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SUMMARY STATEMENT
(Privileged Communication)

Release Date: 07/13/2020
Revised Date:

Application Number: 1 F99 NS120412-01

CASTRELLON,JAIME
Duke University
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Review Group: ZNS1 SRB-B (80)
National Institute of Neurological Disorders and Stroke Special
Emphasis Panel
Review of DSPAN F99/K00 Applications

Meeting Date: 06/03/2020

Council: OCT 2020

PCC: JONESMWD

Requested Start: 09/01/2020

Dual IC(s): NB

Project Title: Dopaminergic neuromodulation of social decision making

Requested:

Sponsor:

Department: Psychology and Neuroscience

Organization: DUKE UNIVERSITY

City, State: DURHAM NORTH CAROLINA

SRG Action: Impact Score:36

Next Steps: Visit https://grants.nih.gov/grants/next_steps.htm

Human Subjects: X4-Human subjects involved - Exemption #4 designated

Animal Subjects: 10-No live vertebrate animals involved for competing appl.

1F99NS120412-01 Castellon, Jaime

RESUME AND SUMMARY OF DISCUSSION: This is a new DSPAN F99 application from Jaime Castellon who is a graduate student in the lab of Dr. Gregory Samanez-Larkin at Duke University. Reviewers indicated Mr. Castellon to be an outstanding candidate for a DSPAN Scholars award noting he has a stellar academic record and outstanding letters of reference. All letters of recommendation highlighted the motivation and outstanding skills of the Mr. Castellon. It also was noted that Mr. Castellon has done a lot of diversity outreach and has won numerous awards and honors including a Xerox Hispanic Association for Professional Advancement Scholarship, an NSF Graduate Research Fellowship, a number of travel awards and a Kavli Institute Summer Institute for Cognitive Neuroscience Scholarship. At Duke University, Mr. Castellon has received two NSF different grants related to computational modeling of decision making. Similarly, Mr. Castellon has a lot of research experience prior to graduate school and he is very well trained in statistics and measures of dopamine and dopamine receptors. From his research experience, it was noted that Mr. Castellon has 13 peer reviewed publications, of which 2 are as first author. He has 1 additional first-author paper under review that has been submitted for publication. Reviewers noted that Mr. Castellon is very well trained in statistics. The sponsor, Dr. Samanez-Larkin, was noted to be a world-class scientist in the field of decision making and to have a solid track record of funding and mentoring. The research plan was described as being densely packed, heavy on acquisition of technical skills, yet clearly laid out. Reviewers also indicated the research plan to be solid and to be a logical continuation of Mr. Castellon's current graduate research work, which is already at an advanced stage. Despite the praise, a number of minor concerns reduced overall enthusiasm. Several reviewers felt there were little to no weaknesses with Mr. Castellon or his application. In contrast others felt that the "significant consultant", Dr. Ming Hsu (UC Berkeley), plays an unclear role in the application and that it might be challenging to coordinate or learn from him given the time zone differences. Other minor concerns were that the K00 phase Aim 3 lacks a lot of details, that the proposed PET imaging might not provide sufficient sensitivity to study the dopamine dynamics that underlie decision making in humans, that the hypotheses are written as predictions rather than as hypotheses, and that no information was provided regarding the number and career of trainees mentored by the co-advisor, Hsu Ming at Berkeley. Overall, and despite the litany of concerns, reviewers felt this to be an extremely good application from an outstanding applicant who has a strong likelihood of moving on successfully as an independent researcher.

Responsible Conduct of Research (RCR): Acceptable

DESCRIPTION (provided by applicant): The ability to socially navigate the world has been strongly linked to health and well being in healthy animals and across a wide range of human psychological disorders. Developing and maintaining strong social ties depends on optimal social decision making. Success in this domain includes prosocial choices in affiliative environments and strategic learning in competitive ones. These kinds of choices involve balancing tradeoffs between maximizing rewards for oneself versus others and learning from others' preferences. Neuroimaging studies have shown that humans' decisions in interpersonal economic games recruit neural structures associated with social cognition and reward valuation. While previous studies have shown that dopamine function is paramount to decisions involving rewards for oneself, it's role in social decisions is much less well understood. Since disruptions to social decision making span multiple psychopathologies linked to dopamine dysfunction (like ADHD and schizophrenia), it is critical to understand the mechanism by which dopamine influences social decision making. To address this, the F99 phase of this proposal will investigate the relationship between dopamine function and social decision making in humans. Specifically, this work will combine positron emission tomography (PET), pharmacology, computational modeling, and behavioral experiments to address how dopamine relates to personal reward processing and decision making as well as prosocial and strategic social decisions. Results from these studies will

