

# **Developing a Successful Career Development Award**

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 **@MrDisability**

# **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



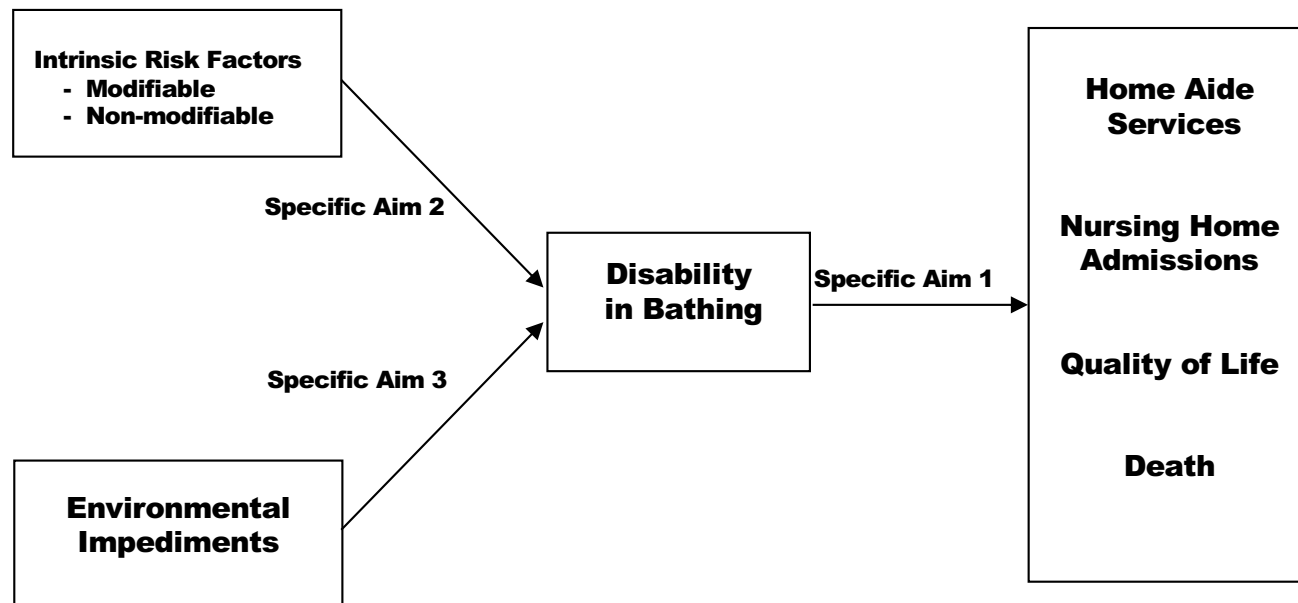
- **Should clearly articulate what you are trying to accomplish and why**
- **Subsequent sections must flow logically**
- **Highlight gap in knowledge**
- **Provide overall objective, followed by more narrowly focused primary and secondary aims**
- **Include at least one testable hypothesis**
- **Define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



# 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



- **Gill TM, McDermott MM, Ibrahim SA, Petersen LA, Doebbeling BN. Getting funded. Career development awards for aspiring clinical investigators. J Gen Intern Med 2004; 19: 472-478**