

An Evaluation of
Emory University School of Medicine &
Children's Healthcare of Atlanta's
K-Club Program
2017

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Table of Contents

Acknowledgements.....	3
Executive Summary	4
Table 1. Summary Findings & Recommendations	4
Background.....	6
Logic Model.....	7
Approach.....	9
Table 2. Focus Group Participant Demographic & Background Information	10
Findings Overview	11
Table 3. Definitions of Final Themes	11
Figure 2. Overview of Theme Frequencies.....	11
Detailed Theme Descriptions.....	12
Table 4. Frequencies of Themes & Subthemes for All Focus Groups.....	19
Recommendations & Conclusion	20
Recommendations	20
Conclusion	21
References.....	22
Appendices.....	23
Appendix A: Data Collection Instruments & Guide Materials	23
Appendix B. Thematic Codebook.....	31

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Executive Summary

The K-Club program, an early career development resource, was conceived in 2009 with the objective of providing an educational support forum to assist fellows and faculty with successful career development award applications. The K-Club meets monthly during the academic year and covers topics related to the conception, development, submission, and post-award process of career development awards. After several years of successful operations, K-Club leadership recognized a need to extend the scope of the program to further support the needs of attendees. This evaluation aimed to understand the needs of those who seek grant funding, and elicit ideas for program development and expansion.

In spring 2017, three focus groups were conducted with participants stratified by career stage: Group A) Early career- currently seeking first award, Group B) Early/Mid career- with some funding (as defined by having obtained 1-3 extramural awards and actively seeking additional funding in transitioning to independence), and Group C) Senior mentors, faculty mentoring those seeking awards. Evaluators from the Georgia Clinical & Translational Science Alliance (Georgia CTSA) led focus group sessions, each consisting of 8-10 past K-Club attendees. Sessions were audio and video recorded and subsequently transcribed verbatim.

Two coders conducted a thematic analysis of the transcripts utilizing MAXQDA software. Results were analyzed by identifying common themes heard in the three transcripts. Seven broad themes, most with more specific subthemes, were identified and incorporated into a codebook which guided the ensuing analyses. Attendees' comments were coded independently by each coder into themes and subthemes. Aggregated findings were evaluated to form the following recommendations:

Table 1. Summary Findings & Recommendations

Evaluation Finding	Recommended Action Points
Participants are especially interested in engaging with K-Club session material through smaller groups and individualized feedback	<ul style="list-style-type: none">• Create small break-out groups where a mix of junior and senior participants provide feedback for one another• Facilitate simulated grant review workshops• Contract a qualified grant writing professional to extend 1:1 feedback to more individuals
Mentors acknowledged a need and interest in more structured training on effective mentoring. Mentees also believe that mentors need more formal training	<ul style="list-style-type: none">• Develop a mentor toolkit to include career development resources for mentors to relay, and person-management tips and tricks• Offer training workshops designed for mentors
Mentees want more resources and support to position themselves for research funding success	<ul style="list-style-type: none">• Develop a systematic navigation tool that provides a roadmap guiding early career research investigators through career development enhancing awareness of the resources and support relevant and available at each stage of research funds-seeking process.
K-Club participants are interested in more formal grant writing education	<ul style="list-style-type: none">• Develop or provide referral to a formal grant writing curriculum
Re-branding is required to clarify the program's mission and target audience	<ul style="list-style-type: none">• Adjust program name to reflect refinements to the target audience and program objectives

<p>Opportunities exist for enhanced use of technology</p>	<ul style="list-style-type: none"> • Utilize more user-friendly webinar tools to allow for easier access and the ability to better interact including allowing Q&A during K-Club sessions in real time.
<p>Attendees endorsed a multi-pronged approach to ongoing program evaluation</p>	<ul style="list-style-type: none"> • Continue collecting both quantitative and qualitative evaluation data including paper surveys during sessions for a quick evaluation, and email surveys for more in-depth feedback.

Background

Emory University's School of Medicine and Children's Healthcare of Atlanta offer an abundance of resources to help internal faculty, fellows and postdocs secure grant funding. The K-Club program, one of Emory's grant writing resources, was conceived in the fall of 2009 by Dr. Paul Spearman and was executed via the efforts of faculty members Drs. Andi Shane, Miriam Vos and Stacy Heilman. The program is supported by the Georgia Clinical and Translational Science Alliance (Georgia CTSA), Emory's Department of Pediatrics, Emory's Department of Medicine and the Center for AIDS Research.

The objective of the program is to provide an educational forum to assist fellows and faculty with successful career development award applications. The club meets every month of the academic year and covers topics related to the conception, development, submission, and post-award process related to career development awards. The sessions usually consist of an introductory presentation, followed by a panel or group discussion with input and participation by attendees. Recordings are available for remote and future viewing on the program website. The program has had strong attendance, averaging 72 attendees per session in the 2016/2017 year, and has been exceptionally well-received by participants, with 99% of post-session survey respondents stating that the session was 'Good' or 'Excellent', and 86% stating that it was 'Very-' or 'Extremely likely' that they would recommend the session others.

The purpose of this evaluation was to evaluate the best practices of the K-Club structure and brand, and to elicit targeted feedback about the future expansion of the club. The results of this evaluation will inform our understanding of how to improve and expand the K-Club to better meet the needs of early career research investigators.

Evaluation objectives are as follows:

- Understand the needs of junior research investigators seeking career development awards
- Gather programmatic expansion ideas from program stakeholders at the early career- award seeking, early/mid career-funded, and mentor levels
- Create strategic recommendations based on focus group results to inform K-Club program development

Evaluation questions include:

- In what ways can the K-Club improve and expand to increase the career success of Emory University's postdocs, junior faculty and fellows?
- How can the K-Club structure be adjusted to better meet the needs of early career investigators?

Data for this explorative and formative evaluation were collected via a series of focus groups conducted in March and April of 2017. The goal of the focus groups was to understand the needs of faculty, fellows and postdocs who are seeking grant funding and to gather ideas related to the future program expansion and development. The first group consisted of early career faculty seeking their first extramural award. The second group also consisted of early/mid career faculty that *have* received some extramural funding and are actively seeking additional funding in transitioning to independence. The third group consisted of senior-level faculty that have been well-funded over several years and serve as mentors for junior-level faculty.

