#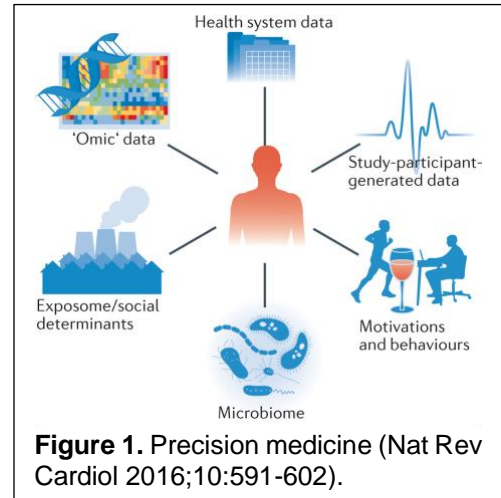 MU School of Medicine Research Funding Opportunity: the Translational Research Impacting Useful and Meaningful Precision Health (TRIUMPH) Initiative
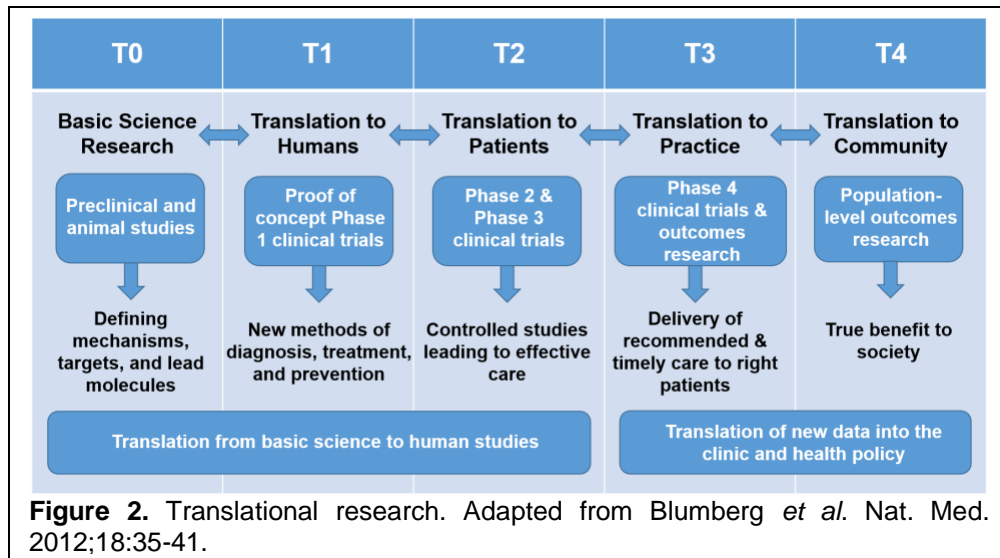
Program overview

Precision medicine (also referred to as precision health) is a rapidly evolving field that assesses variation in people's genes, environments, and lifestyles and uses this information to create individualized diagnostic, treatment, and health maintenance plans (**Figure 1**). Translational research is a broad field of scientific investigation that fosters the multidirectional integration of basic research, patient-oriented research, and population-based research, with the overarching goal of improving public health (**Figure 2**). Precision medicine and translational research are high priorities for the School of Medicine (SOM), the University of Missouri-Columbia (MU), and the University of Missouri (UM) System. The NextGen Precision Health Initiative/Institute (NGPHI) is a UM System initiative that will serve as a physical and intellectual hub to promote precision medicine and translational research. Scheduled to open in October 2021, the NGPHI has 6 pillars of pursuit that underpin its overall mission, namely 1) Basic and Emerging Science, 2) Cancer 3) Cardiovascular and Metabolic Disorders, 4) Neuro/Muscular Science, 5) Healthcare Delivery, and 6) Population Health. To promote advances in precision medicine, translational research, and the objectives of the NGPHI, the SOM is excited to announce a new research funding opportunity, entitled TRIUMPH, that will have a high impact on our core missions of research, education, and patient care.

Figure 1. Precision medicine (Nat Rev Cardiol 2016;10:591-602).

Eligibility for funding

All SOM faculty members are eligible to apply. Any proposal that falls within the broad continuum of precision medicine and translational research will be eligible for funding. Basic science research proposals must clearly delineate potential to inform future projects involving human subjects. Research projects that engage patients, communities, and special or underserved populations (e.g. rural, elderly) are strongly encouraged. Collaborating investigators from other MU colleges are welcome and encouraged.

Figure 2. Translational research. Adapted from Blumberg *et al.* Nat. Med. 2012;18:35-41.

