wakehealth.edu/redcap/surveys/?s=XYKDMDM9L7

Format Specifications

- Arial font and no smaller than 11 point
- Margins at least 0.5 inches (sides, top and bottom)
- Single-spaced lines
- Consecutively numbered pages

Submission/Applicant Information

- Project Title
- Submitting Investigator, Co-Investigator(s), and other Key Personnel information

Abstract (300 words max)

Research Plan (6 pages max)

- Specific Aims
- *Significance* Explain how the project addresses an important problem, how it will improve scientific knowledge, technical capability and/or clinical practice.
- *Investigator(s)* Describe how each member of the team will contribute to the project. Include their expertise and experience that will be utilized on this project. Please include location information for each investigator
- *Innovation* Explain how this project uses novel concepts, approaches or methodologies, instrumentation or interventions.

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- *Approach* Describe the overall strategy for this project, including potential problems, alternative strategies and benchmarks for success.
- *Projected Timeline* (examples can be found in Appendix I)

References (no page limit)

Information Regarding Human Subjects

Address the following if the project involves human subjects.

- Provide a one-page document addressing the Protection of Human Subjects, if applicable.
- IRB Approval Status (please note: IRB approval is <u>not required</u> for full application submission, however a delay in IRB approval does not alter the project end date)

Information Regarding Live Vertebrates

• IACUC Approval Status (please note: IACUC approval is <u>not required</u> for full application submission, however a delay in IACUC approval does not alter the project end date)

Budget and Justification (budget template plus 1-page justification)

- Complete the budget template form provided along with a brief justification for the funds requested for this RFA. Please include explanation of other resources that may be leveraged to support the project
- Sub-awards to other institutions to carry out work on a project are not allowed.

NIH-style biographical sketch for all Key Personnel (new style)

Budget Guidelines

The budget period is for 12 months ending no later than 9/30/2022. Up to \$25,000 in direct costs may be requested.

Grant funds may be budgeted for:

- Research support personnel (including undergraduate and graduate students)
- Travel necessary to perform the research
- Small equipment, research supplies and core lab costs, or
- Other purposes deemed necessary for the successful execution of the proposed project

Grant funds may **not** be budgeted for:

- Faculty or other investigator effort
- Office supplies or communication costs, including printing
- Meals or travel, including to conferences, except as required to collect data
- Professional education or training
- Computers or audiovisual equipment, unless fully justified as a need for the research
- Manuscript preparation and submission, or
- Indirect costs

Awarded funds must be used to conduct the work proposed. All direct charges to this award must adhere to federal regulations and requirements regarding the use of Center for Biomedical Informatics funds. The Center reserves the right to revoke funding in the event it is determined that funds were not spent in

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accordance with the approved protocol. The general criteria for determining allowable direct costs on federally sponsored projects is set forth in 2 CFR Part 200: Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (The Uniform Guidance).

Review Criteria and Process

Center for Biomedical Informatics proposals are competitive and peer reviewed. Proposals will be evaluated by Center Leadership and based on NIH review criteria and scoring. Final award approval will be at the recommendation of Center Leadership.

Funding decisions will be made based on the reviews of an evaluation of the projects' connection with the goals of the Center for Biomedical Informatics. Any IACUC and/or IRB protocols must be approved prior to funding of the approved pilot.

Reviewers will score applications from 1 to 10 based on:

- 1. Significance of the problem to be addressed
- 2. Innovation in the proposed solutions
- 3. Strength and breadth of the investigative team
- 4. Methodological rigor and feasibility with clear milestones
- 5. Likelihood the innovation will be broadly applicable and have impact on translational research
- 6. A reporting plan regardless of whether the study yields positive or negative results
- 7. Collaboration of investigators from both legacy Atrium and WFBH,
- 8. Other elements to be considered in the review include: the likelihood that the investment will lead to external funding or a licensable innovation, early-career faculty involvement, race/gender inclusiveness of the research team and inclusion of women, minorities, older adults and children as potential participants.

Program Expectations

If any significant issues arise, the study team will be required to work with the Center for Biomedical Informatics to define an intervention strategy for the study to be successfully completed (or in rare cases, terminated).

Specific Deliverables Include:

• Disclosure of implementation/dissemination results and efforts to seek extramural funding beyond the pilot grant and subsequent notification of any funds obtained and/or related publications or significant collaborations from the project for a minimum of 4 years.

Other Guidelines

- Prior to receiving funds, research involving human subjects must have appropriate approvals from the IRB. Either an IRB approval letter or an IRB response to a "Determination Whether Research or Similar Activities Require IRB Approval" must be submitted to the Center for Biomedical Informatics prior to funds being released. Human subjects must be reviewed in accordance with the institution's general assurances and HIPAA. All key personnel must have certification of training in the protection of human subjects prior to the start of the grant period.
- Prior to receiving funds, research involving live vertebrates must have appropriate approvals from IACUC. Either an IACUC approval letter or documentation on why activity does not require IACUC approval must be submitted to the Center for Biomedical Informatics prior to funds being released.

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- 3. Center for Biomedical Informatics staff will work closely with funded teams throughout the grant period to monitor progress and, when necessary, provide assistance. A final progress report will be required. We expect PIs to report over the lifetime of the work the outcomes achieved due to the pilot award, e.g., subsequent external funding, publications, presentations and patents.
- 4. All publications that are the direct result of this funding must reference: "Research reported in this publication was supported by the Center for Biomedical Informatics, Wake Forest School of Medicine." Publications must also be registered in PubMed Central.
- 5. Any awardee who leaves his or her position should contact the Center for Biomedical Informatics to discuss plans for the project.
- 6. All awardees need to be members of the WFBMI.

Grant Administration

The Principal Investigator is responsible for the administration of grant funds. Projects will be for a 12month period.

Contacts

Questions about your proposed research project should be directed to WFBMI@wakehealth.edu

Questions about the ePilot electronic submission system should be directed to Laya Mohan (<u>lmohan@wakehealth.edu</u>)