



SYNERGY Scholars Mentored Career Development Program

LETTER OF INTENT DUE (Required): April 1, 2017

FULL APPLICATION DUE (Invited): May 15, 2017

AWARD START DATE: October 1, 2017

I. Background

Dartmouth SYNERGY Scholars is an on-going Mentored Career Development Program, modeled on the NIH KL2 Scholars Program. The program combines didactic training, mentoring, exposure to multidisciplinary research, and ongoing evaluation to prepare junior investigators for careers in Clinical and Translational Research (CTR).

The SYNERGY Scholars Program Committee anticipates a maximum of one (1) slot available, beginning October 1, 2017. A second year of funding for the awardee is anticipated (through September 2019), subject to the availability of funds.

The SYNERGY Scholars Program aims to develop future researchers and facilitate collaborative translational research studies. The Program Committee anticipates that providing funding for such studies will accelerate the development of clinical and translational research scientists, thereby having a positive impact upon our overall clinical and translational research enterprise.

- The SYNERGY Scholars Program seeks to promote multidisciplinary and interdisciplinary research initiatives. Consequently, applications that reflect a strong multidisciplinary or interdisciplinary focus will be viewed very favorably.
- The proposed research must meet the NIH definition of patient-oriented research—i.e., the focus of the research can be translational, mechanistic, therapeutic, clinical trials-oriented, physiological, behavioral, or epidemiologic in nature.
- Proposed research must be based in United States – research involving a foreign component is not allowed under this KL2 award.
- If the research is focused on testing a drug or medical device, the SYNERGY Scholars award is restricted to only early phase pilot studies. See <http://grants.nih.gov/grants/policy/hs/glossary.htm> for a full definition of patient-oriented research and clinical trials.

II. Eligibility Criteria (please contact us with eligibility questions prior to LOI submission)

- Candidates for the SYNERGY Scholars Program must have a research (PhD) or health-professional doctoral (MD, DO, DNP) degree or its equivalent. Applications from women and under-represented minorities are encouraged.
- The candidate must be a U.S. citizen or permanent resident.
- The candidate must hold a regular faculty appointment at Dartmouth College, including the Geisel School of Medicine, at the level of Assistant Professor, or Associate Professor. These faculty members may be employees of Dartmouth College, Dartmouth-Hitchcock, or the White River Junction Veterans Affairs Medical Center (VAMC).
- Applicants for the SYNERGY Scholar appointments may not simultaneously *have pending* an application for any other PHS mentored career development award (e.g., K07, K08, K22, K23) that duplicates any of the

provisions of the KL2 program. Award decisions will be made on a timeline that avoids conflicts with June NIH submissions. Candidates and appointed Synergy Scholars are encouraged to apply for individual mentored career development awards, including NIH K-awards (e.g., K07, K08, K22, K23) or foundation training awards (e.g. ACS). If successful, the SYNERGY Scholar's appointment would be supplanted by the funding received from the individual's new external career award.

- Former or current PD/PIs on an NIH research project (R01), program project (P01), center grants, FIRST Awards (R29), sub-projects of program project (P01) or center grants, other career development awards (K-awards), or the equivalent are *not* eligible. Former principal investigators of an NIH Small Grant (R03), Exploratory/ Developmental Grant (R21), Dissertation Awards (R36), or SBIR/STTR (R34, R41, R42, R43, or R44) remain eligible.

Candidates must be able to commit a minimum of 75% of full-time professional effort for career development and research activities associated with the SYNERGY Scholars Program for a duration of up to two years. The SYNERGY Scholars Program will provide funds annually to cover 75% of the individual's salary, up to the NIH cap of \$183,300, plus fringe benefits. The level of funding is subject to the number of meritorious applications and the availability of funds. Funding is contingent upon demonstrated progress toward the Scholar's individual career goals and continued support from mentors and the department chair. Each Candidate's Department Chair must provide a supporting letter guaranteeing that the individual will have no more than 25% time committed to other non-research (e.g., clinical/teaching) duties during the period of the award.

In addition to the Candidate's salary support, the award will provide up to \$25,000 per year to cover travel, supplies, research assistant salary, and tuition expenses.

