March 26th, 2023

Dear William:

I am writing to express enthusiastic support for your Diversity Specialized Predoctoral to Postdoctoral Advancement in Neuroscience Award entitled “Intersubject Synchrony in Neural and Behavioral Representations of Social Uncertainty Among Adults and Adolescents.”

I have enjoyed learning about your exciting proposal to identify neural and behavioral intersubject correlates of social uncertainty. By using synchrony within neural regions involved in social certainty judgments across participants to predict synchrony in subjective assessments of social certainty, this project can help bridge the important gap between neural activity and downstream decision making. It also incorporates novel ecological validity to a growing area in social neuroscience. Your proposed post-doctoral research would also identify crucial neural mechanisms underlying widely noted developmental differences between adults and adolescents in response to sources of ambiguity. Your proposal fits with social decision making research that my lab is producing that explores uncertainty and uses functional neuroimaging to identify neural correlates of social decision making. For example, our recent study found that uncertainty demonstrated a parabolic relationship to memory performance in an episodic memory task, with moderate uncertainty yielding the most optimal information encoding during hypothesis testing. The incorporation of memory testing and subjective uncertainty assessments to the proposed project would help determine whether these findings extend to dynamic, complex social stimuli. I believe that your technical experience and intellectual proficiencies make you an excellent candidate for this award and that your training plan is well suited to provide you with the necessary skills and knowledge to complete the outlined studies within your proposal. I look forward to having you attend my weekly lab meetings where we discuss current projects in the lab and present on recent papers in the field.

As a consultant for this project, we will meet once per month to discuss the literature on social decision making, how theories on this subject matter are tested using neuroimaging, and discuss and critique new published papers on this subject matter. I will also advise you on the technical challenges inherent to using functional neuroimaging methods, including guidance on pre-processing your data, adequately adjusting for covariates within your models, constructing appropriate models to match your hypotheses, and interpreting the results. I will advise you on how you can appropriately relate the behavior from your task to the concurrently measured neural representations. I will emphasize open sciences practices for pre-registering, reporting, and sharing your neuroimaging data. I can further provide training in the theoretical background of social decision making to aid in the interpretation of the results of your study. As we are part of the same department, I will also continue to see you at department meetings and seminars where we can further discuss topics and issues about your proposal.

In summary, I am eager to assist with this exciting line of research and your training plan.

Sincerely,

David V. Smith, Ph.D.

Assistant Professor of Psychology

Temple University