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Purdue's open limited submission competitions, templates, and limited submission policy may be found at http://www.purdue.edu/research/funding-and-grant-writing/limited-submissions.php. Please contact Sue Grimes (sgrimes@purdue.edu) with any questions.

1. Limited Submissions:

Preproposals should be submitted via Purdue's InfoReady portal (https://purdue.infoready4.com/). For any case in which the number of preproposals received is no more than the number of proposals allowed by the sponsor, the OOR will notify the PI(s) that an internal competition will be unnecessary. Questions should be addressed to OORlimited@purdue.edu.

Limited Submission: USAID/CRS Farmer-to-Farmer Promoting Agricultural Volunteer Engagement and Support (PAVES) Subawards Program F2F has four main objectives: Increase agricultural sector productivity and profitability; Improve conservation and sustainable use of environmental and natural resources; Expand agricultural sector access to financial services; and/or Strengthen agricultural sector institutions. F2F Programs build institutions and transfer technology and management expertise to link small farmers with markets that exploit comparative advantages in production, processing and marketing. Activities are varied and conform to country needs and strategic objectives. Applicants responding to this RFA should propose projects that align with the goals and objectives of the F2F Program as well as demonstrate how their proposed projects tie into larger U.S. Government development strategies. CRS/PAVES will host an informational webinar on December 6, 2024. Only *one* Concept note per organization/institution will be accepted.

Internal deadline: Preproposal due in InfoReady by December 2 (template)

Sponsor deadline: December 20 – Concept note; January 23 – Advancement to collaborative program design phase

Limited Submission: NIH Environmental Health Sciences Core Centers Program (P30) This NOFO invites grant applications for Environmental Health Sciences Core Centers (EHSCC). As intellectual hubs for environmental health science research, the EHSCC are expected to be the thought leaders for the field and advance the goals of the 2025-2029 NIEHS Strategic Plan. The Core Centers provide critical research infrastructure, shared facilities, services and/or resources, to groups of investigators conducting environmental health sciences research. An EHSCC enables researchers to conduct their independently-funded individual and/or collaborative research projects more efficiently and/or more effectively. The overall goal of an EHSCC is to identify and capitalize on emerging issues that advance improving the understanding of the relationships among environmental exposures, human biology, and disease. The EHSCC supports community engagement and translational research as key approaches to improving public health. Only one submission is allowed per institution.

Internal deadline: Preproposal due in InfoReady by December 9 (template)

Sponsor deadline: March 18

Internal Coordination Required: DOC-NIST FY2024 CHIPS for America The purpose of the CHIPS Research and Development (R&D) programs is to advance the development of semiconductor technologies and to enhance the competitiveness of the U.S. semiconductor industry. The CHIPS R&D programs address five cross-cutting issues that were identified through interactions with stakeholders and include: Access to facilities and equipment for late-stage R&D and prototyping; Advanced packaging and testing; Advanced metrology and characterization; Advanced manufacturing technology; and Workforce development. NIST will release a series of NOFOs under this program and it is anticipated that most, if not all, will be limited submission, including those where Purdue is a sub-awardee. Based on the complexity of this program, all submissions involving Purdue as a participant will be coordinated through OOR at all stages (white paper and full submissions) including those participating as a sub-awardee.

Internal deadline: Contact OORLimited@purdue.edu if interested in participating in any of these NIST

opportunities

Sponsor deadlines: On-going

2. Selected Funding Opportunities:

NSF Coupling, Energetics, and Dynamics of Atmospheric Regions (CEDAR) The Coupling, Energetics, and Dynamics of Atmospheric Regions (CEDAR) program supports research to increase our understanding of the behavior of atmospheric regions from the middle atmosphere upward through the thermosphere and ionosphere into the exosphere. Projects explore coupling, energetics, chemistry, and dynamics on regional and global scales. The research topics include investigations of upper atmosphere responses due to a) processes driven by the lower atmospheric perturbations and (b) solar radiation and particle inputs from above. The activities supported by this program include observations from ground-based and space-based platforms, as well as theory and modeling of the upper atmosphere of the Earth and other planets in our solar systems. Novel approaches that include AI and ML tools and open data and open science practices are encouraged. Deadline: March 5

NIH Developing novel theory and methods for understanding the genetic architecture of complex human traits. The goal of this NOFO is to support applications for novel theory and methods development that enable better understanding of how genetic and non-genetic factors contribute to complex trait variation across individuals, families, and populations. Approaches should be interdisciplinary drawing from the natural and social sciences, account for interdependencies across scales of biological, social, and ecological organization, and make extensive use of theory, modeling, and validation with available large-scale datasets.

