Goals for 10-month Translator Reasoning Tool Prototypes

- Demonstrate the utility of integrating different types of knowledge sources to address translational research questions, including biomedical facts, results from models of biology and inferences either imputed or extrapolated from existing data
- Demonstrate progress on the development of algorithms that enable answering "how?", "what if?" and "why?" classes of translational research questions autonomously through:
    - the identification of relevant knowledge sources to answer a question
    - the construction of queries to those identified knowledge sources that retrieves relevant data
    - the analysis of the retrieved data to produce a final answer or dossier of information
- Demonstrate the potential to identify gaps in existing data sets and their associated metadata and strategies to address these deficits. It is especially important to identify such gaps that are critical bottlenecks for the proposed reasoning mechanism(s)

- Define the requirements for a comprehensive Translator -- its architecture and development path, that will catalyze getting more treatments to more patients more quickly

Collaboration, Sharing, and Intellectual Property Expectations

This project is intensely collaborative amongst research partners and NIH staff, including the unrestricted exchange of source code and software tools written as part of this program. Software is published into a program-directed source code repository, facilitating its reuse by others.

NIH believes that data sharing is essential for expedited translation of research results into knowledge, products, and procedures to improve human health. The NIH expects and supports the timely release and sharing of final research data, software and tools that support the publication of these data from NIH-supported programs for use by other researchers. The goal of this programmatic effort is to produce data, software and tools that are open source and completely publicly available for any user. The use of proprietary resources or tools will be considered if no equivalent resources are available without use restrictions.