III. Team Mentorship

Each applicant must identify a primary and a secondary co-mentor from at least two different disciplines (or distinctly different areas of methodological expertise) to supervise his/her research progress during the period of the award. The ideal candidate will propose science that is multidisciplinary or interdisciplinary; therefore, the co-mentors should be chosen to reflect the disciplines needed to gain independence in the proposed research area. For example, a lab-based researcher and an endocrinologist might be chosen to supervise a project on early diabetes drug development. Alternatively, a clinical trials researcher and an expert on informatics might be chosen to supervise a project on population health intervention. The Primary Mentor should be chosen from the large pool of senior investigators at Dartmouth who have established reputations in clinical and translational research and mentorship. The Secondary Mentor can be from Dartmouth or another institution. Additional consultants may also be named, as appropriate. Salary support for mentors is not allowed.

The Program Committee will review the credentials of the proposed Mentors for scientific productivity, grant funding record, and mentoring history. If the committee decides that a Mentor is unsuitable, the applicant may be required to meet with SYNERGY program leaders to discuss how to proceed. In some instances, the Program Committee may recommend that a more senior mentor join the mentoring team or propose additional Mentors. Applicants may send specific questions on Mentor selections via email to attention of the SYNERGY Scholars Program Committee at synergy.scholars@dartmouth.edu.

IV. Key Submission Dates

Please note that the application process is in two stages. Applicants will be invited to submit a full application based on a review of the LOI. Review considerations will include the description of aims and methods, alignment with the theme of translational research, and quality of the applicant (i.e., prior training and publications).

- ▶ Stage 1. Submit the required Letter of Intent (LOI) following the "Attachment A" template, along with NIH Biosketches for the Candidate and Mentors, by *April 1, 2017*. The LOI must include the signatures of co-Mentors.
 - By April 7th, selected applicants will be notified that they are invited to submit a full application.
- ▶ Stage 2. Invited applicants will submit the Full Application, following "Attachment B", by *May 15th*.
 - By May 19th, applicants will be notified of the award decision.
- ▶ All materials must be sent via email synergy.scholars@dartmouth.edu with "Synergy Scholars Program" as the subject. Attach the materials as a single PDF file named: <SYNERGY_PIname.pdf>. Submitted materials will be

acknowledged within 24 hours of receipt.

V. Full Application Checklist

The SYNERGY Scholars Program places special emphasis on multidisciplinary clinical and translational research, which must be reflected in the research, training, and team mentorship plans. See templates that follow for details. The application must include:

1. Face Page: The name, title, and department of the Candidate, Primary Mentor and Secondary Mentor, project title, and brief abstract.
2. Biosketches (“new” NIH format): Candidate, Primary Mentor, and Secondary Mentor.
3. Candidate Statement: (2 pages) describing personal career goals and training plan including specific training goals, plans (e.g. frequency of mentoring sessions, tutorials, seminars, formal coursework, attendance at conferences, etc.) and timelines for submitting planned manuscripts and grant proposals.
4. Mentorship Plan: Letter of support describing plan for mentoring from the Primary Mentor and an additional letter from the Secondary Mentor.
5. Research Proposal: (6 pages, standard NIH format) a well-developed scientific initiative in clinical or translational investigation, developed in consultation with the proposed mentoring team.
6. Literature Cited.
7. Budget Justification.
8. Human Subjects, vertebrate animals, embryonic stem cells.
9. Other grant applications.
10. Letter of Support from the Department Chair.
11. Appendices are not permitted.

VI. Post-Award Conditions

To activate a SYNERGY Scholar Award, invited Scholars and their Mentors must sign a SYNERGY Scholar Compact, indicating their agreement to all Award requirements and expectations, including:

- ▶ Annual report - SYNERGY Scholars are required to submit a written report annually detailing participation in career development activities, progress towards both career-related objectives and research project aims, as well as the status of publications and grant submissions. Each Scholar and his/her Mentors must attend an annual meeting to discuss progress with the SYNERGY Scholars Committee.
- ▶ Scholars must provide, upon request, written updates on the Scholar's academic career accomplishments and feedback on the program and mentorship, both during the program and throughout the Scholar's career.
- ▶ Scholars must work with administrators in their home departments as well as SYNERGY administrators to ensure successful management of SYNERGY Scholar funds (\$25,000 per year) for the costs of tuition, research expenses, travel, and supplies.
- ▶ All SYNERGY Scholars will be expected to apply for independent research funding from NIH or other extramural agency by the end of the first year of support. Application to NIH is strongly encouraged.