<u>R01</u> Deadline: February 5
<u>R21</u> Deadline: February 16

NIH Focused Technology Research and Development This Notice of Funding Opportunity (NOFO) supports projects relevant to the NIGMS mission that focus solely on the development of technologies with potential to enable acquisition of biomedical knowledge. Projects should be justified in terms of technical innovation and utility of such technical innovation for impacting future biomedical research. Outcomes or products of the proposed project should significantly advance the current state of the art and be sufficiently characterized for application in addressing a broad range of biomedical research questions.

<u>R01</u> Deadline: February 5
<u>R21</u> Deadline: February 16

NIH Tobacco, **Alcohol**, **and Cannabis Policy Research for Health Equity** The purpose of this PAR is to support policy research projects that examine new or adapted policies pertaining to tobacco, alcohol, and/or cannabis in the U.S., with a particular focus on how the policy or policies influence tobacco, alcohol, and cannabis use or secondhand exposure among populations experiencing disparities. Funded projects will involve authentic engagement with one or more community organizations with the aim of promoting equity in cancer prevention by addressing tobacco, alcohol, and cannabis use and exposure. The long-term goal is to support tobacco, alcohol, and cannabis policy research studies that will improve health equity and promote cancer prevention.

<u>R01</u> Deadline: February 5
<u>R21</u> Deadline: February 16

NIH Translational Research in Maternal and Pediatric Pharmacology and Therapeutics The purpose of this NOFO is to support translational and clinical research to (1) advance precision medicine in pregnant persons, lactating persons, and children through the development of novel tools, models, and other technologies that could have a direct clinical or health impact; (2) enhance the understanding of the underlying mechanisms of drug action, including the role of pediatric ontogeny and the dynamic physiological changes that occur during pregnancy and lactation; and (3) discover and develop novel therapeutics or enhance the usage of existing drugs or drug repurposing for safer and more effective medications in pregnant and lactating persons, neonates, and children. The overall goal is to improve safe and effective precision therapeutics for pregnant and lactating persons, fetuses, neonates, and children, including those with disabilities.

<u>R01</u> Deadline: February 5
<u>R21</u> Deadline: February 16

NIH Epitranscriptomics Crosstalks and Toxicants (EPCOT) (R01) The purpose of this initiative is to solicit new R01 applications that propose innovative studies to explore how exposures to environmental toxicants may inhibit, create new or otherwise impact epitranscriptomic crosstalks and provide mechanistic insights into how these interactions play a role in initiation, progression, and/or exacerbation of adverse health outcomes. Epitranscriptomic crosstalks are defined as interactions between epitranscriptomic marks and associated Readers Writers and Erasers (RWEs) and epigenomic marks and/or epigenomic RWEs, and genomic structures. Deadline: February 6

NIH BRAIN Initiative: Development and Validation of Novel Tools to Probe Cell-Specific and Circuit-Specific Processes in the Brain (R01) The purpose of this BRAIN Initiative is to encourage applications that will develop and validate novel tools to facilitate the detailed analysis of complex circuits and provide insights into cellular interactions that underlie brain function. The new tools and technologies should inform and/or exploit cell-type and/or circuit-level specificity. Plans for validating the utility of the tool/technology will be an essential feature of a successful application. The development of new genetic and non-genetic tools for delivering genes, proteins and chemicals to cells of interest or approaches that are expected to target specific cell types and/or circuits in the nervous system with greater precision and sensitivity than currently established methods are encouraged. Tools that can be used in a number of species/model organisms rather than those restricted to a single species are highly desired. Applications that provide approaches that break through existing technical barriers to substantially improve current capabilities are highly encouraged. Deadline: February 7

NIH Advancing Genomic Medicine Research This NOFO solicits proposals that stimulate innovation and advance understanding of when, where, and how best to implement the use and sharing of genomic information and technologies in clinical care in all persons irrespective of racial/ethnic background or socioeconomic status.

