DECIDE Exploration Topic Question and Answers (Q&A) October 22, 2024

Q1: Does the DECIDE-ET permit international collaborators?

A1: Yes, non-U.S. entities may participate to the extent that such participants comply with any necessary nondisclosure agreements, security regulations, export control laws, and other governing statutes applicable under the circumstances. Non-US entities are encouraged to collaborate with domestic U.S. entities. The DECIDE-ET eligibility requirements can be found in section 2 of the Master Announcement Instructions for the Advanced Research Project Agency for Health, ARPA-H-MAI-24-01 found on SAM.gov. Section 2.1.2 of ARPA-H-MAI-24-01 states that pursuant to 42 U.S.C. 290c(n)(1), ARPA-H will prioritize awards to entities (organization and/or individuals) that will conduct funded work in the United States. In no case will awards be made to entities organized under the laws of a covered foreign country (as defined in section 119C of the National Security Act of 1947 (50 U.S.C. § 3059).

Q2: When will the OT Bundle containing application templates be released and where can they be accessed?

Answer:

A1: The OT bundle containing application templates will be released with the Final Solicitation publication <u>on SAM.gov</u>, where you can currently find the draft solicitation. When available, the OT Bundle will be added to the attachments and links section.

Q3: Can the DECIDE-ET fund the development of novel manufacturing prototypes (e.g., bioreactor technology)?

A1: No, it is out of scope for the DECIDE-ET to fund the development or clinical validation of novel manufacturing prototypes. The DECIDE-ET will fund the development of new tools/approaches for variability detection within autologous cell manufacturing and dynamic decision support tools as further described in the solicitation. The variability detection and decision support tools may be based on previously clinically validated manufacturing technologies with preference for technologies that are widely leveraged in the field.

Q1: Does ARPA-H help to find collaborators who have expertise in modeling, simulation, and statistical analysis?

A1: Yes, ARPA-H is putting together a teaming page to facilitate connections between prospective proposers. Information on teaming will also be housed on the <u>DECIDE-ET page</u>.

Q1: Can we have a meeting with the Program Manager?

A1: No, Program Managers cannot have individual conversations with potential proposers. Entities that are interested in the DECIDE-ET should review all materials linked from the <u>ARPA-H DECIDE-ET</u> landing page and the <u>DECIDE-ET SAM.gov</u> landing page, including the <u>recording of the DECIDE-ET</u> <u>Overview Webinar</u>. All remaining questions regarding the DECIDE-ET Module Announcement should be directed to https://solutions.arpa-h.gov/Ask-A-Question, ATTN: ARPA-H-MAI-24-01-06.

Q1: Are off-the-shelf allogeneic cells for treating rare diseases in instances where autologous production is not an option within scope for the DECIDE-ET?

A1: No, allogeneic cells are considered out of scope for the DECIDE-ET. The focus of the DECIDE-ET is on autologous cell therapy for rare pediatric genetic diseases with an emphasis on hematopoietic stem cells. While allogeneic cell production share commonalities with autologous cell manufacturing, the unique sources of variability and manufacturing processes related to autologous cell manufacturing have been selected for initial proof-of-concept technology development.