provide critical information about the role of dopaminergic modulation of multiple forms of social decisions and may eventually shed light on disruptions to prosocial behavior and social learning across psychopathologies. Completion of the F99 phase sets a strong intellectual, technical, and professional foundation for the postdoctoral (K00) phase of this award. During the K00 phase, training in understanding how dopamine and other neuromodulators support social decisions and whether affiliative or competitive decision deficits contribute to observed differences in psychopathology will support the development of knowledge, expertise, and skills essential to becoming an independent investigator.

PUBLIC HEALTH RELEVANCE: This research will investigate dopamine's role in human social decision making by combining multiple behavioral, computational, and neuroimaging methods. Results from these studies will identify how dopamine is related to multiple forms of social decisions for rewards and may identify disruptions to prosocial behavior and social learning across psychopathologies, given that dopamine is implicated in disruptions to reward-related decisions in schizophrenia, ADHD, and substance use disorder. Completion of the proposed work will provide the ideal transition to an independent academic research career.

CRITIQUES: *Please note that the evaluations and criterion scores from individual reviewers are provided below in an essentially unedited form. These were prepared prior to the review meeting and may not have been updated or revised after the discussion at the meeting. Therefore, they may not fully reflect the final opinions of the individual reviewers at the close of group discussion or the final majority opinion of the group. The Resume and Summary of Discussion above summarizes the outcome of the group discussion.*

CRITIQUE 1

Fellowship Applicant: 2

Sponsors, Collaborators, and Consultants: 1

Research Training Plan: 2

Training Potential/Development Plan: 2

Institutional Environment & Commitment to Training: 1

Overall Impact: This application from an outstanding graduate student trained at USC and Duke will study the mechanisms of social decision making regulated by dopamine in humans. Dr. Castellon has trained in fMRI and PET analysis at multiple institutions and is first author on two publications directly related to his goals. His primary mentor, Prof. Samanez-Larkin is a world-class scientist in the field of decision making and has a solid track record of mentoring. All letters of recommendation highlight the motivation and outstanding mentoring skills of the PI. The research plan is solid and a logical continuation of his current graduate work, which is at advanced stages. Minor weaknesses include lack of details in Aim3 of the training plan, the unclear role of the secondary mentor operating remotely from Berkeley. Overall, however, this is an outstanding application that generates high enthusiasm.

1. Applicant:

Strengths

- Undergraduate studies in Neuroscience and Political Science.
- Solid track record in research with broad research experiences in fMRI and PET imaging at multiple top tiered institutions (USC, Vanderbilt, Duke).
- Letters highlight motivation and mentoring skills

- First author on two manuscripts published in J Neurosci and Sci Rep demonstrate that he has already mastered some of the skills required for completion of Aim 2 and is prepared to go on to the next phase of his training.

Weaknesses

- *Reviewer did not provide any comments regarding weaknesses*

2. Sponsors, Collaborators and Consultants:

Strengths

- Prof Samanez Larkin is an outstanding scientist and mentor. He has ample expertise in the field of neuronal mechanisms of decision making using computational, fMRI and PET methods.
- Dr Samanez Larkin has trained multiple neuroscientists who now hold faculty positions at top research universities.
- Dr Ming Hsu, who also has a solid track record in the study of decision making in humans will advise remotely from UC Berkeley.

