PRECISE-SG100K Call for Proposals: Frequently Asked Questions (FAQs)

Funding

1. **Will funding be available for approved Driver Projects?**
   This Call for Proposal will not provide funding. There will be several Driver Projects identified as Flagship Projects and these may receive in-kind contributions such as compute resources and/or support by data analysts.

Datasets

2. **What are the demographics of the cohort and what participant data was collected?**

   a) The **demographics** of the cohort are:
      i. Age: 21-84 years
      ii. Sex: 56% Female, 44% Male
      iii. Race: we aim to achieve a 60:20:20 mix for Chinese, Malay, and Indian participants.
   b) The cohort is representative of the general Singapore adult population.
   c) Genomic, Clinical and Research Phenotype data was collected. The Data Dictionary under Resources on the Call for Proposal website (https://for.sg/sg100k-datadictionary) lists all the research phenotype data collected. At this early stage, the data dictionary and data items are subject to change.
   d) Please note only curated data files will be provided; source 'data blobs' are not part of this data freeze.

3. **Will methylation, metabolomics, telomere length, imaging, and AX3 tracker data be available in the PRECISE-SG100K dataset?**
   These data are currently not available in the dataset but there are efforts to provide them for future updates or releases.

Proposals

4. **Is there a proposal page limit?**
   Please aim to keep the proposal concise and clear; however there is no page limit.

5. **Are preliminary results expected in the proposal?**
   If the preliminary results strengthen the proposal, please consider adding them to the proposal. They are not expected.

6. **Is it necessary to raise ethics for the proposed research study?**
   The data collection already has broad IRB approval for clinical and genomic research that is for public benefit. An example of the consent form can be found HERE. We believe this will cover all suitable, reasonable research uses. There is no need to raise new ethics to use the PRECISE-SG100K dataset.

7. How should PIs take a top-down approach based on the SG100K projects and Clinical Implementation Pilots?

Currently funded projects supported the research described below, and these are being carried forward as top-down research. Applicants should seek to either avoid overlap with the SG100K projects and PRECISE Clinical Implementation Pilots or to partner with these activities. Please refer to the following content for more information on the projects.

<u>**SG100K OF-LCG award**</u>

Funding end date: June 2025

Abstract of approved SG100K proposal

Identification of the mechanisms underlying the increased risk of cardiovascular disease (CVD) and diabetes in Asian populations, and developing affordable, effective and scalable strategies for risk stratification and prevention of these major diseases, are urgent national and global public health priorities.

To address these challenges, we first create a longitudinal population study of >100,000 Singaporeans ("SG100K") comprising comprehensive phenotypic characterisation, high quality biological samples, and linkage to national electronic health records. In partnership with the National Precision Medicine programme, we will exploit SG100K to determine the behavioural (including nutrition and physical activity), environmental, genetic and other molecular factors that underpin CVD and diabetes in the multi-ethnic Asian population of Singapore. We will use the knowledge generated to develop and validate algorithms for accurate identification of Asian men and women at risk of CVD and diabetes, taking polygenic information into account, and to identify people with monogenic metabolic defects that may cause early-onset disease. We will strengthen tools for communication of cardiovascular and metabolic risk, taking into account non-genetic and genetic information, and develop personalised approaches to behaviour change for health promotion, that are tailored to social, cultural and environmental context, and delivered by scalable digital platforms. We will evaluate the impact of our risk stratification, communication and behavioural support platforms on engagement with health promotion, and quantify efficacy and cost-effectiveness for prevention of CVD and T2D in community and primary care settings.

We will thus advance population and precision health for CVD and diabetes, the leading causes of death and disability in Singapore. In addition, we will deliver SG100K as a unique platform for state-of-the-art epidemiological, translational and precision medicine research, in the genetically distinct and culturally diverse Asian populations of Singapore, which will impact management of a wide range of chronic disease, at national, regional and international scale.

Contacts: For further information, contact Prof John Chambers (john.chambers@ntu.edu.sg) or A/P Sim Xueling (ephsx@nus.edu.sg).

<u>**PRECISE Clinical Implementation Pilots (CIPs)**</u>

Funding end date: June 2025

For more information regarding the CIPs and the PIs in charge of each CIP, please refer to our website: https://www.npm.sg/cip/.

Project Team

8. **Are the Lead-PIs required to be from educational institutions only?**
   Lead-PIs are required to hold a primary appointment in a local, publicly funded educational or healthcare institution throughout the duration of the project.

9. **Can a research fellow submit a proposal as the Lead-PI?**
   Research fellows are allowed to submit proposals as Lead PI, but the suitability will be assessed by the PRECISE-SG100K Scientific Committee after submission.

Data access

10. **What are the estimated costs for access and usage of TRUST and PRECISE TRE platforms?**
    At present the data can only be accessed through the TRUST TRE. There may be new options for PRECISE TRE in the future, but this is the current position. For TRUST costs, please refer to AWS TRE costing for guidance.

11. **If the research takes longer than 2 years to complete, will the access to the data continue after the 2 years exclusivity period?**
    In the event that data access is required for more than 2 years, there will be an option to request for extension of data access.

12. **Can the data be used for analyses other than what was initially proposed?**
    No, this is not permitted. Please include all the required analyses in the proposal.

13. **Are there any restrictions on data download? Can data generated be shared with the funding body, in case other funding sources are used to support the research activities.**
    Analyses must be performed on TRUST or PRECISE TRE platforms (when available) and must be in line with the initial proposal. Please note that only summary statistics can be downloaded; raw data cannot be downloaded. Publications MUST be shared with and approved by the PRECISE-SG100K Scientific Committee prior to submission.

TRUST

14. **Is there a separate application to request for EHR data on TRUST?**
    Driver Projects: An application to request access to EHR data on TRUST will be needed.
    Flagship Projects: If the project is selected as Flagship Project, the application to TRUST will be made through PRECISE-SG100K.

15. **Can non-EHR data (research phenotypes and genomic data) be accessed through TRUST or a separate platform?**
    At present the data can only be accessed through the TRUST TRE. There may be new options in the future, but this is the current position.