

P20CA202924: NCCU-DUKE Cancer Disparities Translational Research Partnership

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Principal Investigator DCI, Duke



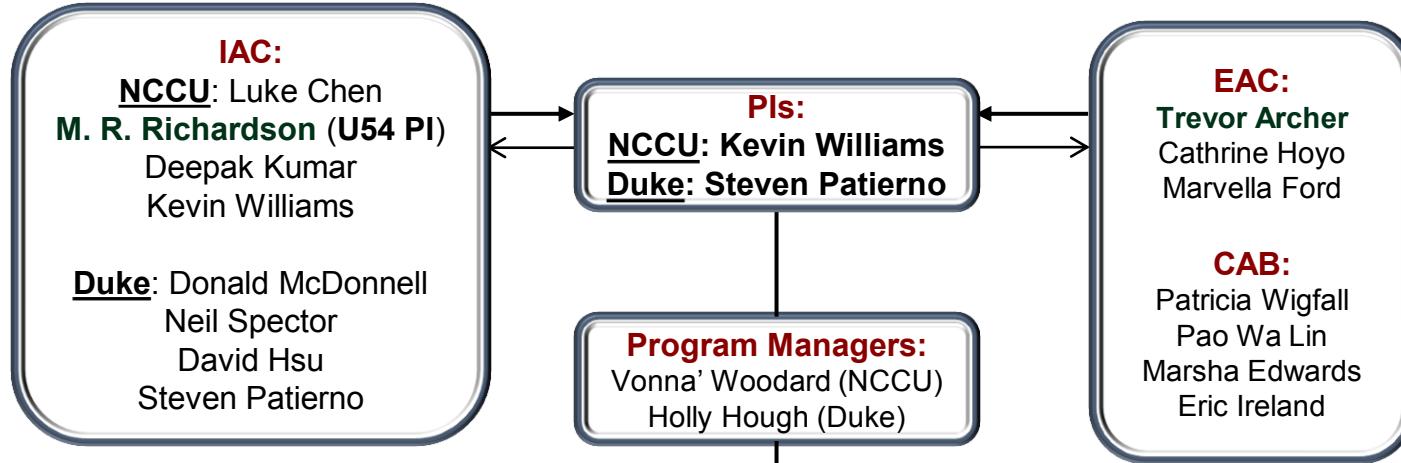
- Admin Core
- Cancer Research Pilot Projects
 - Prostate Cancer
 - Inflammatory Breast Cancer



Cancer Research Education Project (C-REP)

