Request for Proposal

AMP CMD RFP 3: Generation of -omic data from human tissues relevant to Common Metabolic Diseases and incorporation into the CMD Knowledge Portal and/or CMD Genome Atlas

Background
The Accelerating Medicines Partnership®¹ program in Common Metabolic Diseases (AMP® CMD) is a public-private partnership between the National Institute of Diabetes and Digestive and Kidney Diseases at the National Institutes of Health and the Foundations for the National Institutes of Health, and industry partners that aims to elucidate human disease drivers to understand the underlying pathophysiology of common metabolic diseases: including obesity, atherosclerotic cardiovascular disease and heart failure, pre-diabetes, type 2 diabetes, type 1 diabetes and diabetic complications, nonalcoholic fatty liver disease (NAFLD) and steatohepatitis (NASH), and chronic kidney disease (CKD). In doing so, the AMP CMD program strives to accelerate the identification of novel, high-value, actionable therapeutic targets across common and prevalent metabolic diseases with substantial unmet medical need. Data and analytic tools attained from study cohorts or generated through AMP CMD program are made publicly available in the AMP CMD Knowledge Portal and/or the CMD Genome Atlas to the broad research community.

Request: The Foundation for the National Institutes of Health² (FNIH) is requesting proposals for development and expansion of data for the AMP CMD Knowledge Portal in 2022-23.

Issued by: FNIH Division of Research Partnerships on November 18, 2021

Objectives:
Generation of new and/or incorporation of existing -omics datasets in human tissues relevant to common metabolic diseases with integration into the AMP CMD Knowledge Portal (KP) and/or the CMD Genome Atlas (CMDGA) including:

1. Cross-sectional or longitudinal -omic level data, including bulk and/or single cell epigenomic, transcriptomic, tissue proteomics, or other data from healthy and/or diseased human tissues relevant to CMDs including but not limited to adipose tissue, liver, kidney, muscle, cardiac tissue, brain, intestines, tissue-resident or circulating immune cells, or blood in conjunction with associated clinical phenotypic data. Tissue collections from cohorts with n>20 bulk samples are preferred, and/or

2. Bulk and/or single cell Transcriptomic, proteomic, epigenomic or other data from multiple paired tissues from individual CMD patients (e.g. adipose and muscle) with relevant clinical data, and/or

3. Cross-sectional or longitudinal metabolomic data from diseased human tissues relevant to CMDs from patients for any CMDs. Tissue collections from cohorts with n>20 bulk or greater than 100 samples of single cell analyses are preferred, and/or

4. Functional data generated from primary human tissues and/or cells derived from them. Proposals that integrate multiple omics on tissues derived from deeply phenotyped cohorts are preferred. Note that studies of stem-cell derived cellular models are not within the scope of this RFP.

¹ ACCELERATING MEDICINES PARTNERSHIP and AMP are registered service marks of the U.S. Department of Health and Human Services.
² FNIH supports the mission of NIH by organizing and administering research programs pursuant to 42 U.S.C. §290b.
Note: For omics data generated in objectives 1-4, corresponding genotype data (GWAS or WGS) is preferred; if data do not exist but are possible to generate from existing DNA, this workstream can be considered as part of the proposal.

Deliverables:
1. Description of experimental design: how samples are collected, description of experimental design, methods for QC, quality metrics and analysis.
2. Description of how data contributes to understanding of CMD pathogenesis and/or target identification.
4. Integration of data into the CMD KP and/or the CMDGA to provide public access to experimental data.
5. Integration of novel tools into the CMD KP or the CMDGA and made publicly available.
6. Plan for future publications or follow up research activities.

Expectations:
1. A plan on data submission to the CMD KP Team to coordinate the completion of the milestones to the portal scheduled quarterly release.
   a. If a proposal is selected to move forward for consideration of funding, Investigators will meet with the portal team to determine how data will be incorporated into the portal. An additional plan for portal integration will be submitted as part of the Investigators’ application.
   b. This plan will include written permission(s) from cohorts’ investigators for data sharing. See CMDKP Policies on data submission, use and access.
2. Investigators are expected to deliver the project milestones by their due dates
3. Investigators are expected to submit written reports on the deliverables by the due dates
4. All milestone-driven data must be made publicly available by the due dates, unless approved in advanced by the Steering Committee.
5. Investigators are expected to present their work twice yearly, subject to their availability, to the AMP CMD Steering Committee/consortium at face-to-face meetings or via teleconferences.
6. Investigators are expected to participate in a yearly face-to-face meeting.

Project timeframe: 1-2 years

Proposal guidelines:
1. Please address the objectives and deliverables with following format:
   a. Title of your project
      • Principal investigators and co-investigators
   b. Specific Aims
   c. Timeline for deliverables
   d. Budget and justification
   e. Letters of support
   f. Bio sketches of Principal Investigators and co-investigators and published works (NIH bio sketches welcomed)
2. The proposal (excluding budget, letters of support and bio sketches) is not to exceed five pages using 10-11 pt Arial or Calibri font.
3. Send your proposal to Lynette Nguyen (lnguyen@fnih.org) and Tania Kamphaus (tkamphaus@fnih.org) by January 21, 2022.
4. FNIH will notify applicants in writing of the AMP CMD Steering Committee decision by April 30, 2022.
5. If your proposal is selected, you will participate in a teleconference with the AMP CMD Steering Committee prior to finalizing the award contract.

**Eligibility:**
Any organization from the private and public sector, inside/outside the United States is eligible to apply. AMP CMD has federated nodes in Europe and the U.S.. It is acceptable for more than one organization to collaborate and submit a joint proposal.

For more information about the AMP CMD program, please visit:
https://fnih.org/our-programs/amp/accelerating-medicines-common-metabolic-diseases and
https://www.niddk.nih.gov/research-funding/research-programs/accelerating-medicines-partnership-common-metabolic-diseases