Weaknesses

- Dr. Pearson, a professor in biostatistics is also listed as a consultant/mentor but no biosketch is provided

3. Research Training Plan:

Strengths

- The focus of this project is to determine the role of dopamine on decisions for social rewards in human subjects and whether dopamine dysfunction mediates observed differences in features of social decisions in psychopathology. This approach is fully responsive to the RDoC construct and therefore highly significant.
- An impressive Aim1 highlights the solid skill set of the candidate in imaging acquisition and analysis of D1/D2 system in decision making.
- Aim 2 will use the same methods and analyses used previously by the candidate to determine whether D2 availability correlates with prosocial behaviors.
- Clearly identified tasks and behavioral outcomes from the prosocial decision making paradigm (dictator game vs distribution; generosity & inequality, etc.)
- The timeline is feasible, particularly considering the track record of productivity of the candidate (he has co-authored at least one manuscript at every lab he has worked.).
- Letters of potential postdoctoral mentors from Yale (Drs. Steve Chang and Molly Crockett) and U Penn (Drs. Jenkins and Kable) are included.

Weaknesses

- Aim 3 is not fully developed, other than “expand training and understanding of other neuromodulatory circuits involved in social decisions”

4. Training Potential/Development Plan:

Strengths

- The candidate is highly skilled in analysis of fMRI and PET imaging data, statistical methods in multilevel modeling, blind source separation, multivariate fMRI analysis, and meta-analysis, which will facilitate his focus on the acquisition of conceptual and professional skills.

- A detailed timeline is provided
- Training plan from sponsor is detailed and tailored to the candidate

Weaknesses

- *Reviewer did not provide any comments regarding weaknesses*

5. Institutional Environment & Commitment to Training:

Strengths

- Clearly all research facilities and intellectual environment are available for acquisition and analysis based on the number of accomplished goals in Aim 1.
- Strong institutional support and commitment in letter from the chair of the PhD granting department, Dr. Scott Huettel, and the Director of the center in which the candidate research is conducted, Dr. Alison Adcock

Weaknesses

- *Reviewer did not provide any comments regarding weaknesses*

Training in the Responsible Conduct of Research: Acceptable

Comments on Format (Required):

- The candidate completed his CITI online series containing five modules on the following topics:

Comments on Subject Matter (Required):

- Online training included :(1) History and Ethics, (2) Regulatory Overview, (3) Risk, Informed Consent, and Privacy and Confidentiality, (4) Vulnerable Subjects, (5) Education, International and Internet Research. In person training included evaluation of digital sources and strategies to increase reproducibility, publication contracts and predatory journals

Comments on Faculty Participation (Required):

- Dr. Samanez is included as mentor of informal training. Other faculty are not listed

Comments on Duration (Required):

- Durations of all courses are specified

Comments on Frequency (Required):

- Frequency is specified

Protections for Human Subjects: Acceptable Risks and Adequate Protections

- All data for this project has already been collected and deidentified.

Data and Safety Monitoring Plan (Applicable for Clinical Trials Only): Not applicable (No Clinical Trials)

Inclusion of Women, Minorities, and Ages Across the Lifespan:

- Exemption #4. All the human subject data has been collected previously and is deidentified

Vertebrate Animals: Not applicable (No Vertebrate Animals)

Budget and Period of Support: Acceptable

CRITIQUE 2

Fellowship Applicant: 1

Sponsors, Collaborators, and Consultants: 3

Research Training Plan: 6

Training Potential/Development Plan: 5

Institutional Environment & Commitment to Training: 1

Overall Impact: This is a good training application from an outstanding applicant. The training component centers on developing computational skills to analyze neuroimaging data (PET and fMRI), and determine the role of dopamine in social decision making functions, particularly functions related to prosocial behavior. The research topic is really interesting, and of high interest to the field. The role of dopamine in social decision making in humans is poorly understood, likely because of the lack of tools to measure dopamine *in vivo*. The applicant has good training in PET, the most widely used tool to measure dopamine activity in humans *in vivo*, but it's not clear that PET is sensitive enough to measure the kind of dopamine dynamics that the applicant is interested in studying during social decision making behavior. In addition, the research training component of the application is very ambitious, and it is unclear whether the applicant will complete all milestones within the short time frame. Finally, there is a concern that the application will not receive the level of rigorous training in computational modeling (the main training component of the grant) given the time and location difference between him and the co-sponsor.

