CONTRACT CONCEPT REVIEW

NTP Board of Scientific Counselors Meeting
July 11, 2023

Title: **Support for Predictive Toxicology and Evidence Integration for the Division of Translational Toxicology (DTT), National Institute of Environmental Health Sciences (NIEHS)**

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Background and Significance:
The Division of Translational Toxicology (DTT) at the National Institute of Environmental Health Sciences (NIEHS) has a long history (> 40 years) of performing research via contract mechanisms. DTT uses traditional and cutting-edge approaches and technologies to better understand how factors in our environment may impact human health. DTT scientists work in multidisciplinary teams and may collaborate with other federal agencies, institutes, industry, and academia. Research initiatives of the DTT can be found at https://www.niehs.nih.gov/research/atniehs/dtt/index.cfm.

Justification for Use of Contract Mechanism:
DTT requires scientific and technical support for predictive toxicology and evidence integration, including the development and implementation of computational, alternative, literature-based, and quality assessment tools and methodologies. Such approaches would include using scientific expertise and a variety of methodologies (e.g., literature-based, in vitro, in chemico, and in silico models) to interpret diverse types of information relevant to the effects of environmental exposures on human health. The scope of the required capabilities and availability of personnel with relevant experience to perform these activities exceed the resources available at NIEHS; therefore, we request approval to obtain this support through a contract mechanism. This contract concept includes capability requirements that would likely span multiple statements of work, solicitations, and/or contracts.

The proposed requirements (noted below) encompass current capabilities and an expanded/additional focus on the identification of knowledge gaps and targeted research questions as well as the development, evaluation, and implementation of new methodologies to address them. The capability requirements include, but are not limited to, the following areas:

- Developing, evaluating, and implementing computational tools and methodologies
- Developing, validating, and implementing alternative approaches for toxicity testing
- Searching, screening, evaluating, and synthesizing information from environmental health literature
- Compiling and preparing reports for publication, editing documents, and providing technical review for completeness, accuracy, and readability
- Managing logistics for external peer reviews, including identifying and maintaining a directory of scientific experts, conducting conflict of interest screening, and preparing documents for peer review
- Managing logistics for remote and in-person events, including Federal Advisory Committee Act (FACA) meetings, interagency engagements, and public workshops
- Assessing the quality (accuracy, consistency, and completeness) of products, including toxicology study reports, literature evaluation reports, manuscripts, and data pipelines by comparing their content to original records and documentation
- Identifying knowledge gaps and formulating discrete research questions
- Tracking contract project spending, milestones, and deliverables, and managing contract personnel with efficient coordination of schedules to meet project needs