<u>R01</u> Deadline: February 11
<u>R03</u> Deadline: February 11
<u>R21</u> Deadline: February 11

NIH Development of Animal Models and Related Biological Materials for Research (R21) This NOFO encourages innovative research to develop, improve, characterize, and preserve animal models as well as animal model related biological materials, technologies, and new approach methodologies (NAMs) for studies relevant to human health and disease. This NOFO also seeks projects aimed at improving the diagnosis and control of diseases that could confound or interfere with animal use in biomedical research. The proposed project must have broad applicability to multiple NIH Institutes or Centers (ICs) to align with the NIH-wide mission of the Office of Research Infrastructure Programs (ORIP). The proposed studies must include animal models and explore multiple body systems or multiple categories of diseases. Deadline: February 16

NIH Exploratory/Developmental Research on Guillain Barre Syndrome (GBS) and Chronic Inflammatory

Demyelinating Polyneuropathy (CIDP) (R21) This notice of funding opportunity (NOFO) solicits applications for support of exploratory/developmental studies aimed at accelerating progress toward understanding, preventing or treating Guillain Barre Syndrome (GBS) and/or Chronic Inflammatory Demyelinating Polyneuropathy (CIDP). Innovative studies of disease mechanisms, susceptibility factors, model systems, biomarkers and treatments are encouraged. Deadline: March 3

NIH-NCI Mentored Research Scientist Development Award to Promote Diversity (K01) This Funding Opportunity Announcement (FOA) is a continuation of the NCI Mentored Research Scientist Development Award to Promote Diversity (K01) to enhance the diversity of thought in the NCI-funded cancer research workforce by supporting eligible individuals from diverse backgrounds, including groups that have been shown to be nationally underrepresented in the biomedical, behavioral, social and clinical sciences. This FOA provides salary and research support for a sustained period of "protected time" for intensive research career development under the guidance of an experienced mentor. This FOA is designed specifically for applicants proposing research that does not involve leading an independent clinical trial, a clinical trial feasibility study, or an ancillary study to a clinical trial. Deadline: February 12

NIH Digital Health Technology Derived Biomarkers and Outcome Assessments for Remote Monitoring and Endpoint Development (UG3/UH3) The purpose of this NOFO is to support rigorous development and validation of Digital Health Technology (DHT) derived biomarkers or clinical outcome assessments (COAs) for remote monitoring to fill a defined unmet clinical endpoint for interventional clinical trials. To increase standardization and improve clinical adoption, applicants must propose to develop and evaluate the DHT enabled biomarkers or COAs in three or more diseases or conditions. Applicants must also propose to conduct development studies that are informed by people with lived experience (PWLE) and patient advocacy organizations. The first phase of this funding mechanism is to evaluate the technical performance of the proposed DHTs with PWLE input; the second phase is to support a prospective longitudinal clinical study in representative populations to validate the DHT. Research outcomes should include demonstrating how a meaningful change in the biomarkers or COAs derived from the DHT(s) can be statistically measured and quantified at the individual participant level. Deadline: February 21

NIH Analytical and Clinical Validation of Biomarkers for Alzheimers Disease (AD) and AD-Related Dementias (ADRD) (U01) This NOFO invites applications to accelerate the establishment of effective and reliable biomarkers of Alzheimer's disease (AD) and AD-related dementias (ADRD) for use in therapy/medical product discovery and development, clinical trials, and/or clinical practice. Specifically, this NOFO will support analytical and/or clinical validation of a biomarker, composite biomarker, or biomarker signature, with rigor comparable to the expectations described in the Food and Drug Administration (FDA's) Biomarker Qualification Program (BQP) or recommended by other FDA regulatory pathways. Deadline: February 5

NIH-NCI Research Opportunities in Established Cancer Epidemiology Cohort Studies (U01) Through this Notice of Funding Opportunity (NOFO), the National Cancer Institute (NCI) encourages grant applications to support research in established cancer epidemiology cohort studies, defined as studies that have achieved their initial planned recruitment goal. Applications must include hypothesis-based research using data from an established cohort study and are expected to include support for cohort maintenance, continued follow-up, and sharing of the existing resources in addition to addressing research questions across the cancer control continuum. Deadline: February 28