------ New update as of October 22, 2024 ------

- **Q7:** The solicitation states a preference for hematopoietic stem cells (CD34+ cells). Is there flexibility in using CD4/CD8+ T-cells for autologous CAR-T?
- A7: Yes, there is some flexibility in cell type. Proposals must include manufacturing processes involving hematopoietic stem cells. A preference will be given to proposals that consider multiple cell types (e.g., CD34+ and CD4/CD8+ T-cells), yet one of these cell types must be a hematopoietic stem cell. If a T-cell manufacturing approach is proposed, in addition to hematopoietic stem cell manufacturing, the focus of the therapy must remain on rare pediatric genetic diseases and not solely on a pediatric cancer(s).
- **Q8:** Are proposers allowed to submit drugs or experiments that will be submitted for IND enabling studies or that are currently in clinical trials?
- A8: Yes, proposals may include specific reagents, methods, and components that will be submitted for IND approval or that are currently in clinical trials. Strong proposals will describe platform technologies and/or approaches that could be used by the wider cell therapy community for more efficiently and accurately identifying and verifying variability across diverse manufacturing systems and cell types.
- **Q9:** Is the DECIDE-ET interested in hardware and software solutions for signature detection. Would the hardware/software be made available at each of the different manufacturing sites?
- **A9:** Yes, we are open to hardware and software solutions. Regardless of solution approach, the technologies would need to be deployed and tested across performer-specified manufacturing locations (e.g., across multiple locations or within different contexts). Additionally, hardware/software technologies would need to be made available with IV&V partners for testing.
- **Q10**: How can performers identify statistically robust signatures in Phase II of the DECIDE ET in situations where obtaining research samples of cells from a sufficient number of rare disease patients is impractical?
- A10: The DECIDE-ET aims to identify, quantify, and mitigate sources of production variability across small batch manufacturing of autologous cell therapies for rare diseases. In pursuit of this goal, researchers must obtain critical information regarding properties of cells, pre- and post-engineering, from rare disease patients. Proposals should describe methods for obtaining and analyzing a sufficient number of patient cells to establish a statistically robust signature in Phase II of the DECIDE-ET. In scenarios where sample numbers may be limited, proposals should describe alternative approaches and/or areas of innovation to establish statistically robust signatures. This may include use of alternative cells, in silico methods, or other novel approaches.
- **Q11**: May the technologies and methodologies developed under a grant award be available for the innovator to license or sell?
- A11: ARPA-H expects technologies to be commercialized and subsequently licensed or sold. The final solicitation will contain a Model Agreement that will outline restrictions, which include sales and licensing related to certain foreign entities.
- **Q12:** How will the deployment of technologies and methodologies developed during the DECIDE ET help AMC's avoid substantial costs and resources?
- A12: One of the most significant challenges facing AMCs establishing and sustaining gene therapy programs for ultra-rare diseases is the financial burden of guiding programs through clinical testing to BLA approval. Achieving BLA approval often involves adapting academic manufacturing processes into commercial processes and completing expensive and time-intensive process validation studies. This financial strain is particularly burdensome for ultra-rare disease programs, where the market size often may not cover these costs. The technologies and methodologies developed during the DECIDE-ET, including variability detection tools and statistical approaches for risk-adjusted decision making, will help dynamically inform the validation requirements in AMC settings based on the scale of therapy recipients, thereby reducing costs while maintaining high standards across critical quality attributes.

Q13: Should proposals include assessments of critical quality attributes against pre-clinical and/or clinical data?

A13: Yes, proposals should include some level of information regarding critical quality attributes (CQAs) against pre-clinical and/or clinical data. In order to assess manufacturing variability and the impact of that variability on a particular cell product, one must know certain CQAs of that product. We understand that the depth and breadth of CQA information may be limited based on the state of the cell product (e.g., pre-clinical) but proposals should provide sufficient data to demonstrate that the proposed technological innovation can advance variability detection and quantification while linking that variability to its impact on the cell product.

Q14: Should proposals describe and quantify how their proposed innovation would reduce commercialization costs and/or costs of goods manufactured if successful?

A14: No, proposals are not required to describe or quantify how their proposed innovation would reduce commercialization costs and/or costs of goods manufactured if successful. Although, if such information is available then applicants may include cost reduction calculations in their proposals.

Q15: Should applicants describe how they will determine clinically relevant outcomes for their data sets and how the data will be collected and curated?

A15: No, applicants are not required to describe how they will determine clinically relevant outcomes for their data sets and how the data will be collected and curated. Although if inclusion of such strategies is critical to understanding the strengths of proposed ET solutions, then proposers are encouraged to include this information.

Q16: Is DECIDE-ET's long-term objective to enable commercialization of cell therapies from Academic Medical Centers and could the funding opportunity be broadened beyond AMCs to include other organizations looking to commercialize rare disease assets?

A16: Yes, a long-term goal of the DECIDE-ET is to improve the commercial viability of cell therapies for rare or low-volume cell therapies. Achieving this goal will involve technical innovation that can be deployed across AMCs, and may be applicable and compatible within other settings. Proposers are not limited to AMCs, but the technologies and methodologies must be adaptable to cell manufacturing in AMC settings.

Q17: How is "small batch" defined for the DECIDE-ET?

A17: In the context of the DECIDE ET, "small batch" refers to the ultimate number of patients receiving a therapy, rather than the volume of manufactured material. As stated within the solicitation, "[p]roposals must describe manufacturing processes that could be used for treating/curing ultra-rare pediatric diseases (i.e. <100 patients per year)."