Developing a Successful Career Development Award

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Key Components

- Candidate
- Career development plan
- Research plan
- Mentor’s statement
- Environment and institutional commitment
Identifying a Mentor

• has achieved national recognition for his/her research
• track record of mentoring other successful early-stage investigators
• provides timely feedback on manuscripts and grants
• promotes trainee’s national reputation
• allows trainee to take credit for his/her successes
Candidate

- Demonstrate your commitment to a research career
  - discuss your career goals
- Provide evidence of your potential to develop into independent investigator
  - highlight your accomplishments
- Usually must commit at least 50% - 80% effort to research program and training
- Often includes letters of recommendation addressing your potential for a research career
Example of Career Goals

• The applicant's long-term goal is to develop a career as an independent investigator in aging research with a primary focus on ...

• His immediate goals are:
  – to study care fragmentation in older patients who receive care in multiple settings
  – to obtain additional methodologic expertise with formal coursework
  – to participate in a team research environment, learning all aspects of health services research in aging
Career Development Plan

• Didactic training
  – typically decreases over time
• Supervised research experience
  – typically increases over time with transition to independence
• Tailored to needs of individual candidate and concordant with career goals and prior experience
• Advanced degree is a means to an end
Career Development Plan

- Describe “x”-year training program
  - be specific
  - plan to acquire new skills/techniques
- Outline a plan in which you assume increasing independence
  - publications and future grant submissions
- Provide time-line and break-down of effort
  - be ambitious, but realistic
Research Plan

• Specific Aims
• Research Strategy
  – Significance
  – Innovation
  – Approach, including Preliminary Results
Specific Aims

• Should clearly articulate what you are trying to accomplish and why
• Subsequent sections must flow logically
• Highlight gap in knowledge
• Provide overall objective, followed by more narrowly focused primary and secondary aims
• Include at least one testable hypothesis
• Define critical terms
Significance

• Describe scope and significance of study problem
• Review relevant literature, highlighting potential gaps and limitations of prior research
• Link each subsection to the proposed research
• When applicable, include published reports of potential reviewers
• Present conceptual model
Conceptual Model for Bathing Disability

Intrinsic Risk Factors
- Modifiable
- Non-modifiable

Environmental Impediments

Specific Aim 2

Disability in Bathing

Specific Aim 3

Specific Aim 1

Home Aide Services
Nursing Home Admissions
Quality of Life
Death
Innovation

- Does application challenge or seek to shift current research or clinical practice paradigms?
- Are novel concepts/approaches/methods/instrumentation/interventions employed?
- Do not simply reiterate the significance
Approach

- Describes plan to accomplish the specific aims of proposed research
- Provide information
  - research design
  - study population
  - data collection procedures and instruments
  - key variables
  - analytic plan, including sample size and power calculations
Approach

• Justify all important decisions
• Consult biostatistician for complicated analyses
• Highlight scientific rigor (quality of data, including reliability and validity) and generalizability of anticipated findings
• Include detailed timeline, denoting projected start and completion of important study tasks
  – should not be unrealistic or overly ambitious
Preliminary Results

- Describe published and unpublished studies
  - establishes competence and experience in relevant content area
  - demonstrates capacity to successfully complete research project and present results in clear and thoughtful manner
- May describe relevant work completed by mentor or important collaborator
- Indicate relevance to proposed research
Mentor’s Statement

• Mentor's qualifications and areas of expertise
• Nature and extent of planned supervision/mentoring
• Primary mentor
  – captain of the ship
• Other mentors
  – content, methods, career development
Environment and Institutional Commitment

- Document strong, well-established research and training program
- Letter from Department Chair or equivalent
  - commitment to candidate's development into independent investigator
  - assurance that candidate will have sufficient protected time for training and research
  - faculty appointment is not contingent on receipt of award
  - availability of adequate resources, e.g. office, lab, administrative support, etc.
Optimizing Success

- Allow sufficient time, e.g. 6 months
  - revise, revise, revise
  - get feedback from colleagues, mentor
  - do not submit prematurely
  - allow time for Grants & Contracts

- Be hypothesis-driven

- Clearly state what impact your work will have on a field

- Don’t be overly ambitious
Optimizing Success

• **Always** include preliminary data
• **Be** considerate of reviewers
  – use readable fonts and leave some white space
  – minimize abbreviations
• **Convey** your excitement and enthusiasm
• **Discuss** data interpretation and alternative hypotheses
Optimizing Success

• Ask a successfully funded researcher to critique your grant proposal before you submit it

• Be organized
  – use headings and diagrams to help reviewers get oriented

• Call program officer (NIH)

• Don’t be discouraged by rejection
Optimizing Success

• Proposal should be easy to read and understand
  – logical, clear, internally consistent
  – cross-reference

• Repeat same information, ideas or themes in consistent way throughout proposal
  – have section in methods for each specific aim
  – repeat the aim verbatim at beginning of that section
Optimizing Success

• Neatness counts
  – avoid misspellings, grammar errors, and mistakes in references
• Obtain copies of successful grants
• Read instructions carefully
Useful Resource