The Dartmouth SYNERGY Translational Pilot Program seeks to fund innovative, interdisciplinary research proposals that have clear potential for translation into patient-oriented care and for improving population health. The goal of the SYNERGY Pilot Program is to facilitate collaborative translational research studies within all our institutions and affiliated health centers. By providing support for translational pilot studies, SYNERGY aims to accelerate the process of translational research across the entire (T1 to T4) translational research spectrum.

Grants are available for projects that are at an early stage and need support to create pilot data and/or to develop research concepts that will advance translational research in four focus areas (see below). Successful proposals must have a high chance of leading to extramurally funded research and/or to discoveries with the potential for commercialization. The total number of awards granted under this RFA will depend on the quality of applications, independent of focus area.

GUIDELINES

Eligibility

- Investigators at Dartmouth College, Geisel School of Medicine, Thayer School of Engineering, Tuck School of Business, and Dartmouth-Hitchcock and its affiliated sites, including the White River Junction, Manchester and Togus VAs, who meet the requirements below are eligible to apply.
- To foster interdisciplinary and inter-institutional research, the application must list two co-PIs, each from a different discipline, department, or school.
- The contact PI must have a faculty appointment at the rank of instructor, assistant professor, associate professor, or professor at Dartmouth.
- Should the contact PI be a junior faculty member at the rank of instructor or assistant professor, the applicant must identify his/her research mentor(s) in the Letter of Intent (LOI).
- Applicants must obtain department chair and section chief sign-off indicating departmental support for allowing the applicant sufficient time to successfully complete the pilot project.
- Investigators are limited to a single application as the contact PI.

Pilot Project Focus Areas: To fulfill the translational expectation of SYNERGY, proposals are sought that pursue either (1) application of scientific discoveries to clinical practice or (2) underlying mechanisms behind observations from patient care or public health. If the research is focused on testing a drug or medical device, the SYNERGY Pilot award is restricted to only early-phase clinical trials. See http://grants.nih.gov/grants/policy/hs/glossary.htm for a full definition of patient-oriented research and clinical trials. Focus areas are as follows:

Patient-oriented Translational Research: Examples of projects in this category include the process of making discoveries in the research laboratory or in preclinical studies that will have an impact on human health and may lead to development of studies in humans; and the process of applying
discoveries generated during research in the laboratory, and in preclinical studies, to the development of trials and studies in humans.

*Methodology and Technology Innovations for Translational Research Awards (MITRA):* Examples of pilot projects that would be viewed as responsive under this category include, but are not limited to: innovative use of imaging and/or biomarkers to assess treatment prognosis; genomics research methodology; design or implementation of assays in medium-throughput screening for drug discovery; innovative experimental design and development of statistical methodologies for clinical and translational research applications, including innovative clinical trial design; and technologies for clinical decision support.

*Population-based Translational Research:* Examples include, but are not limited to: analysis of administrative claims data such as Medicare that elucidate associations between drug exposures and outcomes in defined populations (e.g., pharmaco-epidemiologic studies); evaluation of hypotheses generated in the laboratory through claims analyses; comparative effectiveness studies involving claims-based analyses that compare outcomes of alternative approaches to health care for defined populations (e.g., surgical vs. non-operative care for specific conditions, treatment with innovative technologies vs. established technologies); comparative effectiveness studies of alternative approaches to health care delivery, which may include both health and economic outcomes of care and may involve analyses of patient-reported measures and/or registry-enriched claims data; and claims-based analyses that elucidate health and health care disparities.

*Reverse-translational Research:* A T1 or pilot T2 level research project motivated by observations from large population databases. The majority of the proposed work should involve testing the hypothesis via new primary data collection from human subjects. Examples include, but are not limited to: new use of an approved drug based on a pharmacoepidemiologic association; a behavioral intervention study to test a previously observed association in a controlled setting; demonstrating certain biomarkers or characteristics that confer a beneficial/toxic response to an intervention; and a nested case-control study to identify specific molecular changes explaining an observed exposure-disease association. Preliminary data on the population observations used to generate the specific hypothesis is a strength. Use of locally held datasets is encouraged (e.g., Medicare claims, regional disease/screening registries, or large population-based studies).