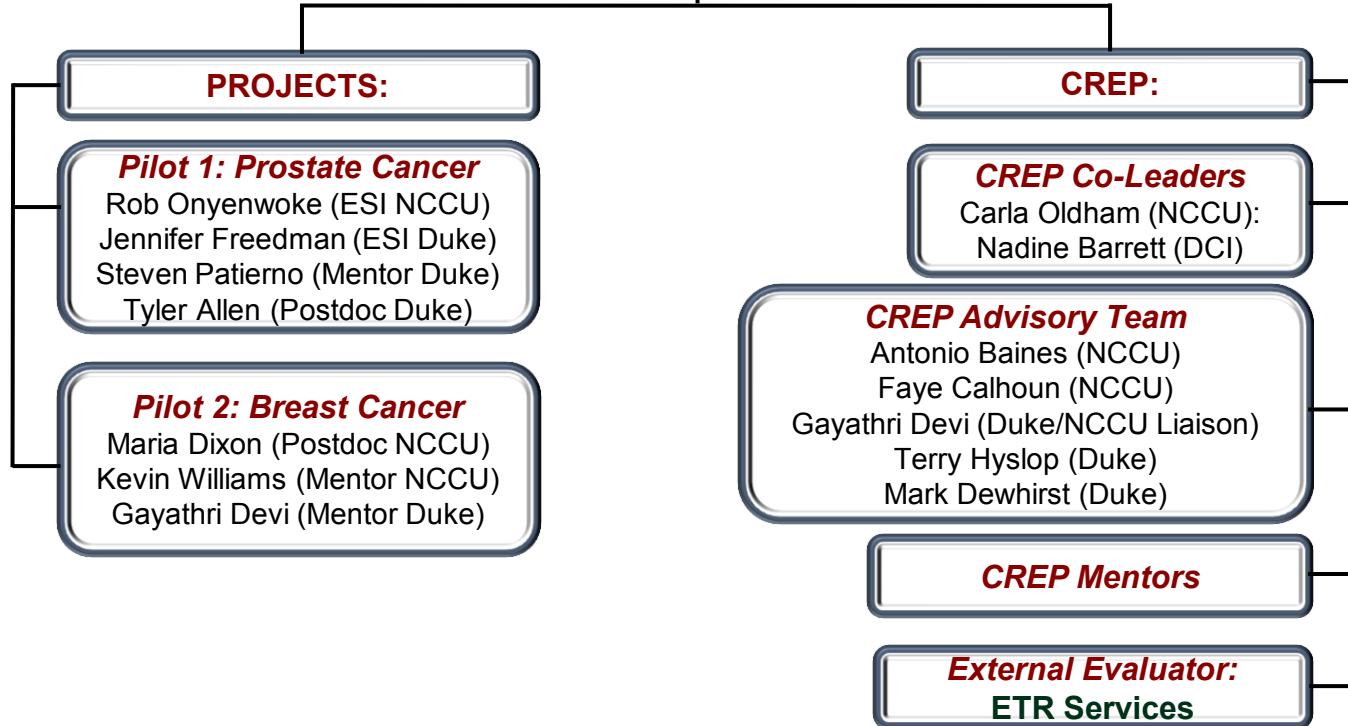


P20 Structure



Trainees
NCCU: 3-6 PhD
Postdoc, Pilot 2
Duke: 3-6 PhD
Postdoc, Pilot 1

C-REP Mentors
NCCU/BRITE: Drs. Scott,
Ibeanu, A. Williams,
Zheng, Li, Onyenwoke,
and K. Williams
Duke/DCI: Drs.
McDonnell, Spector, Hsu,
Counter, Blobe, Dave,
Devi, Freedman, and
Patierno





Cancer Research Education



Program (C-REP):

Navigating Pathways to Success

OBJECTIVE: To provide **translational cancer disparities research training** opportunities for **minority PhD and postdoctoral trainees** to strengthen their **career development** and increase participation in **minority accrual** into clinical trials.

Aim 1:

Provide comprehensive **training in translational cancer disparities research with a Career Development Plan and Grant Writing Training**

Aim 2:

Implement integrated **training in health disparities** to enhance minority trainee's knowledge and **professional skills**

Aim 3:

Increase knowledge and understanding of **clinical trial operations and processes** with a focus on **minority accrual**, community engagement, and outreach

Duke and North Carolina Central Universities
Cancer Research
Education Program
(C-REP)



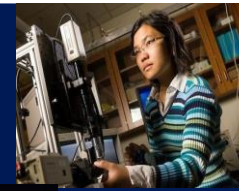
A postdoctoral fellow in Dr. Steven Patierno's laboratory in the Department of Medicine at Duke University.

Fostering careers in cancer disparities research by increasing participation of underrepresented groups in translational science



A program funded by the National Cancer Institute

TRAINING OPPORTUNITY FOR GRADUATE STUDENTS



Cancer Research Education Program (C-REP)

WOULD YOU BENEFIT FROM?

- ✓ Hands-on experience in industry, clinical trials operations, and translational cancer disparities research and community engagement?
- ✓ Enhancing your graduate experience with exposure to translational research, high-throughput screening, and biobanking?
- ✓ Travel funding for two scientific conferences (Health Disparities Conference and another conference of your choice)
- ✓ Additional \$2,000 (\$1,000 for your mentor and \$1,000 for you) per year for two years toward research expenses?
- ✓ Learning skills for career development, networking, and successfully navigating the mentor/mentee relationship?

The C-REP program is a two-year program and partnership between Duke University and North Carolina Central University (NCCU).

Eligibility Requirements

- ◆ Be a 3rd, or 4th year doctoral student at Duke University OR a 2nd, 3rd, or 4th year doctoral student at NCCU
- ◆ Be from a traditionally underrepresented group
- ◆ Commit approximately 10 hours or less per month as a C-REP Scholar
- ◆ Permission of your dissertation mentor/advisor

Broaden your graduate education by exploring the unique world of translational health disparities research.