Logic Model

The following logic model (Figure 1) depicts the inputs, activities, outputs, and outcomes involved in evaluating the K-Club. Stakeholders include the Program Directors, Emory Departments of Pediatrics, School of Medicine, and Rollins School of Public Health leadership, Georgia Clinical and Translational Science Alliance leadership, and K-Club participants. Materials included pre-focus group surveys, incentives for participation, and facilities for conducting, recording and transcribing the focus groups. The outputs that resulted from this evaluation included three sets of data collection tools, focus groups, data, and a report representing evaluation results/findings, conclusions and recommendations. It is hoped that evaluation outcomes will lead to increased career development resources and ultimately funding for early career investigators seeking to establish careers as independent health related researchers.

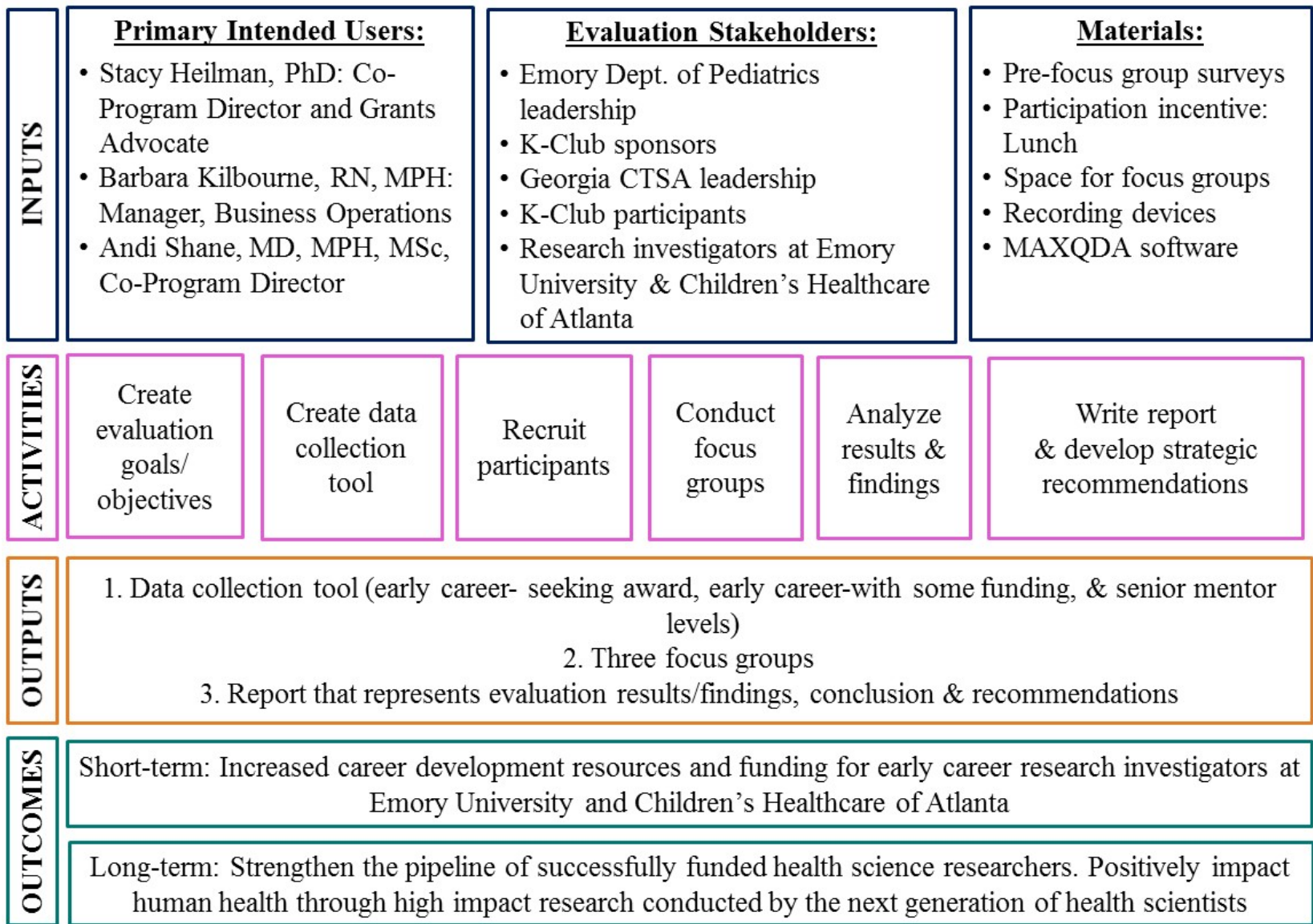


Figure 1. Evaluation Logic Model

Approach

This formative evaluation was conducted in the spring of 2017 at Children's Healthcare of Atlanta Egleston Hospital in Atlanta, GA. The evaluation stakeholders included staff and faculty at Children's Healthcare of Atlanta, Emory Department of Pediatrics, K-Club participants, and Georgia CTSA leadership.

In March and April 2017, Nicole Llewellyn, PhD, and Jamie Adachi, MPH, from the Georgia CTSA evaluation team, led a series of three 2-hour focus groups with participants stratified by stage of career:

- Group A) Early career- seeking first award, 8 participants
- Group B) Early/Mid career- with some funding, 9 participants
- Group C) Senior Mentors, successfully funded senior faculty mentoring those seeking awards, 9 participants

In the winter of 2017, current K-Club program participants were recruited via email requests and announcements during K-Club sessions. Volunteers were placed into one of the three focus groups depending on their career stage. To fill gaps in focus groups, former K-Club attendees were directly emailed and further leads were generated through department heads and other Emory leadership. After choosing times and dates that worked for most candidate attendees, final dates and logistical information were provided via email. Participants were asked to complete a brief demographic and background information survey prior to their focus group, 22 participants completed this survey (see Table 2) and 4 participants did not. Results of this survey indicated a reasonable distribution of participants across different demographic indices, and across different research areas and experiences. Most participants across all groups are affiliated with Emory School of Medicine (72%). There was not a notable difference in affiliations among the three focus groups. There was not a notable difference in research classifications among the three focus groups. The largest number of participants self-identified as basic science researchers. Senior mentors in Group C were asked to indicate their mentoring experience, which showed that they had mentored, on average, 6 pre-doctoral mentees, 11 post-doctoral mentees, and 8 junior faculty mentees each.

