# Vice President’s Clinical & Translational (VPCAT) Research Scholars Program

## 2020 VPCAT Reviewer Critiques Sheet

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<th>Applicant Name:</th>
<th>Lisa Taylor-Swanson, PhD, MAcOM</th>
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<td>Project Title:</td>
<td><em>Mechanisms of Action of Acupuncture for the Reduction of Chronic Low Back Pain</em></td>
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## CRITIQUE 1

1. **Career Plan:** 1
2. **Scientific Mentoring Plan:** 2
3. **Research Plan:** 4
4. **Institutional Support:** 2
5. **Applicant’s Overall Potential:** 2

### 1. Career Plan

**Strengths**
- Well described plan that provides details of what the candidate will develop in combination with the VPCAT program.

**Weaknesses**
- None

### 2. Scientific Mentoring Plan

**Strengths**
- Good mentors and a track record in working with these people. Letters from mentors provide details on how they will interact.

**Weaknesses**
- Not clear how the team is going to interact.

### 3. Research Plan

**Strengths**
- This person is well placed as one of a very few PhD trained people in the acupuncture field.

**Weaknesses**
- The research plan was not developed in a way that I could logically follow what the overall objectives are. I was not clear on how the plan would develop? Just not developed to the point that a clear path forward was evident.
### 4. Institutional Support

**Strengths**
- Good letters.

**Weaknesses**
- (None noted)

### 5. Applicant’s Overall Potential

**Strengths**
- The development of alternatives for pain management are essential. It is not clear if this is going to be the best path but it certainly is a viable option if the research is done correctly.

**Weaknesses**
- Difficult to follow the research goals.

### Reviewer Comments

(None noted)
1. Career Plan: 1
2. Scientific Mentoring Plan: 1
3. Research Plan: 4
4. Institutional Support: 1
5. Applicant’s Overall Potential: 2

1. Career Plan

**Strengths**
- The well-written career plan places a clear emphasis on leadership and team management skills, as well as the conduct of clinical trials. Training in the latter is to be accomplished through completion of an online certificate and on-campus coursework, supplemented with regular discussion with one of the primary mentors.
- The proposed K01 submission is an appropriate endpoint for these career-development activities.

**Weaknesses**
- None

2. Scientific Mentoring Plan

**Strengths**
- The applicant has selected two mentors with outstanding records of programmatic research and extramural funding in clinical trials devoted to the treatment of chronic pain and reduction of side effects. The applicant had been working with Dr. Fritz for nine months at the time of application. The applicant wisely highlights publications, manuscripts, and pending grant proposals with her proposed mentors based on the work she has done since arriving to the U.

**Weaknesses**
- None

3. Research Plan

**Strengths**
- The research plan centers on identifying mechanisms of action for the use of acupuncture in the treatment of chronic lower back pain. The focus is to examine interception, the perception of internal states, and emotion regulation as mechanisms of action.

**Weaknesses**
- It is noted that one goal of the work is to develop an objective measure of interoception, but this is not explained or justified. It is not clear whether the subjective appraisals of internal states can be measured objectively. This is a major issue in the study of emotions that receives insufficient attention here. Further, this is described as “skin interoception,” but it is not clear why.
- Emotion regulation is noted as a concept that may be altered by acupuncture but this concept is not well specified — emotion regulation in general?, emotions about pain experience?, which specific emotions?, etc. The timeframe over which the process of emotion regulation would be measured is unclear (as are the situations in which emotions would be experienced and regulated in the service of particular goals), and no mention is made of what measures or kinds of measures would be used.
Little is specified about why acupuncture would alter emotion regulation. For example, is it because it creates the expectation of the offset or reduction of pain? Finally, it’s not clear what the nature or direction of the effects for changes in interoception might be – is it a greater perception of internal states that would be desirable for chronic pain patients or the perception of different or more nuanced appraisals of pain? These questions are central to the proposal.

4. Institutional Support

Strengths

- Both mentors express full commitment to the applicant and her success. The Interim Dean of the College of Nursing provides a very strong letter of support.

Weaknesses

- None

5. Applicant’s Overall Potential

Strengths

- The applicant is an Assistant Professor of Nursing and a licensed acupuncturist who also holds a Masters in Acupuncture and Oriental Medicine. The applicant has a strong publication record with additional work related to the project in press. In addition to multiple scholastic honors, she has high levels of public policy experience and national task force participation for her career stage, experience that bodes well for the translational impact of the work proposed here.
- The compelling cover letter lists multiple RFAs for research to support non-pharmacological approaches to the treatment of chronic pain, an issue of pressing national importance given the opioid use epidemic.
- The application presents a strong, focused set of research questions, and makes it clear that this candidate is exceptionally well positioned to conduct the work. The work is highly important and highly fundable.

Weaknesses

- The research plan itself needs additional development, particularly in the rationale for the key mediators proposed and the plan for their assessment and analysis.
- In addition to the extra consultation and mentorship on theory and research in the area of emotion listed in the mentor selection justification, the applicant might consider consultation with faculty from the Pain Research Center.

Reviewer Comments

(None noted)