Applicant Name: Jessica Cohan, MD, MAS

Project Title: Identifying Barriers to Patient-Centered Decision Making in Older Adults with Diverticulitis

CRITIQUE 1

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

1. Career Plan

Strengths

• The career plan builds on the applicant’s already impressive involvement in mentorship programs and research studies designed to help early career surgeons transition to initiating research. For example, although she has only been on campus a short time, the applicant has already received funds from the Utah Cancer Action Network and pilot funding from the Center on Aging to support research that is fundamental to the successful execution of her broader career aims. These broader career aims are not only to become a leader in her field but also to develop an intervention to support patient decision-making in surgical care for diverticulitis in aging adults that will have large-scale implementation. The applicant has already involved herself in numerous decision-making and research presentation groups on campus, in a wide variety of academic departments relevant to her career goals – this bodes well for the motivation and appreciation of interdisciplinary perspectives needed to conduct the proposed work.

• The coursework proposed (research in gerontology, qualitative and mixed-methods of research methods, survey methods) is a good match to her research aims and longer-term goals. These courses are likely to complement the applicant's Master's degree in Clinical Research earned through the UCSF Department of Epidemiology and Biostatistics.

• The candidate proposes a systematic approach to the development of her CV through national presentations, manuscripts submissions, journal reviewing, and grant proposals.

Weaknesses

• None
2. Scientific Mentoring Plan

### Strengths
- The scientific mentorship arrangement calls for three mentors: First, a continued scientific mentorship arrangement with Dr. Ozanne of PHS (looks like she may have been recruited from UCSF with Dr. Ozanne) and weekly meetings; second, co-mentorship with Dr. Benjamin Brooke, Associate Professor Surgery and Chief of the Health Services Research Section within the Department of Surgery (biweekly meetings); and third, Dr. Angela Fagerlin, chair of PHS (monthly meetings).
- These mentors bring not only outstanding track records of mentorship and funding but also highly relevant interdisciplinary expertise including the development and evaluation of care-coordination models for older high-risk surgical patients (Brooke) and the development and implementation of models of patient decision-making (Fagerlin).

### Weaknesses
- None

3. Research Plan

### Strengths
- The research question is well articulated, but the proposed studies less so. The research plan is a standard (but valuable) elicitation study (Aim 1) based first on audio recordings of 30 clinical visits at multiple sites followed by semi-structured interviews with patients and providers to identify qualitative themes to inform the development of a questionnaire to assess barriers to patient-centered decision making.

### Weaknesses
- The research plan for Aim 1 does not present any of the criteria that will be used to identify and evaluate qualitative themes (use of multiple raters?, use of coding software?, concepts of saturation?).
- The research plan that accompanies Aim 2 (the development of the questionnaire to identify barriers) is underdeveloped in its present form. It is not stated what psychometric criteria will be used, and there is no basis presented for the set of factors thought to influence patient-centered decision making. The proposal does not specify how these concepts will be measured or how the relationship of those factors to the barriers will be assessed. Further, it is difficult to assess the adequacy of the proposed sample size of 200 without some sense of how many factors may be involved.
- The proposal mentions many factors that may be especially important for understanding decision-making among older adults but the research plan does not seem to integrate these factors.
- In Aim 2, it is not clear how newly introduced concepts such as decisional concordance, knowledge and shared decision-making will be assessed or how they are thought to be related to the barriers or to ultimate choice of surgery versus observation.
- The work is described as innovative, but the proposal does not provide a sense of prior research in this area to permit the reader to make this determination.

4. Institutional Support

### Strengths
- All three mentors provide strongly supportive and enthusiastic letters and show a clear commitment to Dr. Cohan success. They all attest to the importance of protecting Dr. Cohan’s time. The chair’s letter shows a strong commitment to Dr. Cohan’s career success and to managing her clinical and administrative responsibilities to allow protected time for research.

### Weaknesses
- None
5. Applicant’s Overall Potential

Strengths
- This is an impressive applicant with a documented track record not only of programmatic publications but also numerous awards for teaching and clinical science presentations that suggest that the candidate will be successful in disseminating her findings. The proposal and training plans are well written. The project is a typical set of elicitation studies and is feasible to conduct in the near term. It is also likely to lead to additional funding in this important area.
- The applicant also shows an unusual degree of early involvement in interdisciplinary research training and seminars, which bodes well for her success in translational research.

Weaknesses
- The research publications seem to be dated 2015 and 2016, with one in press. There is a 2018 review article. This seeming gap in research (likely due to completing a surgical fellowship and so perhaps typical for clinical scholars in her field) is not addressed in the application.

Reviewer Comments
- (None noted)

CRITIQUE 2

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

1. Career Plan

Strengths
- The applicant articulates a career objective of conducting clinical trials and implementation research using patient-centered decision-making to improve surgical outcomes for older adults.
- The applicant proposes to build on her prior research training at UCSF by focusing on mixed methods and qualitative research.
- The applicant has submitted an RO3 Grant for Early Medical/Surgical Specialists’ Transition to Aging Research (GEMSSTAR) to the NIA
- The applicant also outlines career plan activities related to improving grant writing, presentation and leadership skills.

Weaknesses
- Coursework or other training opportunities (e.g., TIDIRH, etc.) would complement the applicant’s training to-date and align with her research objectives.
### 2. Scientific Mentoring Plan

**Strengths**
- The applicant’s mentor, Dr. Ozanne, has a relationship with the applicant dating back to their time together at UCSF. They have one co-authored paper together.
- Dr. Ozanne’s expertise is decision science.
- Drs. Brooke and Fagerlin will provide additional mentorship.
- A schedule outlining the mentoring activities of the team is provided.
- The mentoring team has an excellent record of providing mentorship to junior faculty members.

**Weaknesses**
- None noted

### 3. Research Plan

**Strengths**
- The applicant outlines a well-defined Research Plan with an appropriate progression of funding targets.
- The applicant has submitted her GEMMSTAR application and describes contingencies based on whether she receives this award or will need to resubmit.
- The 2 Aims outlined by the applicant are well-aligned with her career plan objectives and activities.

**Weaknesses**
- None noted

### 4. Institutional Support

**Strengths**
- The applicant’s mentors each provide a supportive letter and express commitment to their mentoring role for the applicant.
- The applicant’s Department Chair will support the time commitment necessary for the VPCAT program.

**Weaknesses**
- None noted

### 5. Applicant’s Overall Potential

**Strengths**
- The applicant’s research area and her research plan represent significant topics (patient-centered decision-making and older adults) which will continue to have excellent potential for external funding.
- The applicant’s career trajectory to-date demonstrates a commitment to clinical research.
- The mentoring team is outstanding.
- Department commitment is strong.

**Weaknesses**
- No significant weaknesses are noted.

### Reviewer Comments

(None noted)