**Budget:** Applicants should prepare a budget that is appropriate for the resources necessary to carry out the proposed research beginning no later than July 2016. Most successful pilot project applications are completed within 12 months with budgets of $25,000 to $50,000. Award amounts will vary depending on the scope of the proposed work, its scientific merit, feasibility, and relevance to the SYNERGY mission.

**Human Subjects:** Investigators submitting proposals involving human subjects must obtain approval from the Committee for the Protection of Human Subjects at Dartmouth College. Release of funds will be contingent upon CPHS approval, but it is not necessary to obtain approval prior to submitting a proposal. If investigators are relying on an existing CPHS approval, they must delineate what is novel about the proposed work and give a timeline for amending the existing CPHS protocol.

**Animal Use:** Projects involving animals must obtain approval from the Institutional Animal Care and Use Committee (IACUC). Release of funds will be contingent upon approval, but it is not necessary to obtain approval prior to submitting a proposal.

**Study Design:** All applicants are encouraged to use SYNERGY-supported research consultation cores and services. To arrange for consultations, see: [https://synergy.dartmouth.edu/resources/index/#overview](https://synergy.dartmouth.edu/resources/index/#overview). Successful applicants may also use the SYNERGY Clinical Research Unit (CRU) at DHMC for study visit

SYNERGY Pilot RFA 2016
support. Requests for CRU services may be made through https://synergy.dartmouth.edu/resources/index/#clinical-research-unit. Please contact synergy.pilots@dartmouth.edu with any additional questions.

Submission Procedures:

1. **Letter of Intent (LOI):** A fully completed LOI, including Biosketch(es) (NIH format) for the PIs and, if applicable, mentor, along with departmental sign-offs, must be combined into one PDF and submitted via email to synergy.pilots@dartmouth.edu no later than **5pm November 2, 2015.** Candidates must follow the SYNERGY Pilot Instructions and Template for Letter of Intent available at https://synergy.dartmouth.edu/funding/index/#translational-pilot-grants.

2. **Review of LOI:** LOI receipt will be acknowledged within one business day by SYNERGY administrative staff. Following LOI review, applicants will be notified the first week of December 2015 regarding whether they are selected to submit a full proposal.

3. **Invited Pilot Project Full Proposals:** Applicants must use the SYNERGY Pilot Project Instructions and Template for Full Proposal, which will be sent to the applicants who are invited after LOI Review. The final submission deadline for invited Pilot Project applicants will be **5:00 PM, January 11, 2016.**

4. **Review of Full Proposals:** The SYNERGY Pilot Application Review Committee (PARC) will review Full Proposals. Review criteria include innovation, interdisciplinary engagement, approach, significance, community impact, translational character, investigator qualifications, and—for junior faculty at the rank of instructor or assistant professor—strength of mentoring environment. Funding decisions will be announced in March 2016 with awards starting no later than July 2016. All invited applicants will receive a summary of reviewer comments and may also request to meet with a review committee representative for further guidance.

**Post-Award Conditions.** To activate a SYNERGY Pilot Project Award, Co-Principal Investigators and their Mentors (if applicable), as well as the Investigators’ Section Chiefs and Department Chairs must sign a SYNERGY Award Compact, indicating their agreement to all Award requirements and expectations, including the following:

- Project award management – SYNERGY Pilot Awardees must work with administrators in their home departments as well as SYNERGY administrators to ensure successful management of SYNERGY Pilot Project funds.
- Progress reports, presentations, publications, and grant applications – SYNERGY Pilot Awardees are required to submit written progress reports every six months during the award period detailing progress towards research project aims. Awardees are expected to present their research at regular intervals, submit papers to peer-reviewed journal(s) for publication, and seek follow-on grants – all of these being key indicators of research success. PIs must list this activity in their progress reports.
- Pilot Awardees are expected to participate in SYNERGY functions convened for Pilot Awardees and to provide additional written updates beyond the Pilot Award period when requested.
- Pilot Awardees are expected to serve on future SYNERGY Pilot Application Review panels and to provide feedback on the SYNERGY Pilot Program.

If you have any questions on the SYNERGY Pilot Program or need assistance with the application, please contact synergy.pilots@dartmouth.edu at any time.

SYNERGY Pilot RFA 2016