Physician scientist
BRIDGE TO K (B2K) program

Vinita Bharat, Ph.D.
Assistant Director, Science Communication & RD Training
Office of Pediatric Research Development
Agenda

• Overview of Physician Scientist B2K program
• Why apply for the B2k program?
• Who should apply?
• When to apply?
• How to apply?
• Q&A
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Overview of B2K program

NIH K or equivalent!

1st year 2nd year 3rd year

Fellows

Academic Faculty
BRIDGE TO K

Provides physician scientists financial support and career development mentorship to bridge the years between fellowship training and an academic faculty position.

Funding for up to 3 years as an Instructor with 75% protected time for research.

Participants must submit an application for an NIH K Award or equivalent.
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Why apply for B2K program?

MENTORSHIP & CAREER DEVELOPMENT
- Monthly B2K meetings
- Chalk talks, job talks, research seminars

PEER SUPPORT
Community of junior physician scientists from diverse specialties and research backgrounds

FINANCIAL SUPPORT
- Department/Division funding to protect 75% of your salary for up to 3 years
- Note: if on individual/institutional K award, also able to get up to $50k from MCHRI/dept
BUDGET SCENARIO 1
FELLOW RECEIVES B2K

<table>
<thead>
<tr>
<th>Appointment</th>
<th>Annual Salary</th>
<th>B2K Support (.75 FTE)</th>
<th>Clinical RVUs (.25 FTE)</th>
</tr>
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<tbody>
<tr>
<td>Y1 Instructor</td>
<td>$146,000</td>
<td>$110,960</td>
<td>$35,040</td>
</tr>
<tr>
<td>Y2 Instructor</td>
<td>$146,000</td>
<td>$110,960</td>
<td>$35,040</td>
</tr>
<tr>
<td>Y3 Instructor</td>
<td>$146,000</td>
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Scholars in the B2K program spend 75% time on research and 25% time in clinical practice

Why apply for B2K program?
## BUDGET SCENARIO 2

**FELLOW RECEIVES F32 IN 3RD YEAR & B2K**

<table>
<thead>
<tr>
<th>Appointment</th>
<th>Annual Salary</th>
<th>F32 Stipend</th>
<th>B2K Support (0.75 FTE)</th>
<th>Clinical RVUs (0.25 FTE)</th>
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</thead>
<tbody>
<tr>
<td>Y1 75% Postdoctoral Scholar + 25% Clinical Scholar</td>
<td>$146,000</td>
<td>$63,852</td>
<td>$47,108</td>
<td>$35,040</td>
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<tr>
<td>Y2 75% Postdoctoral Scholar + 25% Clinical Scholar</td>
<td>$146,000</td>
<td>$66,228</td>
<td>$44,732</td>
<td>$35,040</td>
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<tr>
<td>Y3 75% Postdoctoral Scholar + 25% Clinical Scholar</td>
<td>$146,000</td>
<td>$68,604</td>
<td>$42,356</td>
<td>$35,040</td>
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*Scholars in the B2K program spend 75% time on research and 25% time in clinical practice*

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**Why apply for B2K program?**
Who should apply for B2K program?

ELIGIBILITY

- Must possess an MD, DO, or MD/PhD
- Must be either a:
  - Fellow in their terminal year of fellowship.
  - Postdoctoral Scholar + Clinical Scholar pursuing one additional year of training after fellowship.
  - Instructor in the first year of their appointment after fellowship.
  - Fellows who receive F32 awards can still apply for the Bridge to K Program in their 3rd year.
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APPLICATION DEADLINE: October 2, 2023

NOTIFICATION OF DECISION: November 2023

Award starts in July 2024

Upto 3 years (2024-27)

When to apply for B2K program?
BRIDGE TO K

- A single PDF containing the five (six if needed) components should be submitted via the Application Webform.

