

Funding Opportunities: NIH Publishes Solicitations for Nutrition for Precision Health Program

Lewis-Burke Associates LLC – January 26, 2021

The National Institutes of Health (NIH) has published six Funding Opportunity Announcements (FOAs) associated with its new Common Fund program, **Nutrition for Precision Health, powered by the All of Us Research Program**. The goal of this program is to build on recent advances in biomedical science, including in artificial intelligence (AI) and microbiome science, to develop algorithms to predict individual responses to food and dietary choices. The program will be the first to take advantage of the existing infrastructure and diverse research participant cohort established by the [All of Us Research Program](#) and will be structured as a consortium of centers. These centers will work collaboratively with the All of Us Research Program and each other to achieve the program's three goals:

1. "To examine individual differences observed in response to different diets by studying the interactions between diet, genes, proteins, microbiome, metabolism and other individual contextual factors;
2. To use artificial intelligence (AI) to develop algorithms to predict individual responses to foods and dietary patterns; and
3. To validate algorithms for clinical application."

The program is designed to implement several aspects of the first NIH-wide [Strategic Plan for Nutrition Research](#), which was released in May 2020.

The **Artificial Intelligence for Multimodal Data Modeling and Bioinformatics (AIMDMB) Center** will be responsible for developing comprehensive dietary intervention algorithms that can predict biological responses to nutritional and other inputs. The AIMDMB Center will also be tasked with developing a suite of visualization and analysis tools for modeling multimodal, "AI-ready" biomedical data within the All of Us Researcher Dashboard, and the Center will be a hub for communicating this data to the broader Nutrition for Precision Health consortium.

The Nutrition for Precision Health program will include three data generation centers. Data collected from these centers will be deposited in the All of Us Researcher Workbench and used by the AIMDMB Center for algorithm development, as well as by other researchers affiliated with Nutrition for Precision Health. The **Metabolomics and Clinical Assays Center (MCAC)** will "(1) generate targeted and non-targeted metabolite profiles and (2) perform or facilitate clinical assays from blood, urine and stool biospecimens." The **Microbiome and Metagenomics Center (MMC)** will "perform microbiome, metagenomics and metatranscriptomics analyses on stool samples for all participants." The **Dietary Assessment Center (DAC)** will conduct dietary assessments of enrolled participants, as well as develop innovative approaches to monitoring dietary intake.

The **Clinical Centers** will be responsible for enrolling participants into the Nutrition for Precision Health study, as well as implementing dietary intervention protocols throughout the course of the study. Because the Nutrition for Precision Health cohort will be nested within the broader All of Us cohort, all Nutrition for Precision Health participants will also be enrolled into All of Us. Clinical Centers are expected to work with All of Us Health Care Provider Organizations on participant engagement and

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enrollment. Finally, a **Research Coordinating Center (RCC)** will provide administrative management and coordination across the consortium and will work with other consortium components on research protocol development and data sharing and management.

Award Information: NIH plans to commit approximately \$126 million over five years to new awards for the Nutrition for Precision Health program, structured as follows:

Award (Link to RFA)	Number of Awards; Mechanism	Estimated Award Size
Artificial Intelligence for Multimodal Data Modeling and Bioinformatics (AIMDDB) Center (RFA-RM-21-001)	1; U54	\$2,000,000 in FY 2022 and FY 2023, \$3,000,000 per year for FY 2024 – FY 2026 (\$13 million total)
Metabolomics and Clinical Assays Center (MCAC) (RFA-RM-21-002)	1; U24	\$400,000 in FY 2022, \$5,000,000 per year for FY 2023 – FY 2026 (\$20.4 million total)
Microbiome and Metagenomics Center (MMC) (RFA-RM-21-003)	1; U24	\$550,000 in FY 2022, \$3,500,000 per year for FY 2023 – FY 2026 (\$14.55 million total)
Dietary Assessment Center (DAC) (RFA-RM-21-004)	1; U24	\$1,500,000 in FY 2022, \$2,200,000 per year for FY 2023 – FY 2025, and \$1,500,000 in FY 2026 (\$9.6 million total)
Clinical Centers (RFA-RM-21-005)	5-6; UG1	\$7,000,000 in FY 2022, \$9,500,000 per year for FY 2023 – FY 2026 (\$7.5-9 million total per award)
Research Coordinating Center (RCC) (RFA-RM-21-006)	1; U24	\$3,500,000 in FY 2022, \$5,000,000 per year for years FY 2023 – FY 2026, which includes \$2,500,000 per year for FY 2023 – FY 2026 for capitation costs (\$23.5 million total)

Eligibility: Public and private institutions of higher education, non-profit research institutions, and for-profit institutions are eligible to apply for all FOAs. Some FOAs include specific eligibility requirements with respect to the background and expertise of the personnel involved; see each solicitation for specific details.

Due Dates: For all awards, applications are due **April 6, 2021**. Letters of intent are optional and are due 30 days prior to the application due date.

Pre-Application Webinar: NIH will host a pre-application webinar to discuss the structure and goals of the Nutrition for Precision Health program, including each of the FOAs associated with the program, on **February 11, 2021 at 11 am ET**. Pre-registration is required and can be completed [here](#). Questions may be sent in advance to nutritionresearch@mail.nih.gov (questions accepted through February 6, 2021).

Sources and Additional Information:

- All six Funding Opportunity Announcements are available at <https://commonfund.nih.gov/nutritionforprecisionhealth/fundingopportunities>.
 - Opportunities are individually linked in the table above.

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- A Frequently Asked Questions page for the Nutrition for Precision Health program will be regularly updated and can be found at <https://commonfund.nih.gov/nutritionforprecisionhealth/faqs>.
- The concept clearance presentation for the Nutrition for Precision Health program, initially presented in May 2020, is available at https://dpcpsi.nih.gov/sites/default/files/12.20PM-CF_Concept_Nutrition_for_Precision_Health_Rodgers_a_508.pdf.
- The 2020-2030 Strategic Plan for NIH Nutrition Research can be found at https://dpcpsi.nih.gov/sites/default/files/2020NutritionStrategicPlan_508.pdf.