To apply, contact:

Duke Graduate Students
Holly Hough, PhD: holly.hough@duke.edu
or
NCCU Graduate Students
Vonna Woodard: lwoodar2@nccu.edu



Flyer distributed to every biology-related graduate program at Duke and NCCU, followed by face-to-face meetings with each Graduate Program Director.

Facts to consider...*

There are approximately 14 million cancer patients in the U.S.

Of these, 9% participate in clinical research and trials.

Of these, between 3-5% are from traditionally underrepresented groups.

*Source: National Cancer Institute

Underrepresented populations have limited access to innovative research, are not adequately represented in research workforce or research findings, and therefore impact the capacity to generalize findings to the broader community.

What is C-REP?

The Cancer Research Education Program (C-REP) combines education in addition to, comprehensive training in translational cancer disparities research and career development opportunities to enhance as well as complement a traditional Ph.D. program in the basic sciences.

The program was established in 2016 through the National Cancer Institute (NCI) Center to Reduce Cancer Health Disparities (CRCHD) exploratory or P20 grant.

Through the C-REP, scholars will have the opportunity to address key factors that negatively impact cancer disparities by receiving in-depth training and full immersion experiences including education in the following areas:

- Translational science cancer disparities research
- Roles and careers in clinical research operations
- Understanding and achieving diversity in clinical trials
- Community engagement and outreach

Benefits of Being a C-REP Scholar

- \$2,000 allocation per year for two years toward research expenses (\$1,000 for your mentor and \$1,000 for you)
- Funded travel to scientific meetings annually
- Translational Immersion Experience (TIE) that provides opportunities to train in clinical research operations and high throughput screening
- Workshops on resiliency, career development, grant writing, and mentee/mentor relationships
- Access to unique courses in health disparities, cancer, translational science, global health, and drug discovery at both NCCU and Duke
- Community engagement and outreach

Who is eligible?

- 2nd, 3rd or 4th year PhD candidates from underrepresented groups
- Students currently enrolled in graduate programs at Duke or North Carolina Central Universities

C-REP TRI-FOLD BROCHURE



C-REP Curriculum

	Year 1	Year 2
Semester 1	<ul style="list-style-type: none"> • Doctoral Supervised Research • Orientation • Kick-off Meeting • Professional Networking 	<ul style="list-style-type: none"> • Doctoral Supervised Research • Community Engagement • Professional Networking
Semester 2	<ul style="list-style-type: none"> • Doctoral Supervised Research • Professional Networking • Community Engagement 	<ul style="list-style-type: none"> • Doctoral Supervised Research • Minority Accrual • Community Engagement • Professional Networking
Summer	<ul style="list-style-type: none"> • Doctoral Supervised Research • Translational Immersion Experience (TIE) 	<ul style="list-style-type: none"> • Doctoral Supervised Research • Attend a national conference • Translational Immersion Experience (TIE)

Evaluation by ETR (Before, During, & After)