Data collection instruments were developed in collaboration with Dr. Stacy Heilman, K-Club Program Director and Grants Advocate, Barbara Kilbourne, Manager of Business Operations, Jamie Adachi, Georgia CTSA's Tracking & Evaluation Research Associate, and Dr. Nicole Llewellyn, Manager of Research Projects for Georgia CTSA's Tracking & Evaluation Program. Guides and protocols were carefully tailored to the specific composition of each group (See Appendix A). Actual focus group conversations deviated somewhat from these pre-formulated guides, based upon the questions and comments that arose during each focus group.

Focus groups were audio and video recorded and subsequently transcribed verbatim. Two Georgia CTSA team members, Jamie Adachi and Hannah Eisen, conducted a thematic analysis of the interview transcripts using MAXQDA 12 Standard software. They reviewed the transcripts, field notes, and interview guide to develop a code book. It included deductive themes derived from the interview and inductive themes that emerged from the transcripts, for a total of seven codes, most with sub-codes. The two coders coded each of the transcripts independently and then compared their analyses, discussing discrepancies and reconciling differences until reaching agreement. Frequency analysis of the coded themes was conducted, by group type and by theme, to determine the relative prevalence of each theme in the focus groups discussions. Although prevalence in the discussions is not necessarily the same as importance of the topic to participants, we took frequency information into account, along with subjective evaluation of importance, when forming recommendations.

Table 2. Focus Group Participant Demographic & Background Information

Focus Group Participant Pre-Survey, N=22					
	Group A n=6	Group B n=8	Group C n=8	Total	Total Percent
Age					
25 to 30 years old	1	0	0	1	5%
31 to 35 years old	4	0	0	4	18%
36 to 40 years old	1	6	1	8	36%
41 to 45 years old	0	2	0	2	9%
51 years old and older	0	0	7	7	32%
Sex					
Female	3	6	2	11	50%
Male	3	2	6	11	50%
Ethnicity (checked all that applied)					
White	4	5	6	16	70%
Black/African-American	0	2	1	3	13%
American Indian or Alaska Native	1	0	0	1	4%
Asian	1	1	1	3	13%
Affiliation					
Emory School of Medicine	3	4	7	14	72%
Emory School of Medicine & Children's Healthcare of Atlanta	2	3	1	6	21%
Emory School of Medicine & VA Hospital	0	1	0	1	3%
Emory School of Medicine Pediatrics & Children's Healthcare of Atlanta	1	0	0	1	3%
Research Classification (checked all that applied)					
Outcomes Research	1	1	0	2	5%
Basic Science	6	6	6	18	41%
Clinical Science	3	3	4	10	23%
Translational Science	4	4	6	14	32%
Mentoring Experience (over entire career, for Group C, Senior Mentors only)					
Number of Pre-doctoral mentees			50	50	25%
Number of Post-doctoral mentees			91	91	45%
Number of Junior faculty mentees			63	63	31%

Note: 4 focus group participants, 2 from Group A, 1 from Group B, and 1 from Group C, did not complete the pre-survey.

Findings Overview

Table 3 lists the definitions of the specific themes that emerged from the analysis of the three focus groups with: Early career- award seeking, early/mid career- with some funding, and senior mentor-level research investigators. Figure 2 depicts the relative frequencies of these themes across all three focus groups.

Table 3. Definitions of Final Themes

Themes	Definition
1. Format of Sessions	Feedback on K-Club format and structure, including meeting times, locations, frequency, desire for breakout groups, individualized feedback and invited experts
2. Mentorship	Discussion of resources that would improve mentorship, including resources for mentors, matching mentees with co-mentors, and support to help mentees better work with their mentors
3. Grant Application Resources	References to grant writing support, including locating and navigating grant resources, finding appropriate grants, grant writing, compelling storytelling, and revising for resubmission
4. Ambiguity of Brand	Confusion regarding the K-Club's target audience and services; lack of clarity around the program's mission/vision/purpose
5. Technology	References to what people want from various types of technology; conversation surrounding useful technology that can be incorporated into sessions
6. Marketing & Communication	Discussion of the means through which information about the club spreads, including both intentional promotional efforts and word-of-mouth
7. Evaluation	Conversation around best practices in K-Club evaluation methods

