



The THRIVE COVID-19 Fellowship: Creating a Forum for Collaborative Team Science and Innovation Development

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PUBLISHED ABSTRACT

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Purpose: Launched in October 2020, the Mount Sinai Targeted Healthcare Innovation Fellowship (THRIVE) is a 9-month program for participants from diverse professional backgrounds to form teams to develop a HealthTech innovation related to COVID-19. This innovative program is designed to provide an experiential team science platform for participants to take an idea from concept to commercial viable innovation, whilst developing the skills to work collaboratively in multidisciplinary teams. THRIVE participants are comprised of medical students, graduate students, and trainees (including residents and fellows) from across the Icahn School of Medicine at Mount Sinai.

Methods: Following a competitive application process, 14 THRIVE fellows self-select into 3 transdisciplinary teams to work collaboratively across Slack and other online platforms. Participants are provided with access to a range of mentors and experts in the field, and encouraged to identify and reach out to these individuals to create their own networks of professional support. Participants are allocated a \$2500 per team and prepared budgets to allocate funds towards hardware, software and input from external consultants (see *Figure 1* for program timeline). Success of the program will be evaluated by:

- assessing pre- and post- collaborative research orientation among THRIVE fellows using the Research Orientation Scale [1]
- using social network analysis (SNA) to investigate the social networks of THRIVE fellows to capture patterns of communication and collaboration related to innovation development
- exploring participant experiences of group formation, teamwork and collaboration related to innovation development using one-to-one semi-structured interview
- determining team success in innovation development, measured by number of publications, funding awarded, provisional patents and viable products.

Results: Paired t-tests will determine whether collaborative orientation of THRIVE fellows changes pre- vs. post- program participation, indicating changes in attitude toward multidisciplinary team work. SNA will be used to describe structural patterns

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KEYWORDS:

Medtech; multidisciplinary;
team science; COVID-19

TO CITE THIS ARTICLE:

Fattah L, Gabrilove J, Oemke H, Borrello J, Baker T, Costa KD, Putrino D, Costa A. The THRIVE COVID-19 Fellowship: Creating a Forum for Collaborative Team Science and Innovation Development. *ISMMS Journal of Science and Medicine*. 2021; 1(2): 11, pp. 1–2. DOI: <https://doi.org/10.29024/ijsm.59>

of communication with mentors and experts in the field that occur at individual and group levels. Network-level indices will provide insight into patterns of communication that exist in innovation development: degree centrality (number of connections per individual), betweenness centrality (number of bridges to others in a network), closeness centrality (closeness to others in a network). We will also test for associations between network characteristics and team success.

Conclusion: Understanding patterns of formal and informal relationships, interactions, and perceptions of the collaborative process among individuals in THRIVE teams will demonstrate whether such a program can provide an effective forum for team science and innovation development related to COVID-19.

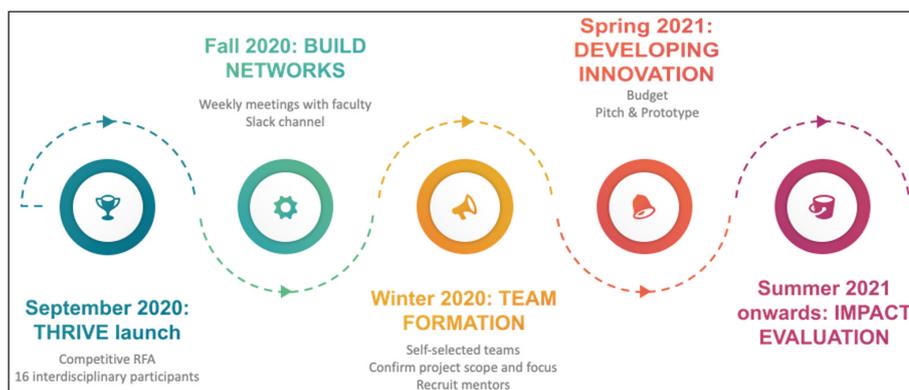


Figure 1 THRIVE program timeline.

FUNDING INFORMATION

Supported by grant UL1TR001433 from the National Center for Advancing Translational Sciences, National Institutes of Health.

COMPETING INTERESTS

The authors have no competing interests to declare.

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REFERENCE

1. **Hall KL, Stokols D, Moser RP, et al.** The collaboration readiness of transdisciplinary research teams and centers: findings from the National Cancer Institute's TREC year-one evaluation study. *Am J Prev Med.* 2008; 35(2): S161–S172. DOI: <https://doi.org/10.1016/j.amepre.2008.03.035>

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Submitted: 16 April 2021

Accepted: 16 April 2021

Published: 12 May 2021

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