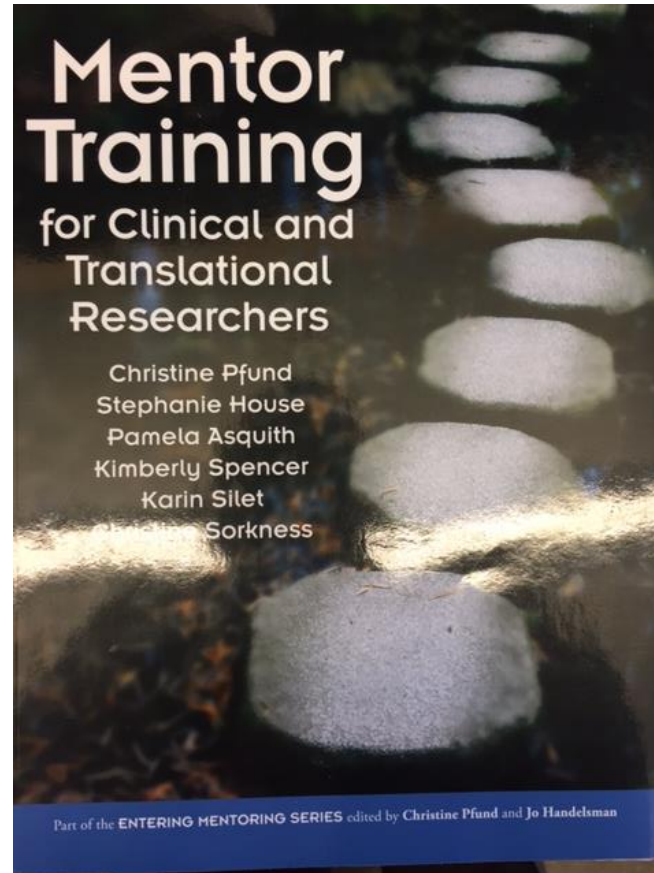
C-REP Career Development Activities

1. C-REP Kick-off/Orientation – mentors, mentees, advisory council, and Pis
- 2. *Enhance the Mentoring Experience – A Training Program***
 - a. Interactive training program for both for the Mentor and Mentee
- 3. Duke Mentor App**
4. Bi-annual Meetings with C-REP mentor team
5. Community Engagement/Outreach (Men’s Health Initiative & Women’s Health Day)
- 6. *Translational Immersion Experience (TIE):***
 1. (Clinical Immersion; Regulatory Immersion; High Throughput Screening; New Protocol Development; Clinical Operations; Tissue Collection; Research Tour; P20 Lab Meeting)
- 7. Pathway to Independence and K-Club**

