Q 96: BAA Table 7 indicates that both a draft report and a final System Specification Document (SSD) should be submitted in Month 11. Could you clarify whether there are differences in the expected information or data to be delivered between those two documents?
A: The two documents are very different. The general purpose of the SSDs is to document the hardware and software requirements and interfaces of the deliverables. This information must be presented in sufficient detail for the Government T&E team to prepare for the use and analysis of the deliverables in the end-of-phase evaluations. For example, as described in BAA Section 1.B.1.a on Page 10, "Any specialized computing hardware or software required to execute the code or train the algorithm must be described" in the machine learning SSD. In contrast, the reports serve as the primary documentation of the research, to include preliminary and final results. For example, as described in BAA Section 1.B.1.a on Page 7, the machine learning report "shall be written and presented in the style of a journal article intended for an audience of data scientists, and must include sufficient information to allow IARPA to understand the algorithm and efficiently evaluate its neural fidelity." This same paragraph goes on to enumerate a list of required elements in the final machine learning report. As described in BAA Section 1.B.4, each offeror must propose the content they expect to include in their draft reports.

Q 97: Is the Government's intent to have a long gap between the final SSD for Phase 1 (at Month 11) and the end of Phase 1 (at Month 18)? Will the evaluation be based on results achieved in month 11?
A: Yes. As described in the answer to Question 96, the SSD documents the hardware and software requirements and interfaces of the deliverables. This information is requested at least six months before the end of each phase to provide the Government T&E team with adequate time to acquire and/or prepare the necessary resources to evaluate the deliverables.

Q 98: Could you clarify the goals of the requirements on morphological classification? In particular, are performers required to use morphology to identify cell types? Is it acceptable for teams to propose to identify individual cells through other techniques and not provide morphological classification?
A: There is no requirement for morphological classification. Performers are required to reconstruct the morphology of all neurons (see BAA Section 1.B.2.a), and are encouraged to consider the implications of these morphologies in their computational neural models (see BAA Section 1.B.1.b), but are not obligated to use this information in any particular way.

Q 99: Would a Phase 3 demonstration task focused on predicting the position of moving objects in the future be acceptable?
A: As described in BAA Section 1.B.1.a, the performer-defined Phase 3 demonstration task is intended to demonstrate the applicability of the machine learning algorithm to abstract tasks involving non-sensory data. If the predictions of moving objects are based on sensory (e.g., video) data, this would not be consistent with the spirit of the exercise.

Q 100: BAA Table 4 states that Milestone 2.2 for neurophysiological data collection is, "≥ 1000 µm x 1000 µm x 500 µm, wholly contained within the extent of the neuroanatomical data." Does this imply that the cross section dimensions (L and W) of the collected neuroanatomical data in Phase 2 must be larger than 1mm (i.e., L>=1mm and W>=1mm)?
A: The cross-sectional dimensions (length and width) of the neurophysiological data must be equal to or greater than the cross-sectional dimensions of the neuroanatomical data. Typically this implies that the length and width will be equal to or greater than 1 mm, except in the case where the depth of the cortex is deemed to be larger than 1 mm (see the answer to Question 101 for additional details).

Q 101: BAA Table 5 in Section 1.B.2.a states that Milestone 2.2 for neuroanatomical data collection is, "≥ 1000 µm x 1000 µm x 1000 µm, or L µm x W µm x D µm where LWD ≥ 1 mm^3 and D is the cortical thickness." Was the intention to say that the sample depth (dimension D) is equal to the full thickness of the selected animal cortex or simply that D denotes thickness of the sample? For example, if the full cortical thickness is X mm (X>1) would the minimal allowed sample size be 1mm*1mm*1mm or 1mm*1mm*Xmm?
A: The sample depth (dimension D) is defined as the full thickness of the selected region of cortex. If D is greater than 1 mm, the length and/or width of the sample may be reduced (if necessary) as long as the total sample volume remains equal to or greater than 1 mm^3.