For more information, contact

Angeline Andrew, PhD. Educational Programs Director, Dartmouth SYNERGY

Email: synergy.scholars@dartmouth.edu

Phone: 603-650-1877

Attachment A

2017 SYNERGY Scholars Mentored Career Development Program
Letter of Intent Template

1. Candidate and Mentoring Team

Candidate:		
<i>Name</i>	<i>Position Title</i>	<i>Department / section</i>
<i>Institution (Dartmouth affiliated)</i>		
<i>phone</i>	<i>email</i>	
Primary mentor:		
<i>Name</i>	<i>Position Title</i>	<i>Department / section</i>
<i>Institution (Dartmouth affiliated)</i>		
<i>phone</i>	<i>email</i>	
<i>Primary Mentor signature:</i>		
Secondary mentor:		
<i>Name</i>	<i>Position Title</i>	<i>Department / section</i>
<i>Institution</i>		
<i>phone</i>	<i>email</i>	
<i>Secondary Mentor signature:</i>		
Additional consultants (if any):		
Department Chair:		
Candidates must be able to commit a minimum of 75% of full-time professional effort for career development and research activities associated with the SYNERGY Scholars Program for the duration of the award.		
<i>Department Chair signature:</i>		

2. Title of proposed research project:

3. One page research project description (may be modified for final full application)

This should include:

- 1) Project significance/background
- 2) Specific Aims;
- 3) Brief summary of methods;
- and 4) Potential Impact

Remember to attach NIH Biosketches* for the Candidate and co-Mentors. *NIH Biosketch instructions and sample: <https://grants.nih.gov/grants/forms/biosketch.htm>

Attachment B

2017 SYNERGY Scholars Mentored Career Development Program
Full Application Template

(Note: Full Applications requested by invitation only.)

1. Face page (1 page):

Candidate:		
<i>Name</i>	<i>Position Title</i>	<i>Department / section</i>
<i>Institution (Dartmouth affiliated)</i>		
<i>phone</i>	<i>email</i>	
Primary mentor:		
<i>Name</i>	<i>Position Title</i>	<i>Department / section</i>
<i>Institution (Dartmouth affiliated)</i>		
<i>phone</i>	<i>email</i>	
<i>Primary Mentor signature:</i>		
Secondary mentor:		
<i>Name</i>	<i>Position Title</i>	<i>Department / section</i>
<i>Institution</i>		
<i>phone</i>	<i>email</i>	
<i>Secondary Mentor signature:</i>		
Additional consultants (if any):		

Title of research project:

Abstract: (Summarize the goals of both the Candidate’s training plan and the research project.)

Attachment B: Full Application Template (cont.)

2. **Biosketches** (new NIH format, maximum of 4 pages each):

- ▶ Candidate
- ▶ Primary Mentor
- ▶ Secondary Mentor

3. **Candidate** (2 pages total):

A. Candidate’s Background

B. Career Goals and Objectives

This should include specific research training aims and objectives for the candidate that will result in achieving the necessary skills to complete the proposed research study and to advance the candidate’s research career in the selected topic area and methods. Each aim should be associated with specific educational and mentoring activities designed to achieve the aim.