Key Resources



Mentor Duke App



Establishing Expectations

Maintaining Effective Communication

Assessing Understanding

Fostering Independence

Addressing Diversity

Dealing with Ethics

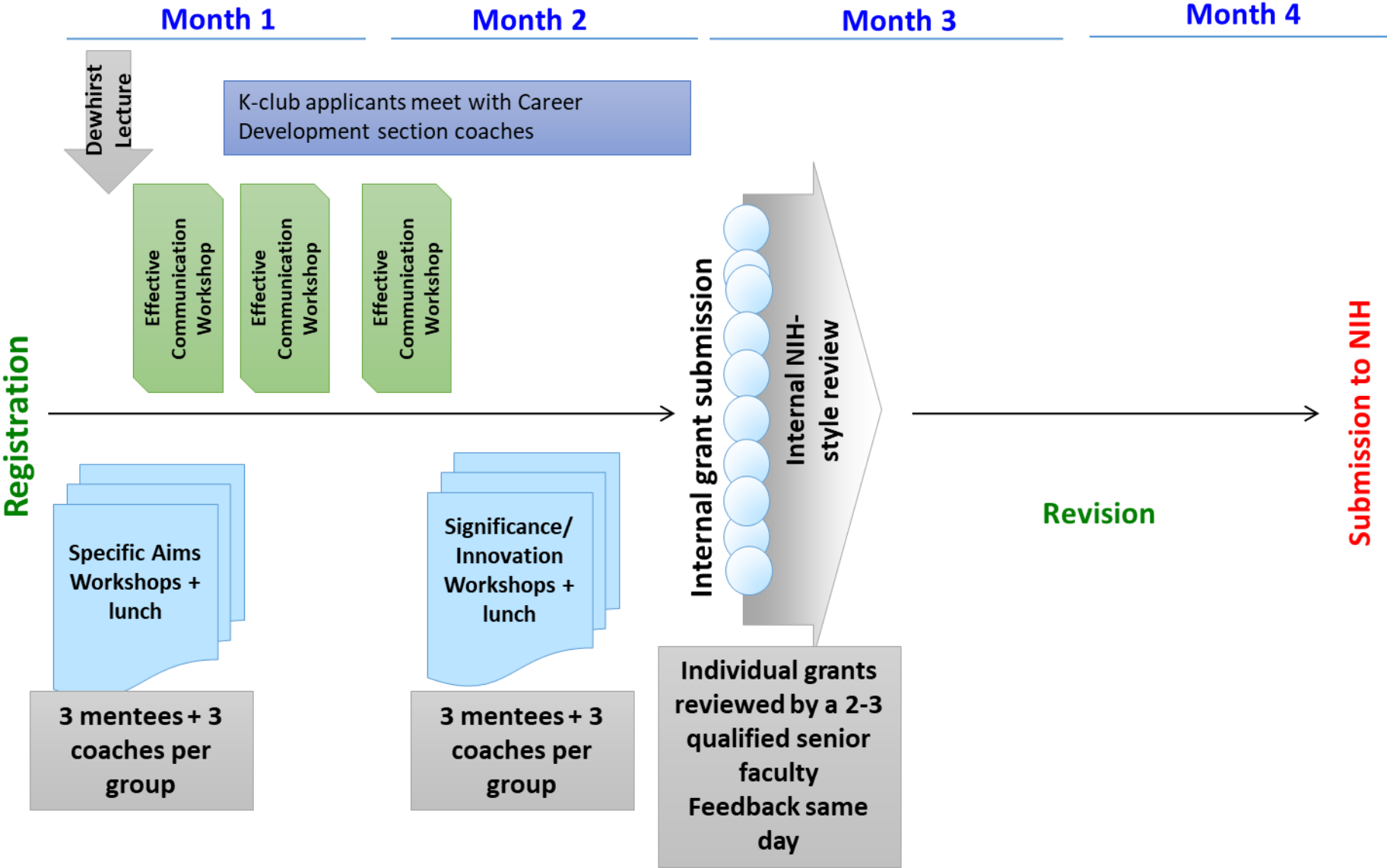
U. Wisconsin Mentor Training Program

Duke K-Club and Pathway to Independence

Critical Thinking – Hypothesis generation - Grant Writing

- 1. K-Club (postdocs and ESIs)**
- 2. Pathway to Independence (ESIs)**

Overview of the Duke Path to Independence Program and K-Club



Expectations for K-Club and Pathway to Independence Scholars

Mentees

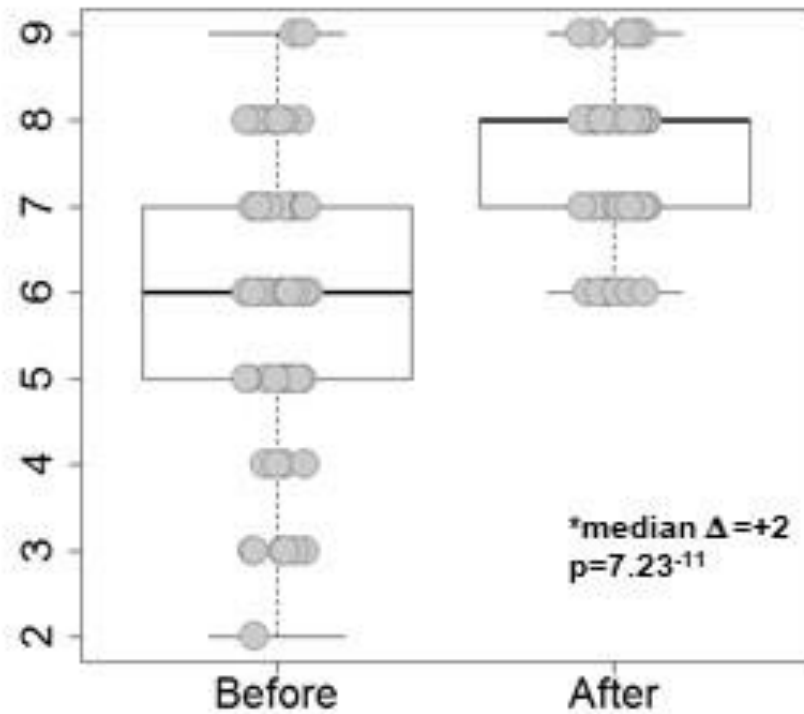
- Attendance at all meetings
- Bring most up-to-date documents to workshops
- Target grant submission deadline for internal review is set at the initiation of the program.
 - This is not negotiable
- Expect constructive criticism