However, only faculty members whose primary appointment is in a SOM department are eligible to apply as PI. Maximum award size is $100,000, with a two-year duration of funding – i.e. up to $50,000/year for 2 years in most cases. Approximately 25 applications will receive full funding. The expectation is that the TRIUMPH initiative will generate robust research findings and collaborations that will lead to the submission of numerous extramural grant proposals within 2-3 years of receipt of awards.

Deadlines/Timeline

Submission of letter of intent: September 4, 2020
Receipt of full application: October 2, 2020
Anticipated start date of funded projects: December 1, 2020

Format of proposals

Proposals must follow the format outlined in the **Table**, which is based on those of NIH R03 (Small Grant Program) and R21 (Exploratory/Development Grant) proposals, with minor modification.

Table. Required elements, ordering, and page limits of proposals

Section of Application	Page Limits*
Cover Page (must use downloadable form from SOM website)	1
Project Summary/Abstract	30 lines of text
Specific Aims	1
Research Strategy (include Significance, Innovation, Approach sections)	6
Bibliography & References Cited	4
Biographical Sketches (following NIH format, required for PI and Co-Is)	5/investigator
Budget	1
Budget Justification	1
Support letters from department chairs, Co-Is, and other appropriate individuals	1 page/support letter

Minimum font size 11 (suggest Arial); minimum page margin 0.5 inch.

<u>Submission, budgetary, and other details</u>

- A letter of intent, specifying title, PI(s), and Co-Is, must be submitted - see deadline above
- Only direct costs will be funded (i.e. no F&A)
- Maximum budget over 2 years is $100,000, with maximum of $75,000 in either year
- A faculty member may submit only one proposal as PI
- The PI's primary academic appointment must be in the SOM
- The PI must devote a minimum of 5% effort to the project.
- A multi-PI proposal may be submitted, with proportionate decreases in the minimum effort required for each PI (e.g. if two multi-PIs, minimum effort per PI is 2.5%).
- Co-investigators (Co-Is) can receive salary support if they are from the SOM or another MU college; non-MU Co-Is may be included in projects, but they cannot receive salary or other financial support from this program - i.e. no subcontracts will be issued.
- The PI's and Co-I's department chairs must provide support letters attesting that the PI will receive the requested protected research time if the award is funded.
- A fringe rate of 35.9% should be included in the budget for all salary expenses.
- Total combined <u>faculty</u> salary and fringe benefits (i.e. sum of PI[s] and all Co-Is) cannot exceed 50% of the annual budget.
- Salary caps and cost-sharing of faculty salaries and fringe benefits:
  - PIs and Co-Is whose primary appointment is in the SOM: cost-sharing of salaries is at the discretion of the PI's/Co-I's department chair.
  - Co-Is whose primary appointment is <u>not</u> in SOM: maximum allowable effort is 2.5%; NIH salary cap ($197,300) will apply.
- Trainees and research technicians can receive salary and fringe benefits support; these salaries are not part of the salary limits for faculty members.
- Equipment can be included in budget, with a cap of $7,500 total equipment expenses in either year of the award. Equipment expenses must be addressed in the budget justification section.
- Funding of year 02 is contingent on submission and review of a year 01 progress report
- A final progress report must be submitted at the end of year 02
- No-cost extensions will <u>not</u> be allowed
- Travel expenses are not allowed
- Maximum publication expenses are $2000/year
- Institutional approvals for proposed experiments (e.g. confirmation of IRB and ACUC approval) are not required with initial submissions. However, investigators must provide them prior to award activation.
- Instructions about the process of submitting letters of intent and full proposals will be released soon.
- Support of proposals subsequently submitted to NIH as an R03 or R21: If the PI of a proposal successfully funded by SOM subsequently submits essentially the same proposal to NIH as an R03 or R21 proposal for either the October 2020 or February 2021 deadlines, and the NIH proposal is also funded, the SOM award will be cancelled at the time the NIH award is activated and the PI will receive $10,000 of discretionary funds, to be used for allowable university expenses unrelated to the specific aims of the NIH award.

<u>Review process</u>

All proposals will be reviewed by at least two reviewers. Major criteria used to score applications will include 1) Significance, 2) Investigator(s), 3) Innovation, 4) Approach, and 5) Environment. Applicants will receive written critiques of their proposals. Reviewers will primarily be MU faculty members, though some external reviewers may be recruited. The faculty research leads (FRLs) of NGPHI will be members of the faculty review panel. An NIH-style scoring system will be used (https://grants.nih.gov/grants/peer/guidelines_general/scoring_system_and_procedure.pdf).