1. Applicant:

Strengths

- The applicant has an impressive resume, and strong training in a variety of imaging methods to study the role of neurochemicals on reward related behavior (e.g., dopamine).
- The applicant has a set of skills and motivation to become a successful PI, and has demonstrated a great level of commitment to research field of his interest.

Weaknesses

- None

2. Sponsors, Collaborators and Consultants:

Strengths

- The primary and secondary sponsors are experts in imaging and computational field relating to social decision making, respectively.
- The sponsors have excellent training records

Weaknesses

- The F99 phase has a strong training component on computational techniques. Yet, it is unclear that the main sponsor can provide that level of rigorous training, and the consultant for this is located in California.
- There is a concern that the applicant will not have the necessary access to the "significant contributor, because of their location and time differences at UC Berkeley, which could prevent the applicant from receiving the necessary training in computational modeling for him to be an expert in the field.

3. Research Training Plan:

Strengths

- All data have been collected.
- Clever experimental designs.

Weaknesses

- There is a major concern that PET might not provide the necessary sensitivity to study dopamine dynamics underlying decision making in humans, leading to conclusions that embrace the null hypothesis. In support of this concern, the study from Aim 1a revealed no difference between groups, even with an N equal to 134. There is no plan that discusses how the applicant is going to address this issue in the Aim 2A experiment and/or the computational modeling studies in the F99 phase, or throughout his career.
- Hypotheses are not well-posed, instead they are written as predictions (i.e., expected outcomes). Hypotheses are mechanistic explanations, while predictions are findings expected from the experiments. For instance, the applicant proposes the hypothesis that “individuals with greater D2R availability in the ventral striatum were more likely to attempt to resist desires under high conflict with personal goals”. This statement represents a prediction. A well-posed hypothesis would indicate why/how D2R availability in the ventral striatum would lead to resisting desires under high conflict.

4. Training Potential/Development Plan:

Strengths

- The applicant has received great training in different imaging modalities
- The applicant has already begun to identify potential postdoc mentors for the K00 phase

Weaknesses

- The research training is very ambitious, and it seems unlikely that the applicant will be able to complete all of the experiments and publish the results in the proposed time.
- For the K00 phase, the applicant is proposing to write 1 to 2 NIH grants per year including a K99/R00, R21 and/or R01. The R21 and R01 seem excessive and unnecessary (not to mention whether it would be allowed). The applicant should focus on getting quality training, and developing his overall research career goals, as opposed to continuously writing grants during his postdoc.
- Related to the point above, the provided timeline for the research activity in the F99 phase is vague. The timestamps are not organized in a linear fashion, which makes it hard to follow.
- There does not seem to be a plan to discuss how the sponsor and applicant will tackle paper submission or revisions if (when) the applicant has moved to the postdoc position. This situation occurs regularly in the field, and the applicant and sponsor should have a clear way of how to deal with this.
- PET imaging might not be sensitivity enough to measures dopamine dynamics related to social decision making. It is recommended that the applicant seek training in a different imaging or electrophysiological modality during the K00 phase to supplement his technical skills to study dopamine dynamics.

5. Institutional Environment & Commitment to Training:

Strengths

- Duke has an impressive faculty roster and state-of-the-art facilities for the applicant to successfully achieve his goals in the F99 phase.

Weaknesses

- None

Training in the Responsible Conduct of Research: Acceptable

Comments on Format (Required):

- Acceptable

Comments on Subject Matter (Required):

- Acceptable

Comments on Faculty Participation (Required):

- Acceptable

Comments on Duration (Required):

- Acceptable

Comments on Frequency (Required):

- Acceptable

Protections for Human Subjects: Acceptable Risks and Adequate Protections

Vertebrate Animals: Not applicable (No Vertebrate Animals)

Biohazards: Acceptable

Resubmission: Not applicable (Not a Resubmission)

Select Agents: Not applicable (No Select Agents)

Resource Sharing Plans: Not applicable (No Relevant Resources)

Budget and Period of Support: Recommend as Requested

Additional Comments to Applicant (Optional)

- Some of the references do not seem to align with the text (e.g., 27 and 28)
- There seems to be a lot of synergy between the research interest of the applicant and those from the Michael Frank's lab at Brown University. I would recommend that the applicant consider his lab as potential postdoc mentor for the K00 phase
- Fallypride has a high affinity for both D2 and D3 receptors. This point should be made clearer in the grant. I assume the applicant means the D2 family, which typically includes D2, D3, and D4 receptors.