DOE ARPA-E Catalytic Application Testing for Accelerated Learning Chemistries via High-throughput Experimentation and Modeling Efficiently (CATALCHEM-E) The CATALCHEM-E program aims to disrupt and accelerate the design and development cycle for heterogeneous catalyst R&D workflows. The program will span from rational material discovery to synthesis and final reactor testing. These novel workflows will be developed by coupling the latest advancements in artificial intelligence (AI) and machine learning (ML) with high-throughput experimentation (HTE) to verifiably complete 10–15 years of traditional catalysis R&D work within 12–18 months, thus achieving more than a ten-time acceleration in the catalyst development cycle. The

program will then use these new tools to discover and optimize catalytic chemistries relevant to ARPA-E's goals. These new chemistries will ultimately help advance the objective of net-zero carbon emissions by 2050. Deadlines: December 17 – Concept paper; TBD – Full application

DOE High-Assay Low-Enriched Uranium (HALEU) Transportation Package, Inflation Reduction Act (IRA) The objective of this NOFO is to research, develop, and acquire NRC certification for HALEU transportation packages focused on front-end transportation packaging needs to support a sustainable supply chain. Industry's front-end HALEU transportation needs include: 1. Transport of enriched, up to HALEU is UF6 enriched up to <20% 2. Transport of tails/de-converted material, 3. Transport of fresh finished fuel. To address the most immediate needs in this funding opportunity, DOE is considering the following transportation packages: 1. Oxide transportation packages. 2. Metal transportation packages. 3. UF6 transportation packages. 4. Packages capable of supporting combinations of the above. There are two topic areas of interest: Topic Area 1: Applications for NRC certification of new package design concepts; and Topic Area 2: Applications for NRC certification of modification to existing design packages. Cost sharing is required at 50% of the total project cost for Demonstration projects. Deadline: January 21

<u>NASA-ROSES NASA Energy and Water Cycle Study (NEWS)</u> A hallmark outcome of the NEWS program is the global NEWS Integrated Analysis (NEWS-IA), which provides internally consistent estimates of monthly energy and water budget components for 25 regions over the period from 2003-2017. This program element seeks proposals to leverage the NEWS-IA dataset and ongoing development work to better quantify and characterize changes to Earth's water and energy cycles. Deadlines: January 9 – NOI; February 20 - Proposal

NASA-ROSES Artemis IV Deployed Instruments Program
Through this Artemis IV Deployed Instruments program element, NASA's Science Mission Directorate solicits proposals for instruments to be deployed on the surface of the Moon during Artemis IV, the second crewed landing of the Artemis campaign. Payloads selected through this program element will be considered candidate payloads for the Artemis IV payload manifest; the final payload manifest will be determined at a later date. Artemis IV will be a landed mission in the south polar region of the Moon, within 6º of latitude from the south pole, providing potential access to surface-accessible volatile deposits. Deadline: December 17

NASA-ROSES Habitable Worlds Observatory System Technology Demonstrations and Mission Architecture
Studies The overall goal of this solicitation is to increase several HWO's enabling ultrastable observatory system-level technologies to TRL5 to achieve the needed 1010 high-contrast coronagraphy required to directly image and characterize Earth-sized planets around Sun1like stars in our solar neighborhood. Deadline: February 6

<u>USDA-NIFA Smith-Lever Special Needs Competitive Grants Program</u> This program supports innovative, education-based approaches to address disaster preparedness and specific responses related to disasters or disaster threats caused by natural, human-made, or technological hazards, or by other factors that contribute to the exposure or vulnerability of a community. The SLSNCGP requests proposals for two types of projects: 1) Extension Standard Projects, and 2) Extension Planning Projects. 1:1 matching funds are required. Deadline: February 13

3. Anticipated Funding Opportunities

<u>DOE Notice of Intent: Accelerating CO2 Conversion Technology Development and Deployment – Biological, Catalytic, and Mineralization Pathways</u>

4. Other:

NSF Frequently Asked Questions (FAQs) for NSF Trailblazer Engineering Impact Award (TRAILBLAZER) Program

New Resource for Researchers: NIH BioArt Source, a Free Science and Biomedical Art Resource Library

NSF Dear Colleague Letter: National AI Research Resource (NAIRR) Pilot seeks datasets to facilitate AI education and researcher skill development