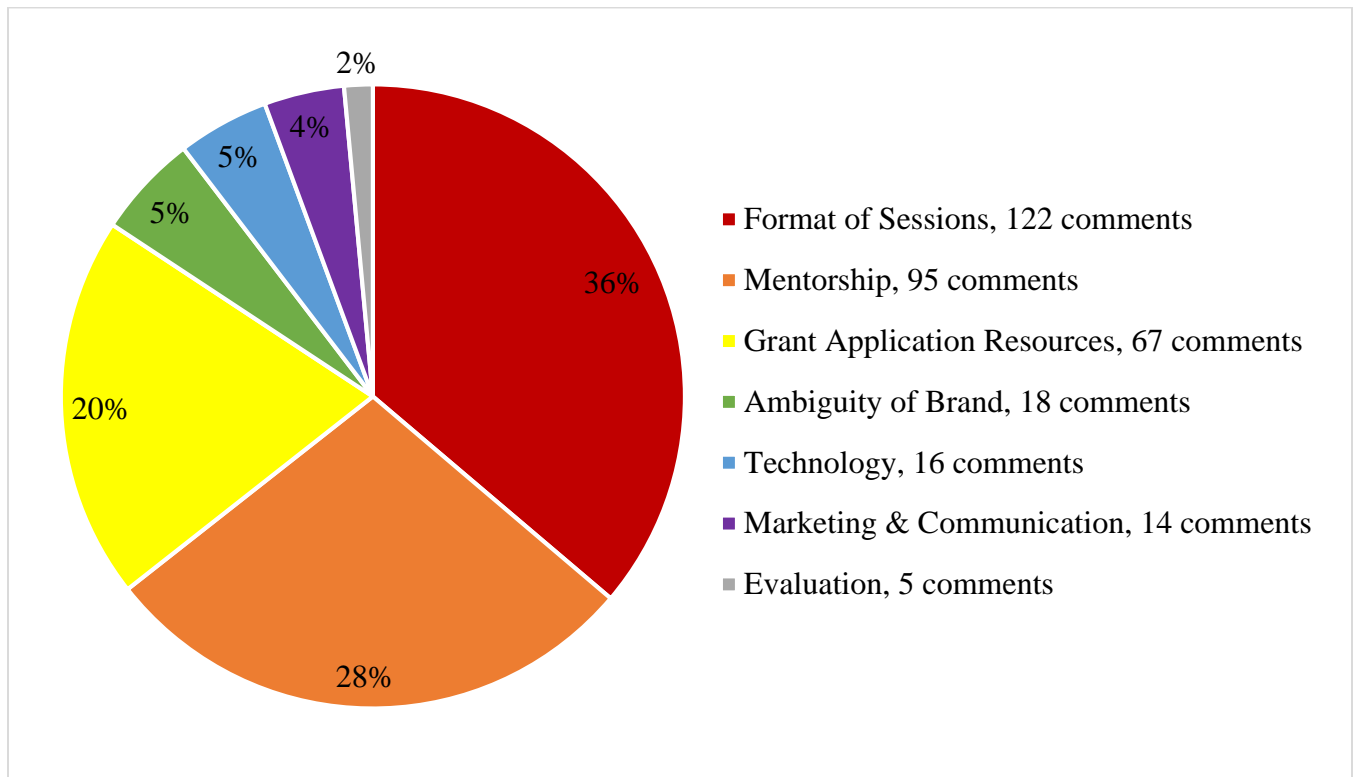


Figure 2. Overview of Theme Frequencies

Detailed Theme Descriptions

Theme 1: Format of Sessions

Participants discussed the advantages of changing how frequently the club meets and its location, as well as changes to the structure of meetings and the support offered to attendees.

Timing, Frequency, and Location of Sessions

Participants offered diverging opinions about the timing and location of K-Club. Junior and senior participants remarked that attending noon meetings at Children's excluded clinicians and others working at satellite sites. A senior participant explained, "I would love for my mentees to come, but the location isn't central and timing is in the middle of everything. If you are doing the morning clinic, you don't finish by 12. If you're doing an afternoon clinic, you have to leave around 12 to make clinic at 1." Conversely, other junior and senior participants felt that the consistent meeting time and location made it easy for them to protect the time in their schedules.

However, both groups agreed that the career development benefits from attending K-Club were significant and worth any scheduling inconvenience. An early career-award seeking participant based at a satellite clinic recounted, "I had actually known about the K-Club and wanted to go, but I just have a busy schedule and when you put travel on either end, [attending requires] more than an hour. But, once I realized the benefit...it was then easier to protect the time to come over here." To alleviate the inconvenience, attendees recommended offering parallel sessions after 4:00 pm for clinicians or holding meetings at different sites.

Creating Small Groups within K-Club

Both groups of early career attendees agreed that incorporating small-group activities would benefit K-Club members. Conversely, senior-level participants did not emphasize small groups. The most common suggestion from the three focus groups was to assemble groups whose members were at varied stages of career development who would "put into practice" material covered in K-Club sessions, such as writing specific aims sections or a biosketch. Members would review each other's work, providing peer mentoring and review. Early/mid career-funded and senior participants recommended that each group contain several senior people to "provide structure" and distribute "responsibility for feedback, coaching, and advice."

Providing Individualized Feedback

Participants described the benefit of receiving individual feedback from experts, such as Janet Gross who is an independent PhD grant consultant who specializes career development award grant writing. An early/mid career-funded participant explained, "[my mentors] give general feedback, but they're not very detail-oriented. When [Janet] reads grants, she is." Echoing this sentiment, a senior participant said, "A big thing [Janet] helps with is all of the new requirements and formatting issues. She's a professional grant writer so that really helps our junior people who aren't as experienced to have somebody who is attentive to how things sound."

However, participants recognized that offering individual sessions with Janet Gross for all was not realistic and recommended creating the small groups described above as an alternative, though there were concerns about quality control. Additionally, an early/mid career-funded participant said that providing access to a technical writer would help K-Club attendees and an early career-award seeking participant recommended making funds available for external review of proposals.

Inviting Guest Speakers

Both groups of early career participants suggested guest speakers for future K-Club sessions. While early career- award seeking participants were interested in guest speakers with specific types of expertise, early/mid career-funded participants were more interested in learning from the experiences of guest speakers. For example, the early career- award seeking focus group suggested inviting division heads and scientific review officers from the National Institutes of Health, National Science Foundation, and other funders to explain “their priorities for junior faculty and what they like to see on an application.” An early career- award seeking participant mused that having outside speakers from the NIH would act as a ‘carrot’ for mentors to attend sessions. Early/mid career-funded participants were interested in panel discussions and hearing how other scientists have developed their ideas with available resources.

Theme 2: Mentorship

Participants discussed resources that would improve mentorship, including resources for mentors, matching mentees with co-mentors, and support to help mentees better work with their mentors and take ownership of their own careers.

Resources for Mentors

Across the focus groups, two common ideas emerged to improve mentorship. First, as discussed above, both groups of early career participants suggested that K-Club share more information with mentors regarding the content shared during club meetings and the resources available at Emory to support research. An early career- award seeking attendee explained how making her mentor aware of the information shared during the club would have helped her:

I felt like one of the most frustrating parts of when I would go to a K-Club meeting and learn something new was that I have a very senior advisor. It was difficult sometimes to convince him that someone had just told me something slightly different that we should do with the grant. I think that if he heard it not from me, but somebody else first, it might have been easier to bridge the gap of him saying I should do one thing and the person that just talked to me saying I should do something different.

Both groups of early career participants also recommended sharing information with mentors about the resources available at Emory. An early career- award seeking attendee noted that doing so would “educate the senior faculty on how to help the junior faculty. The senior faculty actually want to help, they just don’t know what resources are available here.” An early/mid career-funded attendee echoed this sentiment, saying, “I think having senior mentors aware of the opportunities for their mentees is beneficial.”

The second idea that emerged was to offer training on mentorship. A senior attendee explained, “I’ve never received mentorship training so some forum to get structured training on how to be an effective mentor would be something that the K-Club can do, that would help”. One senior attendee described attending a three-day workshop that the San Francisco CTSA organized where a “seasoned coached [described] how to manage your role as a mentor and how to effectively engage the mentee.” Another described a program by the Atlanta Best Mentor program where she learned techniques for managing her mentees based on what motivated them.

Providing Well-Rounded Mentorship

Participants expressed interest in improving mentorship by helping to match mentees with secondary mentors. Early career- award seeking participants noted that they were interested in meeting co-mentors outside their discipline who shared their research interests, co-mentors with active R01

grants, or female co-mentors for female mentees. An early/mid career-funded participant recommended co-mentorship to “maximize the positives and minimize the negatives” of her mentors. Senior participants reiterated the importance of co-mentors, with one senior mentor describing working with a co-mentor whose skills were complementary to hers as “a beautiful combination because [the mentee] got the best of both worlds...and a cheerleading group.” Another said, “I’m not the expert of all things,” and suggested creating a list of senior faculty and their expertise that mentors could use to refer junior faculty and fellows to people with appropriate expertise.