CRITIQUE 3

Fellowship Applicant: 2

Sponsors, Collaborators, and Consultants: 1

Research Training Plan: 2

Training Potential/Development Plan: 3

Institutional Environment & Commitment to Training: 3

Overall Impact: Applicant Jaime Castellon shows a great potential for becoming a successful independent investigator who will contribute significantly to the neuroscience research field. He is already the first author of two papers (one in the *Journal of Neuroscience* and another in *Scientific Reports*) and a co-author of several papers in 1) *Memory & Cognition*, 2) *Physiology & Behavior*, 3) *eNeuro*, 4) two papers in *NeuroImage* and 5) *Emotion*. More publications are in the process of being published and submitted for publication. He was awarded Best Poster Award at the 2018 and 2019 annual meeting of the Society for Neuroeconomics. He is a recipient of an NSF GRF. The mentor and co-mentor are leaders in their fields, based on their publication record and funding from NSF and NIH. Faculty mentor Dr. Gregory Samanez-Larkin has an excellent track record training women and underrepresented minority students. Applicant Castellon would benefit from taking courses to understand core concepts in biochemistry, molecular biology, genetics and evolution. The institution should have effective interventions to increase the representation and support of graduate students, postdocs and faculty that are from groups underrepresented in biomedical sciences.

1. Applicant:

Strengths

- Applicant Jaime Castellon is the first author of two papers (one in the *Journal of Neuroscience* and another in *Scientific Reports*) and a co-author of several papers in 1) *Memory & Cognition*, 2) *Physiology & Behavior*, 3) *eNeuro*, 4) two papers in *NeuroImage* and 5) *Emotion*. This shows the great potential for becoming a successful independent investigator who will contribute significantly to the neuroscience research field
- Applicant Castellon was awarded Best Poster Award at the 208 and 2019 annual meeting of the Society for Neuroeconomics.
- Applicant Castellon has conducted research since 2012 when he was an undergraduate at the University of Southern California; this first experience resulted in a co-authored publication.

Weaknesses

- The structure and conceptual framework of the needs to be improved; the first sentence of the mentions “well being in healthy animals”, but this subject is never mentioned in the rest of the and the proposal mentions that no vertebrate animal will be used. The proposal will investigate the relationship between dopamine function and social decision making in humans. What is the working definition of a “social decision”? What is an “optimal social decision” (mentioned in the second sentence of the summary)?
- The applicant has taken very few general biology undergraduate classes (only “Cell Biology and Physiology” listed). The lack of training in general biological subjects is a concern for someone conducting research and pursuing a career in neurobiology using pharmacology, positron emission tomography (PET), computational modeling, and behavioral experiments. The applicant would benefit from taking courses on biochemistry, molecular biology, genetics and evolution (evolution is the unifying theory for all fields of biology, including neurobiology).

2. Sponsors, Collaborators and Consultants:

Strengths

- Faculty mentor Dr. Gregory Samanez-Larkin is an Assistant Professor of Psychology and Neuroscience, Duke University. He has been continuously supported by the National Institute on Aging for over 12 years (F31, F32, K99/R00, R01). Currently his research funded by an NSF grant and by a NIH R01 and a R24 grants. Of the 12 current and 34 previous undergraduates, 3 current and 8 former post-bac researchers, 4 previous post-docs, and 6 current and 0 previous graduate students, 72% are women and 36% are Black and/or Hispanic (24% Black, 12%

Hispanic/Latinx). An average of 1 in 5 members of his lab over the past six years has been a Black woman, which is almost completely unrepresented in neuroscience (<1% of faculty)