Program

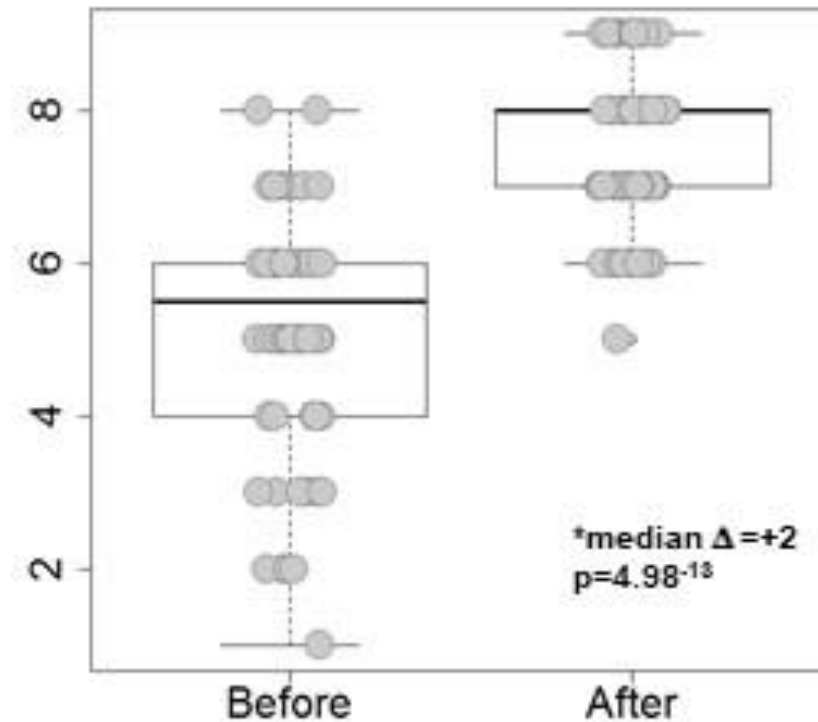
- Keep communications active and open
- Remind participants and coaches to attend at their appointed times
- Provide multidisciplinary feedback on clarity and scientific value of proposed study

Perceived Competence Survey Results from Participants

Designing a research plan



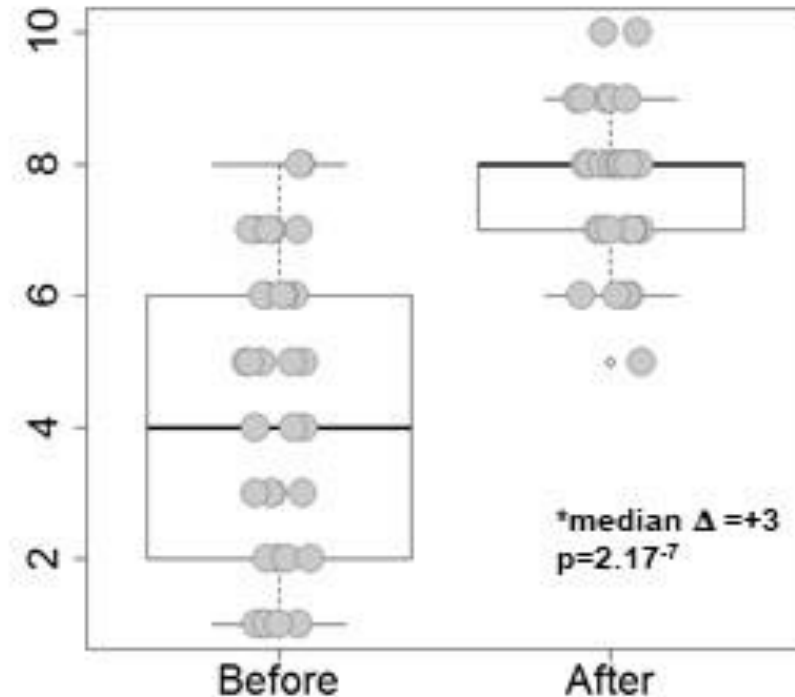
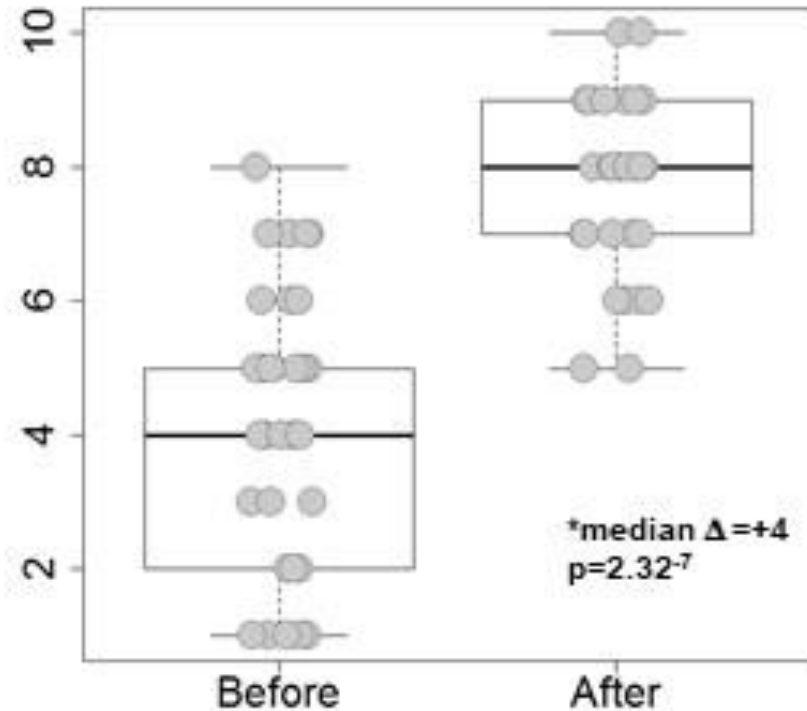
Communicating your research plan



