

Notice of Special Interest: Administrative Supplements to
Participate in the NCI Early-Stage Surgeon Scientist Program
(ESSP) Pre-Application Webinar
NOT-CA-21-100

AGENDA

1:00 pm ET: Welcome & Introductions (Dr. Zahir)

1:10 pm: ESSP Presentation (Dr. Zeiger)

1:50 pm: Q&A Session (NCI Panel, Moderated by Dr. Bogler)

2:30 pm: Adjourn

NCI Panel



Oliver Bogler, PhD
Director
Center for Cancer Training



Henry Ciolino, PhD
Director
Office of Cancer Centers



Lindsay Demblowski, BS
Scientific Analyst
Surgical Oncology Program



Erika Ginsburg, MA
Chief
Office of Training and Education



Alison Lin, PhD
Acting Chief, Diversity Training Branch
Center to Reduce Cancer Health
Disparities



Crystal Wolfrey, BS
Director
Office of Grants Administration
Chief Grants Management Officer



Nas Zahir, PhD
Chief, Cancer Training Branch
Center for Cancer Training



Martha Zeiger, MD, FACS
Director
Surgical Oncology Program

Notice of Special Interest: Administrative Supplements to
Participate in the NCI Early-Stage Surgeon Scientist
Program (ESSP) Pre-Application Webinar
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*Martha A. Zeiger MD, FACS
Director of the Surgical Oncology Program*

Application Due Dates: December 8, (2021, 2022, 2023)

Earliest Start Dates: March 1, (2021, 2022, 2023)

Expiration Date: December 9, 2023

Purpose

- Administrative supplement funding to support and train early-stage surgeon scientists (ESSP) conducting cancer-related research
- Goal to accelerate them into an independent surgeon scientist career

Background

- Physician scientists decreased from 4.7% of the workforce to 1.5% since the 1980s;
- Reasons cited: relative diminished NIH funding over several decades, economic pressures for clinical productivity, administrative responsibilities, & difficulty obtaining extramural funding

Challenges surgeon-scientists face

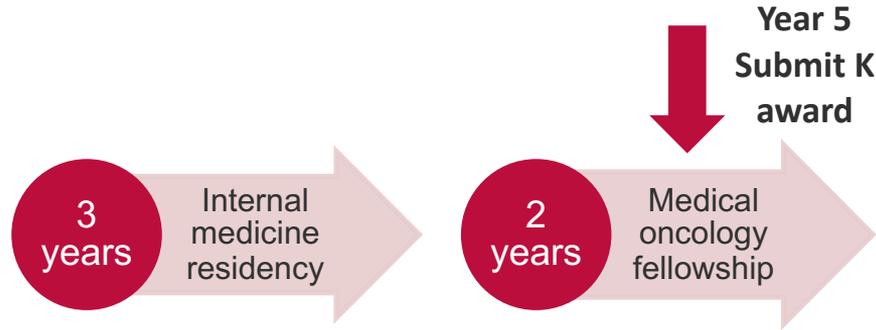
- Administrative responsibilities
- Difficulty obtaining grant funding
- Clinical productivity pressures
- ***Hospitals & procedure-based revenue***
- ***Surgical training paradigm***