- Dr. Ming Hsu will serve as co-sponsor. Dr. Hsu is an Associate Professor at the Helen Wills Neuroscience Institute, University of California, Berkeley. His research focuses on the interdisciplinary areas of decision neuroscience and neuroeconomics Dr. Hsu is also well funded. Dr. Hsu is a co-author of a paper with applicant Castrellon, published in the Journal of Neuroscience

Weaknesses

- There is no information on number and career of trainees mentored by the co-advisor that are becoming independent investigators. How many of his former graduate students and postdocs were women, underrepresented minorities and individuals with disabilities?
- In the "Personal Statement" section of the biographical sketch, the sponsor and co-sponsor should include a statement describing their mentoring and training philosophy

3. Research Training Plan:

Strengths

- The proposed research under the F99 examines how dopamine supports decisions for social rewards
- The project began with a NIH grant Drs. Samanez-Larkin and Zald 8 years ago. Now that all of the data collection is complete, the applicant, and Drs. Samanez-Larkin and Zald are working together closely on the studies proposed for the F99 phase of this award

Weaknesses

- *Reviewer did not provide any comments regarding weaknesses*

4. Training Potential/Development Plan:

Strengths

- The ultimate goal of the applicant is to lead a research lab that focuses on characterizing neurobiological mechanisms of motivated social decision making in humans
- Page 35 shows a plan (in a graphical format) with feasible research milestones for the transition from the fellowship phase of the award to the career development phase
- Applicant Castrellon will develop his leadership skills by serving on an honors thesis committee for an undergraduate that he has mentored since 2017 and by mentoring visiting undergraduate students who are underrepresented in research careers as part of Dr. Samanez-Larkin's NSF Summer Research Experience for Undergraduates

Weaknesses

- There is no formal plan for Dr. Samanez-Larkin to provide training to applicant Castrellon on best practices to train students

5. Institutional Environment & Commitment to Training:

Strengths

- The Duke Center for Cognitive Neuroscience (CCN) is a leading center for interdisciplinary research and training. The 22 core faculty have primary appointments in 9 different departments (Psychology and Neuroscience, Psychiatry, Neurology, Neurobiology, Statistical Science, Biostatistics, Biomedical Engineering, Evolutionary Anthropology, Philosophy).

- Research facilities, resources and training opportunities are adequate. PET data to be was collected by the applicant at Vanderbilt University Medical Center. Behavioral testing and neuropsychological testing are performed in the Samanez-Larkin laboratory at the Center for Cognitive Neuroscience, MR imaging is conducted at the Brain Imaging and Analysis Center (BIAC).

Weaknesses

- A critical component for the intellectual environment for the applicant's scientific development is the proportion of faculty that are from underrepresented minority (URM) groups. How many URM faculty are in the relevant departments that can serve as role models for the applicant and other URM students? What proportion of the graduate students in the relevant departments are URM? What are the institutional interventions to increase the number of URM faculty, graduate students and postdocs?
- Faculty and students from URM groups often feel isolated in research institutions because they have less empathy with the majority of scientists. URM individuals feel isolated and lack access to mentors and peers who understand the unique challenges that underrepresented groups face. What are the institutional interventions to support URM faculty and students and to make sure that they thrive professionally? What are the baselines and measurable objectives of these institutional interventions to increase the diversity of researchers in biomedical sciences?

Training in the Responsible Conduct of Research: Acceptable

Comments on Format (Required):

- Described in page 47

Comments on Subject Matter (Required):

- Described in page 47

Comments on Faculty Participation (Required):

- Described in page 47

Comments on Duration (Required):

- Described in page 47

Comments on Frequency (Required):

- Described in page 47

Protections for Human Subjects: Not applicable (No Human Subjects))

Vertebrate Animals: Not applicable (No Vertebrate Animals)

Biohazards: Not applicable (No Biohazards)

Resubmission: Not applicable (Not a Resubmission)

Select Agents: Not applicable (No Select Agents)

Resource Sharing Plans: Not applicable (No Relevant Resources)

Budget and Period of Support: Recommend as Requested

CRITIQUE 4

Fellowship Applicant: 1

Sponsors, Collaborators, and Consultants: 3

Research Training Plan: 3
Training Potential/Development Plan: 2
Institutional Environment & Commitment to Training: 2