Mentee Responsibilities and Ownership

Early/mid career-funded and senior participants discussed the importance of the need for mentees to be accountable and show dedication in the mentor-mentee relationship, in their research projects and in their own careers. One senior mentor struggles most helping mentees who are less internally driven: “It’s hard for me when someone’s not driven, highly focused and productive...part of my struggle is how do I get them to that point...when they’re not necessarily that type of person...how do you move them in a productive way...so that they’re making progress and achieving?” Another mentor expressed frustration when mentees try to rush the career development process and do not trust their mentors and take the advice offered, instead looking for “fast success”. Another struggle described was having the time to prompt junior people to be more curious and open to research opportunities. “There’s so many great unknowns that we have to fix in our field and they want to sign out and get out. ...[It would be good to have more] one-on-one time [to] really help push junior people in ways that need to be pushed [towards] developing your niche and figuring what’s interesting.”

In addition to the importance of cultivating research commitment and curiosity, early/mid career-funded and senior participants also discussed the critical nature of career timing, setting milestones and mentee dedication to meeting those milestones starting early in their careers. Many agreed that junior researchers should begin preparing for K grants earlier in their careers. An early/mid career-funded participant explained:

If you’re starting to think about a K when you get your first faculty position, you’re too late to be a good candidate. I think sometimes the fellows think that anyone can do research and I think it’s more like the Army: there’s a few good women or men out there who can do it. [We should do sessions saying] ‘If you get passionate about these ideas and following scientific questions, here’s the timeline you should follow.

Senior participants echoed the importance of preparation, saying that, “fellowship is the time to get your pilot data...if you’re trying to get it as junior faculty, you just don’t have enough protected time.”

A second theme that emerged in this area from the early/mid career-funded and senior focus groups was the need for the development of efficient and effective communication skills. This was discussed as foundational to scientific career development, and was also noted as something that will facilitate better communication and help build stronger mentor-mentee relationships. It was suggested that mentees could benefit from having access to resources geared towards improving their general communication strategies, public speaking and visual presentation skills. Early/mid career-funded and senior participants noted that K-Club could help mentees build necessary skills to be a better one-on-one communicator and mentee. A senior participant commented “making phone calls every week and sending them emails saying, ‘I need X, you know Y and you’re supposed to do

this,' is draining...and sucks out the life from mentorship.” Improving communication skills used in group venues was also discussed including a need for mentees to learn how to explain their research projects and findings in multiple venues and formats and making aesthetically clear PowerPoint presentations. One senior mentor expressed dissatisfaction over junior researchers lack of visual presentation skills lamenting that some mentees “spend all this time making a presentation that isn't going to show well,” further stating, “I'm surprised at how many junior faculty that have never done it before that are starting from scratch. It would be nice to have some place to send them...to learn the basics of how you do a PPT.”

Theme 3: Grant Application Resources

All three groups extensively discussed grants in various contexts including: consistent help locating & navigating grant resources, finding appropriate grants, grant writing, compelling storytelling, and revising for resubmission.

Locating & Navigating Grant Resources

Conversation among early career- award seeking participants focused on their desire to learn more about available resources from NIH and Emory. One recommended, “It would be good to do a session and have a NIH Program Officer Skype in or WebEx in to talk about the best way to maximize their resources.” Another added, “Even though I've done all my training here at Emory, there are so many resources that I just am either not really aware of, or that I'm not aware of how to tap into them.”

Early/mid career-funded and senior-level participants shared interest in learning more about resources offered by NIH and Emory University. One early/mid career-funded participant commented, “NIH actually has a lot of the resources and many people don't use them. But they have a lot of mock reviews and they have a lot of information.” A senior-level participant further described available resources from NIH, saying, “The NIH already has a number of outstanding grants that they put on their website. One of the institutes, I don't recall which, there's links to it from the DOM website”

Participants expressed a desire for personalized navigational support; one suggested, “Maybe more specific mentorship....Like specific to me and my situation...Personal.” Another said, “...if there's a mechanism where you have an opportunity to have a 1:1 studio consultation with an expert. This could be an expansion of this program, if this was available it would be extremely helpful.” They also discussed the benefit of continuity of support across time, such as with groups that commit to meeting regularly to discuss navigating the grant process: “...idea would be you would have a senior guide maybe for 4-5 people and you're going to meet regularly and you would discuss whatever you want to but the K-Club sessions might be a jumping point for topics even”

Finding Appropriate Grant Funding Opportunities

Early career- award seeking participants expressed interest in receiving more support and guidance on choosing an appropriate grant that aligned with their interests and stage of career development. An exchange between the moderator and a participant demonstrates this:

Moderator: What do you think? What things would help you to succeed?

Early career- award seeking participant: Grantmanship...I think many of us do great data. But...

Moderator: Like where to apply to?

Early career- award seeking participant: Yeah, where to apply and the structure of the grant. I think having one-on-one close peer review of grants and having Janet Gross and other people's input about how a grant should read [would be helpful].

"Nuts and Bolts" of Grant Writing

A second area of support in which early career- award seeking participants expressed interest was receiving more education on grant writing and feedback on their work. An early career- award seeking participant described a clinical research boot camp she had attended that offered the type of support she thought would benefit K-Club attendees:

I received very practical advice and there was a session that talked about the nuts and bolts of how to write a grant. Just very practical advice. You know, like, 'This is what each section of the grant is,' 'This is what you should never put.' Things like that that you don't know. That's good for people at the early stage when they're first starting. Kind of like big lectures and nuts and bolts.

Compelling Storytelling

Early/mid career-funded participants emphasized the importance salesmanship of both the investigator and the scientific idea when writing grants. However, early career- award seeking and senior-level did not emphasize the importance of salesmanship. One early/mid career-funded participant offered advice, saying, "Be bold, novelty. The [scientific] idea is so important when you're starting. [Reviewers] give you a lot of brownie points. The reviewer, in general, is very willing to forgive a lot in a newer investigator if the idea is cool and sexy." A second early/mid career-funded participant agreed and described the guidance he thought it was important for new investigators to receive:

Really teaching somebody how to write and tell a story and to put together an argument is so foundational. It's almost like an 'Aha!' moment that goes off and now you understand how to make this argument and get the funding move up to where it's not a question any more. It's 'I'm getting scored every time and getting funded.'