C. Career Development / Training Activities During Award Period

- i. Mentoring activities. A specific schedule for meetings between the scholar and mentors, detailing each mentor’s one-on-one meetings with the scholar, and plans for joint meetings involving all mentors with the scholar. The strongest applications will specify frequent (e.g., weekly) team mentoring meetings in which all mentors meet simultaneously with the scholar. Meetings with other advisors/consultants are expected to take place less frequently.
- ii. Didactic courses or seminars related to the candidate’s research interests and career development. These can be courses offered at Dartmouth or elsewhere and must be relevant to the applicant’s research. Applicants must describe how the additional training will enhance their specific research program. Awardees are required to participate in at least one additional career development opportunity per year (e.g., leadership seminar, grant-writing workshop).
- iii. Participation in the SYNERGY Advanced Certificate in Clinical and Translational Research program. Meets for didactic and tutorial sessions weekly or bi-weekly September – March.
- iv. Completion of Responsible Conduct of Research (RCR) if not previously completed.
- v. Good Clinical Practice (GCP) training (<https://www.citiprogram.org/>), if not completed previously. GCP is the international ethical and scientific quality standard for the design, conduct, performance, monitoring, auditing, recording, analysis, and reporting of clinical trials that involve human subjects.

Example Table. Detailed breakdown of proposed educational and mentoring activities.				
	Activity	Topics	Location	Schedule
Training Aim 1	MENTORING ACTIVITIES			
	COURSES, SEMINARS, WORKSHOPS			
	CONFERENCES, SCIENTIFIC MEETINGS			
Training Aim 2	MENTORING ACTIVITIES			
	COURSES, SEMINARS, WORKSHOPS			
	CONFERENCES, SCIENTIFIC MEETINGS			

4. **Mentorship Plan:** A Letter of Support from each of the mentors indicating commitment to the Candidate, as well as his/her experience serving as a mentor. The Primary Mentor should submit a one-page discussion of the mentoring plan, including proposed meeting schedule, access to research material, candidate support, and expectations; the Secondary Mentor should also submit a brief letter of commitment (less than one page). In addition, the Mentors must be available to report on the Scholar’s progress to the full Program Committee. Finally, written feedback and evaluations are required periodically of both Scholars and Mentors.

Attachment B: Full Application Template (cont.)

5. **Research Proposal** (6 pages total): Should represent a well-developed scientific initiative in clinical or translational investigation, developed in consultation with the proposed mentoring team.
 - A. Research Specific Aims
 - B. Significance
 - C. Innovation
 - D. Approach (recommended sections may include: Preliminary Studies (relevant pilot data, if any), Population or Patients, Statistical analysis and Power calculations, Pitfalls and Alternative Approaches, Milestones, and Timelines)

6. **Literature Cited**

7. **Budget Justification:** The applicant must ensure that SYNERGY Scholar funds (\$25,000 per year) for the costs of tuition, research expenses, travel, and supplies will cover planned expenses or include a letter of support that provides evidence of support for additional funding. Salary for mentors is not allowed. Applicants should describe how funds will support their proposed research initiative. Cost estimates should be provided categorically, for example:
 - ▶ Supplies e.g., blood collection supplies (\$x per patient, total cost: \$x in Year 1)
 - ▶ Services e.g., DNA isolation will be performed by xxx (\$x per sample, total cost: \$x)
 - ▶ Tuition or Conference fees
 - ▶ Travel expenses

8. **Other issues** (if applicable to the proposed project):
 - ▶ Protections for Human Subjects: http://grants.nih.gov/grants/peer/guidelines_general/Human_Subjects_Protection_and_Inclusion.pdf
 - ▶ Vertebrate Animals: <http://grants.nih.gov/grants/olaw/VASchecklist.pdf>

9. **Other grant applications:** list the Candidate’s other currently pending research grants. If a previous K-award application has been submitted to NIH, include the Summary Statement from the most recent review.

Example Table. Other Grant Applications.			
Grant Mechanism	Project Title	Submission date(s)	Current Status
Pending Research Grants e.g., R01, R21, ACS-IRG			
Prior Career Development Grants not funded e.g., K-awards: K01, K07, K23, etc.			

10. **Letter of Support from Department Chair:** Should address the following:
 - ▶ The Candidate's prospects for development into an independently funded clinical and translational scientist.
 - ▶ The Department's assurance that at least 75% of the Candidate's time will be protected for research career development and devoted to her/his role as a SYNERGY Scholar.
 - ▶ The dollar amount requested for the Candidate's salary and percent effort to be devoted (must be less than or equal to 75% of salary, up to NIH cap). Specify how any difference in salary will be compensated.
 - ▶ Other necessary support, such as space allocated to the Candidate, or the availability of administrative assistant support.