Overall Impact: This applicant is a well-trained and talented candidate from Duke University who envisions a long-term academic career as a researcher. In the process of earning a doctoral degree in Neuroscience and Psychology, this applicant proposes to study dopamine modulation of social decision-making. Jaime is supported by a Sponsor who is well-funded and has a solid track record of training. An additional a co-sponsor is identified at UC Berkley and a consultant at UCSF. The research plan is densely packed, heavy on acquisition of technical skills, but clearly laid out. Some of the proposed studies could prove challenging; however, the letters of support seem to suggest the demand of technical capabilities will increase the chance for success.

The letters of recommendation are outstanding, and reflects the candidate's ability to negotiate effectively. Moreover, he is supported by a strong mentoring team, which is a major asset to the proposed project. However, the level of synergy between the mentors, who are in different locations across the country, is unclear. Without the necessary specific details, it appears the candidate will rely on institutional track records of the mentors cited.

For the K00 phase, the candidate plans to pursue clinical population studies by applying acquired skills in computer modeling to decipher neuromodulatory mechanisms underlying decision-making. The goal is to seek support from co-mentors and a consultant to add new technical expertise in behavior, imaging and computational methods. The plans are standard, could use some work to improve; it does not appear to be focused or personalized to match the candidate's training and developmental needs. The candidate specified labs at both Yale and Penn as potential postdoc sites, but no statement on alternatives should those plans fail to materialize by the end of her current program of study.

THE FOLLOWING SECTIONS WERE PREPARED BY THE SCIENTIFIC REVIEW OFFICER TO SUMMARIZE THE OUTCOME OF DISCUSSIONS OF THE REVIEW COMMITTEE, OR REVIEWERS' WRITTEN CRITIQUES, ON THE FOLLOWING ISSUES:

PROTECTION OF HUMAN SUBJECTS (Resume): ACCEPTABLE. E4 Exemption

- All the human subject data has been collected previously and is deidentified

VERTEBRATE ANIMAL (Resume): NOT APPLICABLE.

BIOHAZARD COMMENT: NOT APPLICABLE

MODEL ORGANISM SHARING PLAN: NOT APPLICABLE.

DATA/RESOURCE SHARING: ACCEPTABLE.

TRAINING IN THE RESPONSIBLE CONDUCT OF RESEARCH: ACCEPTABLE

COMMITTEE BUDGET RECOMMENDATIONS: The budget was recommended as requested.

Footnotes for 1 F99 NS120412-01; PI Name: Castellon, Jaime Jorge Fernando

NIH has modified its policy regarding the receipt of resubmissions (amended applications). See Guide Notice NOT-OD-18-197 at <https://grants.nih.gov/grants/guide/notice-files/NOT-OD-18-197.html>. The impact/priority score is calculated after discussion of an application by averaging the overall scores (1-9) given by all voting reviewers on the committee and multiplying by 10. The criterion scores are submitted prior to the meeting by the individual reviewers assigned to an application, and are not discussed specifically at the review meeting or calculated into the overall impact score. Some applications also receive a percentile ranking. For details on the review process, see http://grants.nih.gov/grants/peer_review_process.htm#scoring.

MEETING ROSTER

National Institute of Neurological Disorders and Stroke Special Emphasis Panel NATIONAL INSTITUTE OF NEUROLOGICAL DISORDERS AND STROKE Review of DSPAN F99/K00 Applications

ZNS1 SRB-B (80)
06/03/2020 - 06/04/2020

Notice of NIH Policy to All Applicants: Meeting rosters are provided for information purposes only. Applicant investigators and institutional officials must not communicate directly with study section members about an application before or after the review. Failure to observe this policy will create a serious breach of integrity in the peer review process, and may lead to actions outlined in NOT-OD-14-073 at <https://grants.nih.gov/grants/guide/notice-files/NOT-OD-14-073.html> and NOT-OD-15-106 at <https://grants.nih.gov/grants/guide/notice-files/NOT-OD-15-106.html>, including removal of the application from immediate review.

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