Keswani, S *et al*; *Ann Surg*. 2017

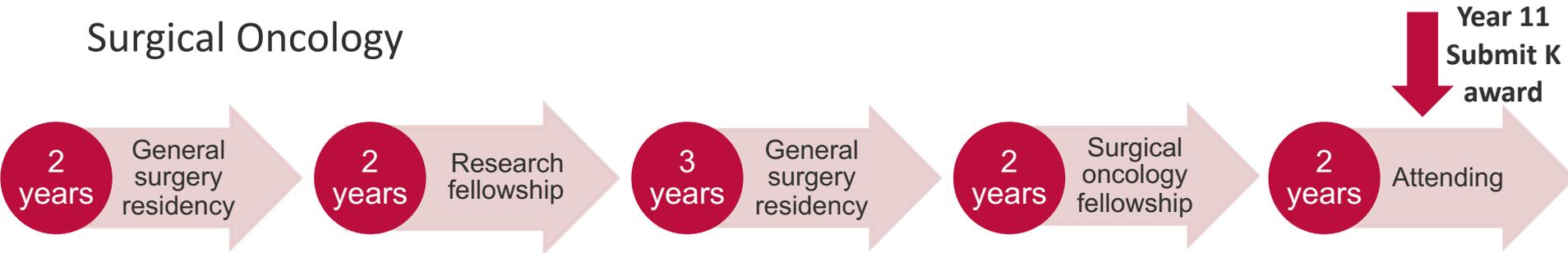
Jain, MK *et al*; *NEJM*. 2019

Training Paradigms

Medical Oncology



Surgical Oncology



Overall ESSP

- Participants from across the United States trained in cohorts in cancer-related research
- Participants chosen through administrative supplement to grantee's NCI-designated Cancer Center Core Grant (P30) or Comprehensive Partnerships to Advance Cancer Health Equity (CPACHE; U54)
- Intramural surgeon scientists may also apply to participate in the program; administrative supplement of intramural PEI base budget
- Mentoring committee established for each participant, consisting of content experts from academic medical centers, the NCI and NIH
- Timelines and milestones created for participants: 1) manuscript submissions, 2) grant proposal submissions and obtaining additional funding, 3) national presentations, and 4) progress reports
- Annual surveys from participants and mentors conducted to improve program organization, educational sessions, and outcome metrics

NCI ESSP Structure

- 5-year pilot program will support a total of 36 early-career surgeon scientists total 12/yr. Intramural surgeon scientists also eligible
- Each in a 3-year program of three cohorts of 12 investigators/cohort, staggered a year apart
- Quarterly symposia: grant writing seminars, content area mentoring, scientific methods curriculum and more.

Funding per ESSP Participant

- up to \$125,000 in direct costs annually to cover 6 calendar months effort and other allowable costs including travel and support for research training activities
- total cost approximately \$195K (estimating F&A rate at 55%).

Diversity, Equity and Inclusion

- American College of Surgeons
- Association of Women Surgeons
- Indian American Surgical Association
- Society of Black Academic Surgeons
- Society of Asian Academic Surgeons
- Others
- Diversity, equity and inclusion will also be a factor in recruiting mentors for the ESSP participants to ensure that the ESSP community reflects these values.

ESSP Participant Milestones

- Second and third years of funding dependent on achieving sufficient progress towards milestones: 1) acceptance of either an abstract at a society meeting or a manuscript by a journal; 2) submission of an NIH grant application; 3) submission of a non-NIH grant application; 4) participation in all professional development sessions offered by the ESSP.
- Intramural Physician-Scientist Early Investigators will be expected to submit an internal NIH proposal and a non-NIH grant.

Evaluation Metrics

- Program evaluated annually for outcomes, by administering participant surveys, conducting exit interviews of participants graduating from the program, academic activity of participants and alumni.

Eligibility and Eligible Institutions

- Active NCI P30 Cancer Center or CPACHE U54 Center ISUPS awardees are eligible

Not Eligible

- Centers which will enter an extension year during the fiscal year in which this award will be made

ESSP Participant Candidate Requirements

- U.S.-licensed surgeon scientist with active surgical duties at an NCI-designated Cancer Center (P30) or an ISUPS funded by a CPACHE U54 or, a Physician Early Investigator at NCI
- Within the first 1-3 years of academic or PEI appointment and must conduct research on cancer-related basic or translational science
- Must commit a minimum of 6 person-months (50% full-time professional effort) to the ESSP award
- Current and/or former PDs/PIs on any NIH awards are not eligible ESSP Participant candidates, with the following **exceptions**: PD/PIs of NIH Fellowships, PD/PIs of Loan Repayment Program (LRP) awards, and individuals appointed to institutional T programs (T32)

Nomination

- The ESSP Participant candidate must be nominated by the Center Director (Principal Investigator (PI) of the P30 CCSG or PI of the U54 CPACHE) based on the candidate's qualifications, interests, accomplishments, motivation and plans to pursue a career as a surgeon scientist with a focus on cancer-related research.

Number of Applications

- Only one submission per year per NCI-designated Cancer Center made through the PI of the P30 is permitted (consortium centers may submit only one application) and one submission per year per CPACHE program made through the PI of the U54 is permitted.
- The NCI-designated Cancer Center must apply for a P30 administrative supplement; the CPACHE ISUPS must apply for a U54 administrative supplement.
- Only one submission per intramural NCI Branch each year

Allowable costs

- Salary of the ESSP Participant candidate must commit a minimum of 6 person months effort
- Support for research personnel
- Research consumables and career development for the ESSP Participant
- Travel budget for ESSP Participant candidate only, up to \$2,000 per year

Body of the Application

- NIH Biosketch of ESSP Participant candidate and mentors
- Candidate Section
 - Career Goals and Objectives*
 - Coursework and Professional Development Plan*
- Mentor Section
 - Plans and Statements of Mentor and Co-mentor(s)*
- Specific Aims page
- Research Plan
- Budget

Letters of Support

- Letter from the Chair of Surgery or Branch Chief outlining the details of financial support and mechanisms to assure at least 50% protected time for research training and career development, candidate-specific goals, and curriculum for the ESSP Participant
- Letter from the P30 or U54 Center Director
- Letter from mentor(s)

Reporting Requirements

- A progress report for the ESSP supplement must be included as a separately labeled section in the annual progress report for the P30 or U54 Center for any reporting period for which ESSP supplemental funds are received.