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<tr>
<td>1. Research Strategy</td>
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<tr>
<td>3. Applicant NIH Non-Fellowship Biosketch</td>
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<tr>
<td>4. Nomination Letter from the Division Chief</td>
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<td>5. Mentor Information</td>
</tr>
<tr>
<td>6. Appendix: abstracts related to your proposed project or any completed manuscripts that have not yet been published</td>
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* For Pediatric Scientist Development Program (PSDP) fellows, submit your recent PSDP progress report (Fall 2023) and original PSDP application

How to apply for B2K program?
Evaluation criteria

• **Application evaluation**: Applications will be reviewed by all members of the B2K Review Committee

• **Interviews**:
  - Each applicant will be interviewed by two members of the review committee
  - The study section will meet after completion of the interviews to determine final ranking of applicants based on composite scores from the application review and interview
How to apply for B2K program?

**Review Criteria** (Adapted from the NIH’s K Award Scored Review Criteria)

**Candidate**
- Does the candidate have the potential to develop as an **independent** and **productive physician scientist**?
- Are the candidate’s prior training and research experience appropriate for the Bridge to K program?
- Is there evidence of the candidate’s commitment to **become an independent investigator in research**?

**Career Development Plan / Career Goals and Objectives**
- What is the likelihood that the plan will contribute to the scientific development of the candidate?
- Will support from the Bridge to K program enable the candidate to obtain extramural career development grants, such as NIH K Awards or other similar foundation grants, and lead to **scientific independence for the candidate**?

**Research Plan**
- Are the proposed research questions, design, methodology of significant scientific and technical merit?
- Is the prior research that serves as the key support for the proposed project rigorous?
- Is the research plan appropriate to the candidate’s stage of research development and as a vehicle for developing the research skills described in the career development plan?

**Mentor(s)**
- Are the qualifications of the mentor(s) in the area of the proposed research appropriate?
- Is their adequate description of the quality and extent of the mentor’s proposed role in providing guidance and advice to the candidate?
- Does the mentor(s) adequately address the candidate’s potential and his/her strengths and areas needing improvement?
- Is there evidence of the mentors’ previous experience in fostering the development of **independent investigators**?
- Is there evidence of the mentor’s current research productivity and funding support?
- Is the environment for scientific and professional development of the candidate of high quality?
## Application components

<table>
<thead>
<tr>
<th>Documents needed</th>
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<tbody>
<tr>
<td>Research Strategy</td>
<td>4</td>
</tr>
<tr>
<td>Applicant’s Career Development Plan</td>
<td>3</td>
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<tr>
<td>Applicant NIH Non-Fellowship Biosketch</td>
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**Core Document** – Needs time and several rounds of iterative feedback

**Letters or Other Supporting Documents** - Information needed from mentors or Others

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**How to apply for B2K program?**
Description of a 3-year proposed scientific project that includes:

- Specific Aims (~ 0.5-1 page)
- Background (~ 1 page)
- Experimental Approach (~ 2 pages)
- Plans for developing NIH K grant or equivalent Career Development Award, including planned dates of submission (~0.5 page)
Why is the question important?
What specifically will be done?
What is the overall goal?
What is the expected payoff?

Specific Aims Resources

- NIH Application Guide (SF424)
- The Grant Application Writer’s Workbook – NIH (two chapters about Specific Aims)
- The Anatomy of a Specific Aims Page
- Dr. Crystal Botham’s Video on Writing Specific Aims
- Drafting Specific Aims (NIAID)
- Specific Aims Tips from The Science Grant
- All About the NIH K Award Workbook (Chapter 8)

How to apply for B2K program?
RESEARCH STRATEGY: BACKGROUND

SIGNIFICANCE

Why the research is important?