Simulate Review Process

Participants at all three levels valued a simulated review process for junior research investigators as a means of improving their proposal. An early career- award seeking participant explained, "I would appreciate if you guys would organize some small sessions that simulate how the reviewer reviews your proposal. Because I think that if we know how to think from that angle, we can definitely improve how we write our proposals."

Revising for Resubmission

Senior-level participants emphasized the importance of providing guidelines on grant revision and resubmission to junior research investigators. A senior participant demonstrated the value of providing guidance to investigators with an anecdote:

I was involved in one of the resubmissions where an investigator was reviewed and got a pink sheet back. The [name of organization] faculty put together a group of investigators. We had a conference call of three or four of us where we reviewed a pink sheet, the critiques and responded. We spent about an hour on the phone for this conversation. We were able to have the investigator walk through how to respond to this critique.

Theme 4: Ambiguity of Brand

Both groups of early career participants expressed confusion regarding the audience that the club targeted with sessions and outreach. Senior-level participants did not discuss K-Club's brand. An early career- award seeking participant stated that, "[K-Club must make] sure that people understand that this isn't just for medical fellows, not just for PhDs, that it's for everybody, including first year post-docs and research career-oriented."

Early/mid career-funded participants wondered if including 'K' in the club's name limited the club's purpose and vision and discouraged people who were seeking other types of awards from attending. One exchange demonstrated this concern:

Program Director: Is the K-Club a misnomer?

All participants: Yeah.

Program Director: It's kind of our brand right but is it a detraction?

Participant: Yeah, I thought it was more directed towards post-docs because and I see that it's more for junior faculty. So, for me K ends with your post-doc.

Theme 5: Technology

Discussion about using technology to improve K-Club was limited. Early/mid career-funded participants did not discuss technology, however, both early career- award seeking and senior participants indicated that finding ways to foster interaction and engagement for people viewing the sessions off-site or on their own time was important. An early career- award seeking participant remarked that WebEx was "really confusing" to people who did not use it regularly, and another agreed, saying, "you have to install all the components, so if you're not really computer savvy," it could be challenging. Additionally, an early career- award seeking participant suggested adding a link to the recorded sessions that would allow attendees to submit questions via email. A senior participant also noted this limitation, saying that while viewers can access content via recordings, "they can't ask questions," which a second participant noted was valuable.

Theme 6: Marketing & Communications

Both groups of early career participants discussed K-Club's current promotional efforts and identified areas for improvement. Senior-level participants did not discuss the importance of marketing and communication. Most participants had discovered the club through email newsletters, word-of-mouth, or pamphlets. Both groups of early career participants emphasized the importance of engaging senior-level research investigators in the club's purpose and activities so that they could refer their mentees to the club. An early career- award seeking participant stated, "So, I would agree with what people are saying about letting mentors know. I think that by letting PIs know [about K-Club], it will trickle down." An exchange between the moderator and an early/mid career-funded participant further supported this idea:

Moderator: And, what do you think is the best way to get the word out to people [about K-Club]?

Early/mid career-funded participant: I think also having senior mentors aware of the [K-Club program] for their mentees is probably beneficial.

Theme 7: Evaluation

To improve evaluation, both groups of early career attendees recommended collecting rapid quantitative feedback at each session's conclusion, which could be complemented with more detailed qualitative feedback collected via email. Senior-level participants did not discuss the importance of evaluation. To incentivize attendees to complete online surveys, an early career- award seeking participant said that making him eligible for a travel grant to support his professional development would incentivize him to complete surveys. He elaborated:

You would have to attend six meetings out of the year and then you have to do the grant review session and a travel grant session. Or whatever you want to do, you just have to check three boxes and then you become eligible...You don't necessarily have to have a large pot of money for this cause not everybody is going to go through all the check boxes.

Another early career- award seeking participant recommended that "repeat attendance is a really good metric. When I think about K-Club, as well as other things I put on my calendar that I really want to do, I think about whether I actually protect that time is an indicator of how useful I think it will be." A early/mid career-funded participant echoed this, saying that, "people vote with their feet," so attendance would be a good measure of the club's usefulness.

Table 4. Frequencies of Themes & Subthemes for All Focus Groups

	Early career- award seeking Focus Group A	Early/mid career-some funding Focus Group B	Senior Mentors Focus Group C	Total
Theme 1. Format of Sessions				
1.0 Operations	25	24	13	62
1.1 Small groups	10	11	2	23
1.2 Individualized feedback	4	9	7	20
1.3 Networking	7	3	2	12
1.4 Guest speakers	3	2	0	5
TOTAL	49	49	24	122
Theme 2. Mentorship				
2.0 Mentorship	3	0	11	14
2.1 Resources for mentors	15	18	9	42
2.2 Incentivizing mentoring	1	0	1	2
2.3 Being a good mentor	8	12	4	24
2.4 Being a good mentee	2	4	7	13
TOTAL	29	34	32	95
Theme 3. Grant Application Resources				
3.0 Grant Funding 101	1	1	3	5
3.1 Finding appropriate grants	17	7	10	34
3.2 Nuts and bolts of grant writing	8	0	5	13
3.3 Compelling storytelling	0	8	1	9
3.4 Simulate review process	1	0	1	2
3.5 Navigating NIH	0	0	1	1
3.6 Revising for resubmission	0	0	2	2
3.7 Navigating Emory bureaucracy	1	0	0	1
TOTAL	28	16	23	67
Theme 4. Ambiguity of Branding				
4.0 Unclear target audience	3	9	2	14
4.1 Unclear vision/purpose/goal	0	4	0	4
TOTAL	3	13	2	18
Theme 5. Technology				
5.0 Functions wanted from technology	7	0	4	11
5.1 Type of technology	4	0	1	5
TOTAL	11	0	5	16
Theme 6. Marketing & Communication				
6.0 Methods & content to promote K-Club	9	5	0	14
TOTAL	9	5	0	14
Theme 7. Evaluation				
7.0 Evaluating the K-Club	4	1	0	5
TOTAL	4	1	0	5

Recommendations & Conclusion

Recommendations

Collectively, the findings of this focus group evaluation informed the following recommendations:

- **Recommendation 1: The format of the sessions should be adapted to meet the growing needs of attendees.** In addition to the monthly session, the program could incorporate small breakout groups and/or more targeted and intense educational offerings to accommodate the diversity and specific needs of program participants. Since participants noted their desire for more individualized feedback, breakout groups can vary based on interest. For example, a group of individuals can conduct an informal peer review, or individuals can form multidisciplinary groups to collaborate on a research project. We recommend engaging specialized professionals such as grant writing consultants, communication specialists, visual/graphic designers, and institutional and organizational behavior leaders to address these needs.
- **Recommendation 2: Mentors need more resources and support to effectively engage and support their mentees.** Mentors acknowledged a need and interest in receiving more structured training on effective mentoring. Early career- award seeking participants believe that it is key for their mentors to be more aware of and promote NIH, Emory University, and K-Club resources. We recommend creating a mentor toolkit to include various career development resources for mentors to vet and people management tips and tricks.
- **Recommendation 3: Mentees need more resources and support to position themselves for research career success.** Mentees acknowledged a need and interest in receiving more structured, personalized, and consistent support (grant writing, submission and revision guidelines, navigating available resources, etc.), and mentors identified an additional need for mentees to develop the ability to take ownership of and better drive the mentor-mentee relationship towards cultivating all areas of career development.

Recommendation 3a: We recommend developing a systematic navigational tool that provides a roadmap guiding early career research investigators through career development, enhancing awareness of the resources and support relevant and available at each stage of the research funds-seeking process and overall career development. An emphasis on seamless continuity in support throughout each step of the process would be of benefit to investigators who are working towards developing their independent research careers.

Recommendation 3b: We also recommend offering a customized and tailored approach to targeted cohorts. Create an algorithm to identify the junior researchers that would derive the most benefit from targeted and intense experiential education efforts in separate areas including i) grant writing labs; ii) management training; and iii) communication skills and leadership development. Small group educational offerings engaging a carefully selected cohort would provide tremendous benefit to meet the breadth of junior researcher needs targeted to specific career stages. For example, researchers who are preparing their first grant application may benefit most from a grant writing lab that provides targeted education and support through a comprehensive grant writing curriculum to include: where to look for grants, how to write applications, simulated peer-review, how to revise and resubmit, and personal branding. Once researchers secure their first award, they may benefit from a management course that offers insights and training on how to best design their own research program, develop talent and manage research funds. Finally, researchers who are ready for the K to R transition or who are

working to develop their local and national reputation and brand may benefit most from a course to help them polish their communication and leadership skills.

- **Recommendation 4: Re-branding is required to clarify the program's mission and target audience.** Focus group attendees expressed confusion regarding the program's overarching purpose, including whether the club was specifically for K grants, or for help with funding from all sources (including industry, pilot grants, etc.), or to support professional advancement beyond funding. Similarly, attendees expressed confusion about who could or should attend K-Club sessions (i.e. senior mentors, fellows, post-doctoral, just clinicians, etc.). We suggest adjusting the name of the program to clarify the target audience and purpose of the club, beyond holding or securing K awards. Also, we recommend revisiting goals and objectives to clarify the program's ongoing purpose and expanding reach. We also recommend targeted and tailored promotion strategies to explicitly call out the groups that the club is trying to reach.
- **Recommendation 5: Consider innovative ways of incorporating technology into the K-Club.** A focus group participant in the early career- award seeking group suggested the use of a tool where grant seekers can download a sampling of successful grants, other NIH-required application materials and share reviews and best practices.
- **Recommendation 6: Consider ongoing best practices in evaluation.** We suggest an ongoing, multi-pronged evaluation approach including both qualitative and quantitative data to ensure that the sessions are helpful, effective, and continuously improving. A pen and paper quantitative satisfaction survey can be distributed before the monthly session ends for quick feedback, while, a digital qualitative survey can be distributed through email to capture richer qualitative data from participants.

Conclusion

The K-Club program is an important resource for early career research investigators that provides much more than K award funding support. The K-Club offers rich career development, educational, and networking opportunities for early research investigators. Participants across all the focus groups noted their high level of appreciation for the club. One early career- award seeking focus group participant stated that “it [does a] nice job keeping me on task. I think I go to a meeting and it [is] kind of a repetition, application of something I already heard. It kind of made me remember that this is something I really want to do and to prioritize.” Despite the fact that participants are extremely busy, all focus group participants indicated that individuals consistently protect time in their schedules for the monthly club. This protected time is a testament to the value it offers to the participants. Program evaluation results indicate that a few targeted enhancements to the program's session format, mentorship program, marketing, communications, and resource offerings can easily take the club to the next level.

References

Hagen, K. (2016). Elements of, and a grading criteria for, a small-scale public health evaluation report.

Layder, D. (1993). *New strategies in social research*. Cambridge: Polity.

VERBI Software (2015). *MAXQDA 12 Reference Manual (v1.0)*, available at: [http://www.maxqda.com/download/manuals/ ... al_eng.pdf](http://www.maxqda.com/download/manuals/...al_eng.pdf) [08.12.2015].

Appendices

Appendix A: Data Collection Instruments & Guide Materials

Below are the scripts guides and intended questions used for Focus Groups A through C. Actual transcripts deviated somewhat from these pre-formulated guides, based upon the questions and conversations that arose in each focus group.

Group A Early Career- Not Yet Funded Focus Group Guide

Thank you for agreeing to participate in this K-Club focus group. My name is Nikki Llewellyn and I'm the manager of evaluation research for the ACTSI, which is one of the co-sponsors of the K-Club. I will be your moderator today and this is Jamie Adachi, soon-to-be public health graduate at Rollins, she will be assisting with the focus group and taking notes evaluation research for the ACTSI, which is one of the co-sponsors of the K-Club. I will be your moderator today and this is Jamie Adachi, soon-to-be public health graduate at Rollins, she will be assisting with the focus group and taking notes.

We are really excited to have you all here today. We have been planning this focus group for a long time and we can't wait to get your valuable input on the future of the K-Club program. Stacy and Barbara are going to be writing a grant to get some funding to expand the program, so we're hoping that this interview will help the directors of K-Club gain some valuable insight and ideas for areas of expansion and improvement to really take the program to the next level. We really want to hear your stories, your ideas, your frustrations, your wish list!

We've split the respondents into several different focus groups based on different stages of careers. This way we thought we could get some really tailored ideas to fit the needs of different types of people who use the K-club. From your group, we're specifically interested in learning what types of support and education you believe will be instrumental in allowing you to develop a successfully funded research program.

I want to let you know that there are no right or wrong answers to any of these questions. We just want to know about your experiences with the club and how it has impacted your career. We would like everyone to get a chance to speak. If you feel uncomfortable answering a question, you can always pass.