Perceived Competence Survey Results from Participants

Developing a career development plan

Communicating a career development plan

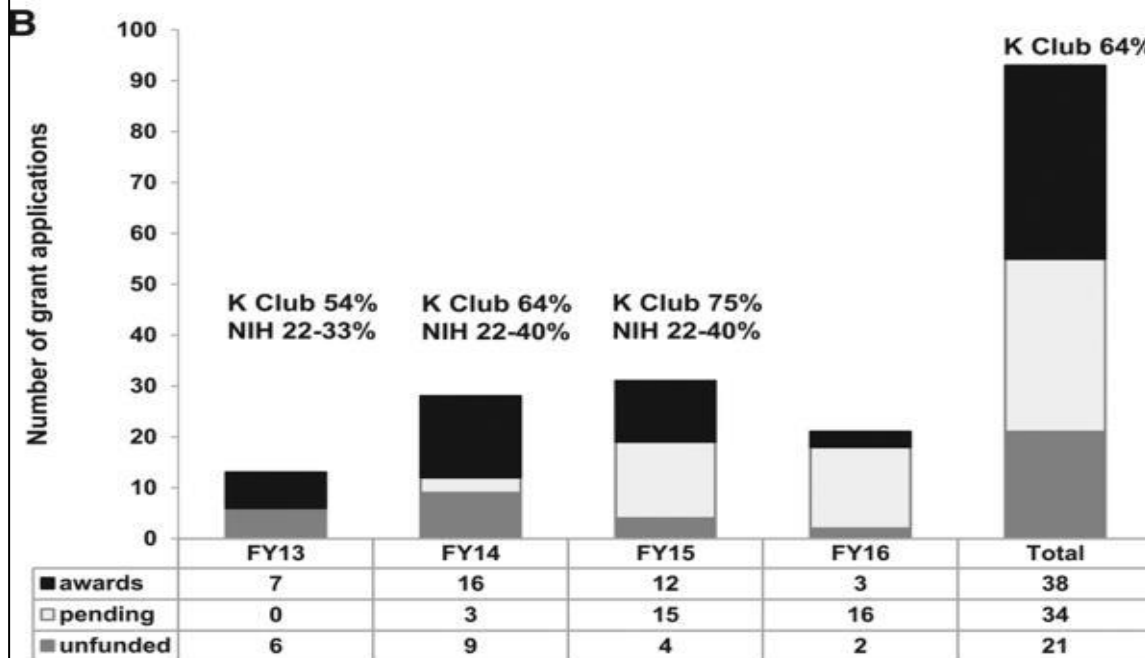
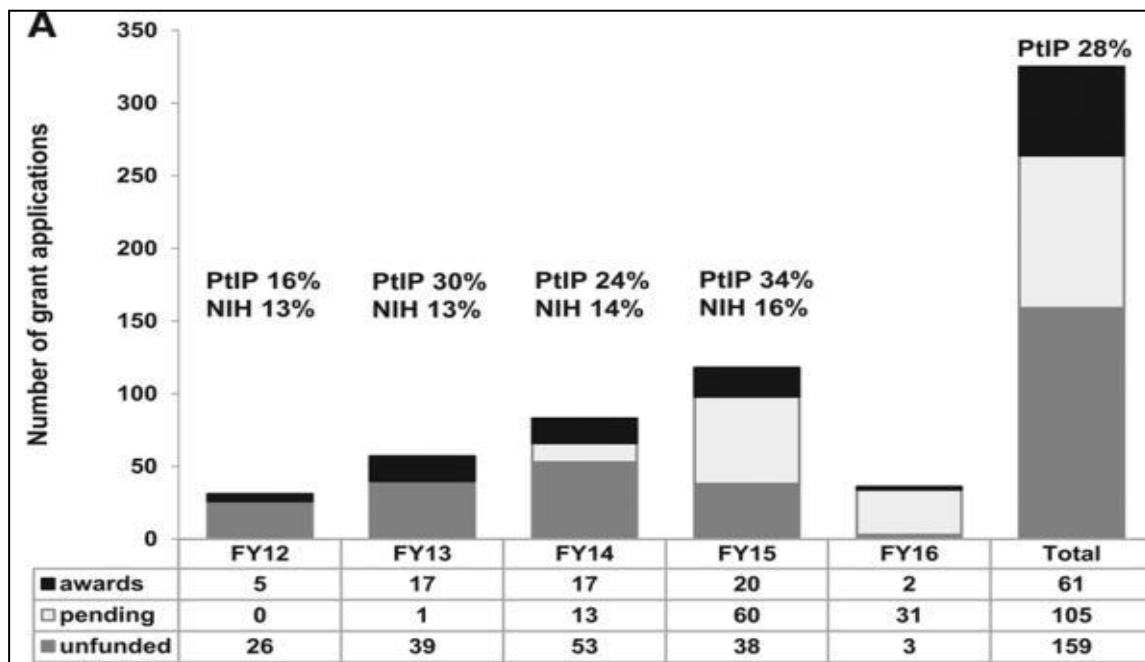