Review and Selection Process

- NCI will conduct administrative reviews of applications and support the most meritorious applications submitted for consideration.
- ESSP Participants will be chosen based on candidate and mentor qualifications and institutional research environment.

Structure of a Grant Application

Specific Aims

Candidate

Mentor

Research Plan

- Significance
- Innovation
- Approach

Structure of a Grant Application

Specific Aims

Candidate

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Research Strategy

- Significance
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- Approach

- The **most important page** in the grant – the only page that non-assigned reviewers may read
- Written for a scientist
- Uses short declarative sentences
- Does not include references, jargon or acronyms
- Clearly states the hypothesis
- Ensures that the aims **test** the hypothesis
- Is not be technology driven
- Elements are interdependent, not dependent

Structure of a Grant Application

Specific Aims

Candidate

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Research Strategy

- Significance
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- Has one to two paragraphs of introduction
- Funnels concept to the hypothesis
- “Sprinkles in” a little preliminary data
- Clearly states the hypothesis and aims
- Includes rationale and/or research design
- Ask yourself:
 - Is the hypothesis functional (mechanistic) or descriptive?
 - Do the aims test the hypothesis?
 - Is the project doable within the funding timeframe (overly ambitious)?

Structure of a Grant Application

Specific Aims

Candidate

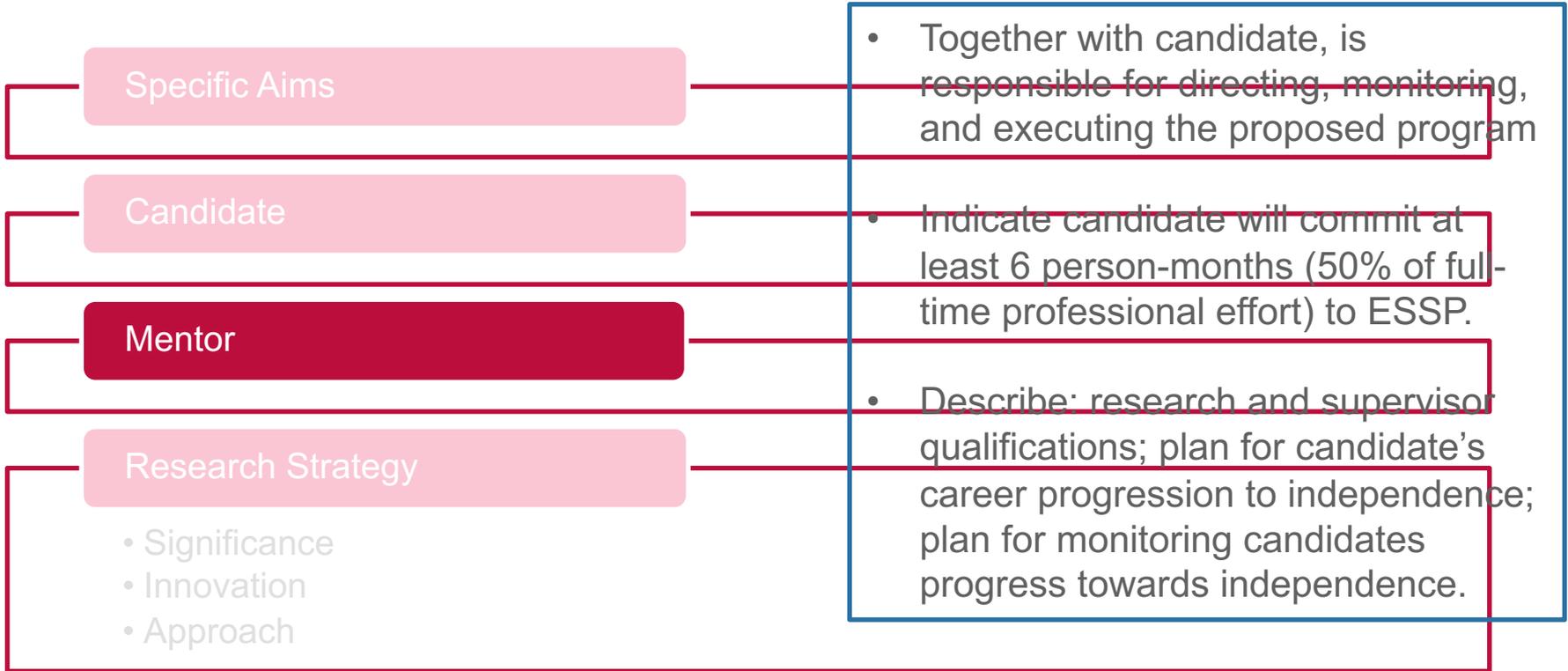
Mentor

Research Strategy

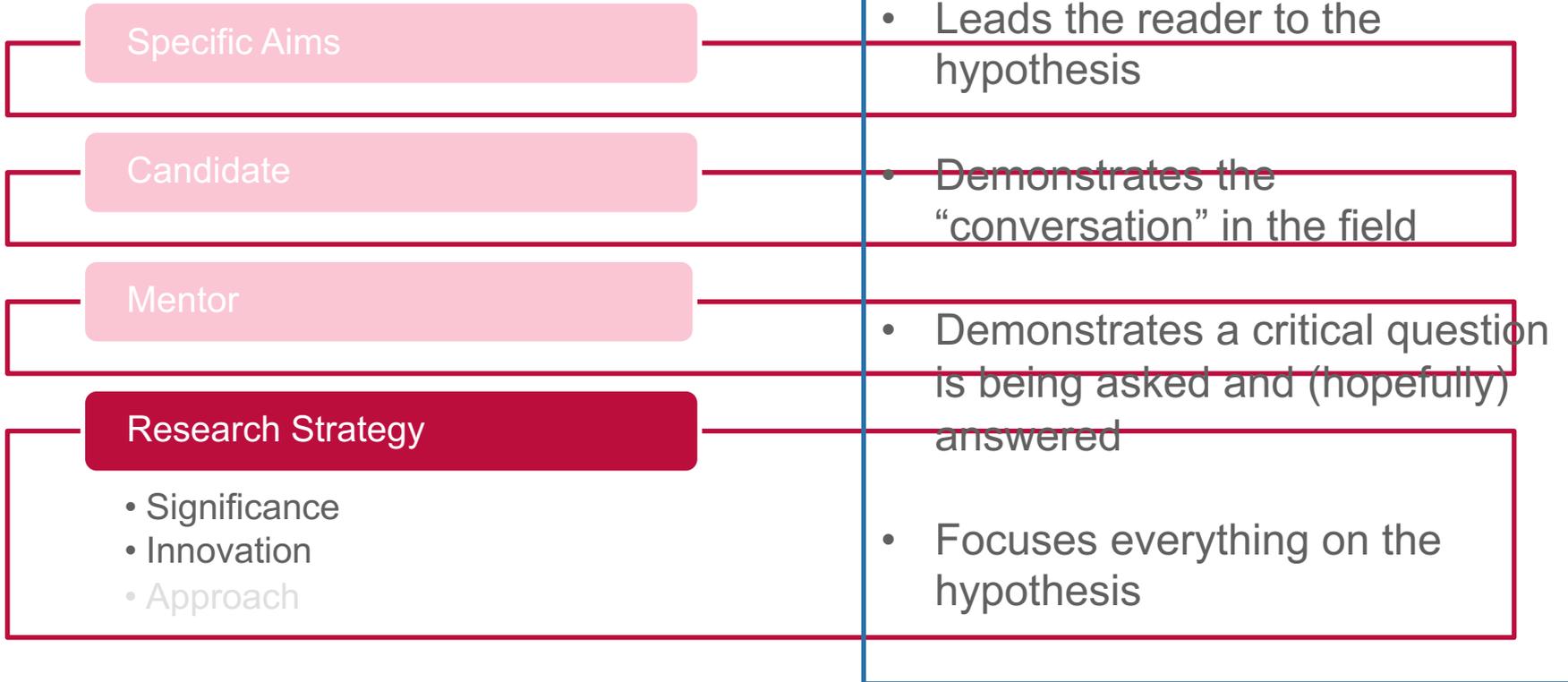
- Significance
- Innovation
- Approach

- Tell the story of your training path, and goals
- Focus on the “why” not the “what” you did
- Include information not in biosketch
- Put your best self forward
- Prepare a “Training Program”
 - Select mentors and/or an advisory committee
 - Self identify deficiencies in your training & address with workshops and courses
 - Use the grant to augment your training
 - Indicate how the grant will maximize your chances of becoming an independent investigator

