### SELECTION OF SPONSOR AND INSTITUTION

### My goal in attaining this research-training grant is to establish myself as an independent scientist. The sponsorship of Dr. Chelsea Helion and Dr. Jason Chein, the consult of Dr. David Smith and Dr. Laurence Steinberg and the resources of Temple University offer an ideal opportunity to pursue this goal by completing the training plan that I have proposed in the F99 phase of this award.

### Sponsors: Dr. Helion and Dr. Chein’s labs offer complementary training in using naturalistic, feature-rich study designs and neuroimaging techniques that are crucial to my career development as a scientist.

### Dr. Chelsea Helion (Primary Sponsor): Dr. Helion is an expert in social affective neuroscience and quantitative methodologies, with proficiencies in Hierarchical Linear Modeling and Bayesian Analysis. She is experienced in incorporating naturalistic stimuli to behavioral and neuroimaging study designs. She has received grant funding from the NSF, NICHD, and private foundations for her work with naturalistic stimuli and developmental samples. Dr. Helion has published 23 manuscripts (1040 citations; H-index: 11) and provided her expertise as a requested reviewer for several high-impact journals. Her graduate students have won numerous awards, including SPSP & SANS Poster Awards, SPSP Travel Awards, an APA research award, and a prestigious Facebook 2022 Summer Internship. Dr. Helion and I have collaborated on several projects and her guidance has been indispensable to the development of my technical, statistical, and theoretical proficiencies as a neuroscience researcher, having met weekly to monitor my progress. Dr. Helion is an excellent primary sponsor for my proposal due to her skillset, commitment to my growth as an independent neuroscientist, and strong working relationships with other members of my team.

### Dr. Jason Chein (Co-Sponsor): Dr. Chein is the Director of Temple University’s Brain Research & Imaging Center (TUBRIC), Temple’s private MRI facility, and is an expert in neuroimaging techniques and adolescent reward neurodevelopment. Dr. Chein has received support from the NSF, NIH, and private entities for his research. He has published over 70 manuscripts and book chapters (>12,000 citations; H-index: 47) and lent his expertise as an invited reviewer for high-impact journals, popular media, and legal briefings. Dr. Chein has trained 16 graduate students (02 current; 08 in research positions) and has been recognized as a distinguished educator for these efforts. His trainees have received training from prestigious courses such as the University of Michigan fMRI Training Course, Neurohackademy, and Kavli Summer Institute in Cognitive Neuroscience. Dr. Chein’s lab meets biweekly with Dr. Helion’s to discuss shared research interests. I have also collaborated with his trainees on previous work from both labs. Dr. Chein is a member of my dissertation committee and has been crucial in the development of this project. His involvement offers an exciting opportunity to utilize the vast neuroimaging resources and expertise that TUBRIC has to offer beyond that which would be possible without the assistance of an F99 award.

**Consultants:** Dr. Smith and Dr. Steinberg’s expertise will help me develop the skills I need to learn computational methods (i.e., ISC) and smoothly transition to adolescent work in my postdoctoral studies.

**Dr. David Smith (Consultant)**: Dr. Smith is a rising-star, early career scientist with two active NIH grants and three pending RO1 grants. He has won numerous awards including a 2019 Excellence in Mentoring award from Temple University, a Rising Star award from the Association for Psychological Science in 2016, and a Ruth L. Kirschstein Postdoctoral NRSA award from NIMH. Having studied techniques bridging brain-behavior in social decision-making and novel analytic approaches with Drs. Mauricio Delgado and Scott Huettel makes Dr. Smith uniquely well-suited to advise me on the analysis of the proposed work in which I will be using novel approaches to identify neural signatures and predict downstream behaviors. Drs. Smith and Helion have collaborated on research and will be co-mentoring an incoming graduate student together.

**Dr. Laurence Steinberg (Consultant)**: Dr. Steinberg is one of the most influential adolescent researchers of all time. His work has profoundly shaped our model of adolescent social development and has guided policies and interventions related to adolescent risk-taking and social relationships. The list of awards and positions awarded to him over his lengthy career is extraordinary and he has a long history of collaborating with Dr. Chein. The breadth of adolescent development knowledge Dr. Steinberg offers to me during this proposal is unparalleled and will be invaluable in the transition to my postdoctoral studies.

**Institution:** Temple is a Research I University with a full array of support services available as for the research team to complete the proposed project aims. The Department of Psychology excels as a regional and national leader in psychological research and in the training of psychology professionals. It fosters interdisciplinary research and collaboration with the Temple University Hospital and Neuroscience Program. Federal and state funding for research in the Department ranks in the top 25 of psychology departments nationally. The Department has a history of sponsoring high-quality F31 and F32 fellows. Past fellows have been well-supported by the department’s faculty and have gone on to pursue careers in psychology research and clinical psychology. Temple University is an ideal environment for my training.