Grant Success Rates

Path to Independence (PtIP) K Club

Duke University, October 2011 (FY 2012)-
March 2016 (FY 2016).

Numbers of awarded grants, unfunded grants, and applications still pending are shown for the Path to Independence Program participants (panel A) and the K Club participants (panel B).



Return on Investment

Supplemental Table 3: Return on Investment

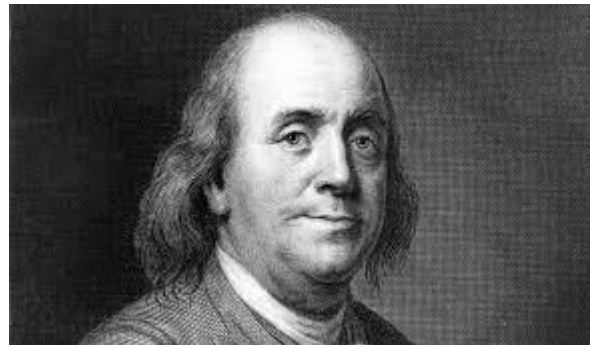
FTE	2.9
Annual budget (personnel and operations)	\$285,000
4 year total	\$1,140,000

	Directs	Indirects	Total
<i>Path to Independence Program NIH</i>	\$49,455,435	\$21,603,453	\$71,058,888
<i>Path to Independence Program non-NIH</i>	\$17,142,208	\$4,279,916	\$21,422,124
<i>K club NIH</i>	\$17,019,996	\$3,264,721	\$20,284,717
<i>K club non-NIH</i>	\$8,200,262	\$1,022,359	\$9,222,621
<i>Total</i>	\$91,817,901	\$30,170,449	\$121,988,350

Tell me and I forget.

Teach me and I remember.

Involve me and I learn.



Benjamin Franklin