• **Introduce the problem**
  - Build it from the SPECIFIC AIMS section.
  - Evaluate the rigor of prior research,
  - Incorporate data

• **State why the proposed research is significant**
  - Use a phrase like, “The proposed research is significant because…”

• **Define the return on investing in your proposal**
  - Articulate broad significance
  - Describe impact to human health

How to apply for B2K program?
For each Specific aim:

- **Rationale**: Introduce the aim
- **Preliminary Data**: Yours or published to show why you are the perfect candidate to conduct the aim
- **Methods**: How will you test your hypotheses?
- **Expected Outcomes**: What will happen once you achieve your aim
- **Alternative Approaches**: Point out any possible issues and how you would resolve them, should they occur

How to apply for B2K program?
Plans for developing an NIH K grant or equivalent

Includes two parts:

- A narrative summarizing how will the B2K help my K application?
- A timeline

<table>
<thead>
<tr>
<th>Aim 1</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
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<tbody>
<tr>
<td>Aim 2</td>
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<td>Publications</td>
<td>Methods Paper</td>
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RESOURCES

• The Grant Application Writer’s Workbook – NIH
• National Institute of Allergy and Infectious Diseases (NIAID) - Write Your Research Plan
• Dr. Sky Brubaker’s Video on Communicating your Research Strategy
• NIH Application Guide (SF424)
• All About the NIH K Award Workbook (Chapter 12)
A personal statement developed with the Mentor and Division Chief describing:

- Candidate’s background ~1 page
- Career goals and objectives ~0.5 page
- Career development plan ~1.5 pages

**How to apply for B2K program?**
Candidate’s background

A memorable narrative

• Chronological
• A unique personal connection to your specific area of research
• Highlights
• End this section with a short statement about your needs

How to apply for B2K program?
RESOURCES

- NIH Application Guide (SF424)
- Criteria and Considerations for K Critiques
- How to Design a Winning Fellowship Proposal
- How to get a K award: It’s not just about the science
- K Award Kiosk
- All About Grants Podcasts - Using Career Development Awards to Achieve Independence (June 21, 2010)
- All About the NIH K Award Workbook (Chapter 10)
Applicant’s biosketch (non-fellowship)

Building Blocks for the Personal Statement

Describe your goals and motivation

Highlight your academic history

Elaborate how will the B2K help your K application

Contributions to Science Section

A description of up to five of your most significant contributions to science

Each contribution should be no longer than one half page, including citations

2-3 contributions are common for postdocs / clinical fellows

Categories of contribution can be career phases, scientific impact and clinical orientation

How to apply for B2K program?
RESOURCES

• NIH Biosketch Information and Forms
• Interim Research Products
• PMCID Citations
• MyBibliography
• All About the NIH K Award Workbook (Chapter 9)
• Writing the NIH Biosketch - Recording & Slides

How to apply for B2K program?
## Application components

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**How to apply for B2K program?**
• Provide their assessment of the candidate’s research accomplishments to date, strength and impact of the proposed study, and potential for developing a career as an independent investigator.

• Agree to ensure that the candidate will receive 75% protected time from clinical duties to devote to research or research career development.

• Describe what role the division will play in providing the candidate with appropriate mentorship, training opportunities, research facilities, and resources to carry out the proposed career development and research plans.

• Confirm their commitment to meet with the candidate at least twice per year, including one joint meeting with Dr. Leonard and the candidate’s primary research mentor.

• For divisions where the salary support for the candidate will be either provided by the division or shared with the Department of Pediatrics (e.g. Cardiology, Neonatology, Critical Care Medicine, and Hematology, Oncology, Stem Cell, Transplantation and Regenerative Medicine). Please confirm a commitment to provide the candidate with this financial support for up to 3 years, provided that the candidate continues to demonstrate sufficient research progress and achieve the benchmarks established during the bi-annual meetings.
Mentor Letter of support

• Start with giving their strongest possible support.
• Mentor’s research qualifications and previous experience as a research supervisor
• Provide evidence of candidate’s potential as an independent and productive researcher.
• Describe the research plan as enabling future independence.
• Career development and training plan
• Conclude with the commitment to the candidate

How to apply for B2K program?
BRIDGE TO K

- Discuss the B2K application and potential training with your division chief and mentors.
- Understand the review criteria of the application and craft your application accordingly.
- Learn about B2K milestones:
  - 1 year apply NIH K or equivalent
  - Attend and participate in B2K meetings
  - Applying for faculty appointment by year 3!

Tips for success: B2K application
THANK YOU and GOOD LUCK! :)  
Please feel free to reach out to anyone of us.