Structure of a Grant Application



Structure of a Grant Application



Structure of a Grant Application

Specific Aims

Candidate

Mentor

Research Strategy

- Significance
- Innovation
- Approach

- Demonstrates ability perform work
- Shows PI's contribution to work
- Shows feasibility of experiments
- Can be structured relative to each aim
- Must be "doable" in requested period of funding
- If studies are an extension of current project, can you take the work with you?
- Is hypothesis-based, not tech driven
- Is innovative and feasible - if very innovative, MUST have preliminary data to show it is feasible
- Is NOT descriptive or a "fishing expedition"
- Is FOCUSED and not a multi-aim proposal to conquer the world
- Includes controls
- Includes a section on statistics
- Discusses potential pitfalls and proposes alternatives

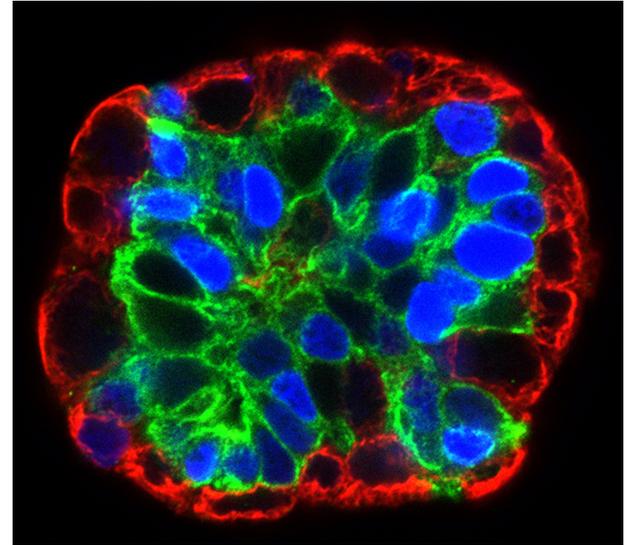
Flaws that are often Fatal

Big Picture

- Lacks relevant significance
- Not innovative
- Not hypothesis-driven
- Poorly written

Experimental Approach

- Overly ambitious ...
- ... Too narrow
- Dependence of one aim on another
- Lacks preliminary data & demonstrated reagents
- Lacks sufficient detail and statistical analyses
- Lacks anticipated results and alternative strategies



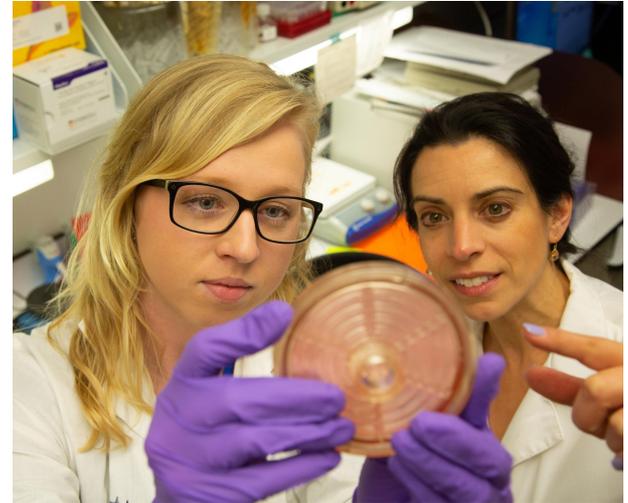
Common Issues that Limit Enthusiasm from Reviewers

Training plan is too generic:

- If you can put someone else's name in the training plan then it is not specific to the applicant
- The more detail the better (who, what, where, when)

Reference letters not glowing:

- Hint: All letters need to be "outstanding"
- Strategize with your sponsor concerning letters
- Ask people who know you, know your work and who are positive people and good writers



Scientific/Research Contacts

For Cancer Centers:

- The Program Director for the P30 CCSG Award, NCI
Telephone: 240-276-5000

For CPACHE Centers:

- The Program Director for the U54 CPACHE Award, NCI
Telephone: 240-276-6170

For General Inquiries:

- ESSP Program Officer, NCI
Email: ncicct@nih.gov

Financial/Grants Management Contact

- Crystal Wolfrey

Office of Grants Administration (OGA), NCI

Telephone: 240-276-6277; email: crystal.wolfrey@nih.gov

Questions?