And we want to let you know that we'll be recording the session today so that the results can be very carefully analyzed after this. The only people who will listen to the recording or see the transcript will be the K-Club leadership and you'll only be identified by first name.

Okay, so is everyone ready to begin? Okay, we'll start the recording now.

Introductions: *I just want to start with some introductions so that we all get to know each other a little bit before we get into it. We're going to go around the circle, introduce yourself:*

- *say your first name,*
- *your department,*
- *your general research interest*
- *and tell us what is the best advice you've ever received from a mentor?*

I'll start: Again I'm Nikki, I'm with the ACTSI at the Emory School of Medicine, my PhD is in developmental psychology, where I studied mental health in young people, but since grad school I've moved into health evaluation research, most recently I've been focusing evaluating the bibliometric output

of ACTSI, our publications. The best advice I remember is just to expect failure, roll with it, learn from it, and be pleasantly surprised when you actually succeed.

Jamie, why don't you go next...

2.) Okay, here's my second question that I'd like to ask of everyone in the group: What is the best professional development program or event that you've ever attended, and why?

- Probe A: What did you learn?*
- Probe B: What did you like and NOT like about it?*

3.) Thank you! Okay, My next easy question is, how did YOU hear about the K-Club and what do you think would be the best way to reach colleagues like yourself? Anyone can jump in as they think of something they want to say, we don't have to go around the table, necessarily and please speak up if you think of something you want to add to what someone else says...

4.) That's great, thanks, Now I want to turn to some feedback about the format of the K-Club sessions themselves- So, what do you think of the timing and spacing of the sessions? Are these working for you? Anyone...

- Probe A: Is there a better time/length, in your opinion?*
- Probe B: Would one-on-one or smaller group sessions provide any advantages?*

5.) Next question about the current K-club- What kinds of sessions have been most effective in your opinion and Why?

6.) And, are there any topic areas that you would really like to see covered in a future session?

7.) Thank you, Next I'd like to talk about really improving and expanding the k-club. So I want you to imagine there were unlimited funds available for this- Within reason!- What investments would you recommend that would be most valuable in helping you secure funding for your own research program?

- Probe A: What kind of technology could be incorporated into sessions? Like response clickers?*
- Probe B: What about Peer networking opportunities? Social Events? FB group? What would be the best medium?*
- Probe C: What about an expanded mentor program? How do you think that should look like?*
- Probe D: What kinds of experts would you like us to bring in to lead discussions in various topics?*
- Probe E: Do you think mock grant reviews would be worthwhile?*

8.) What type of feedback survey do you think would help inform the organizers of the value of each session and what other topics to address? (Electronic, paper, etc)

- Probe A: Any suggestions for improving the response rate?*

9.) That was wonderful, okay last I just have a couple of big picture questions before we wrap up. So, outside of the K-club what do you think have been the most helpful resources for your research success?

10.) What do you think mentees need the most in order to increase their chances of successfully obtaining research support and funding?

11.) *And, is there anything else anyone would like to share with us?*

Closing Remarks:

Thank you all so much for sharing your perspectives and experiences with us! Your comments will help inform the K-club development. We appreciate the time that you have spent with us! We will send you an executive summary that describes the outcomes of this project and please do let us know if you go home and think about it some more and come up with anything else you'd like to add to the conversation we had today- Thank you!

Group B Early/mid career-funded Focus Group Guide

Thank you for agreeing to participate in this K-Club focus group. My name is Nikki Llewellyn and I'm the manager of evaluation research for the ACTSI, which is one of the co-sponsors of the K-Club. I will be the moderator of this discussion today and this is Jamie Adachi, soon-to-be public health graduate at Rollins, she will be assisting with the focus group and taking notes.

We are really excited to have you all here today. We have been planning this focus group for a long time and we can't wait to get your valuable input on the future of the K-Club program. This is really all about you, supporting you, helping you to reach goals, so your opinion is what we really need. Stacy and Barbara are going to be writing a grant to get some funding to expand the program, so we're hoping that this interview will help the directors of K-Club gain some valuable insight and ideas for areas of expansion and improvement to really take the program to the next level. We really want to hear your stories, your ideas, your frustrations, your wish list!

We've split the respondents into several different focus groups based on where people are in their careers. This way we thought we could get some really tailored ideas to fit the needs of different types of people who use the K-club. From your group, we're specifically interested in learning what types of support and education you believe have been most instrumental in allowing you to successfully fund your research program. What really made a difference, and what would make a difference going forward?

I wanted to tell you a little more about the format of this focus group. We want everyone to get a chance to have their say, so please jump in or raise your hand to let me know if you have something to add to any question or comment. There are no right or wrong answers to any of these questions and we want to get diverse responses, so don't feel that you have to agree with others in the room- just speak your mind. We just want to know about your experiences with the club and how it has impacted your career. We'll be calling you by name a lot, that's to help with coding, and it would be helpful for you to identify yourself when you chime in as well- like, 'this is Nikki, and I think...'. If you ever feel uncomfortable answering a question, you can always pass.

And we want to let you know that we'll be recording the session today so that the results can be very carefully analyzed after this. We don't want anything you've said to go to waste. The only people who will see the recording or the transcript will be the K-Club leadership and you'll only be identified by first name. Recording the session on video helps us to know who is speaking when and to get the full meaning of what people are saying, things like gestures and so forth, so does anyone mind if we use video rather than audio recording today?

Okay, are there any questions before we begin? Okay, we'll start the recording now.

Introductions: *First I want to start with some introductions so that we all get to know a little bit about each other before we get into it. We're going to go around the circle, introduce yourself:*

- *say your first name,*
- *your department,*
- *your general research area,*
- *and tell us what is the best career advice you've ever received from a mentor?*

I'll start: Again I'm Nikki, I'm with the ACTSI which is part of the Emory School of Medicine, my PhD is in developmental psychology, where I studied mental health in young people, but since graduate school I've moved into health evaluation research, most recently I've been focusing on evaluating the bibliometric output of ACTSI, the publications that have come out of the program. The best advice I remember is just to expect failure, roll with it, learn from it, and be pleasantly surprised when you actually succeed- especially true for grant applications

Jamie, why don't you go next...say your name, department, area of interest, and the best career advice you've received...

1.) Thank you! Okay, here's my next easy question: how did each of YOU hear about the K-Club and what do you think would be the best way to reach colleagues like yourself? We'll go around the circle once more

- *Probe A: How do we reach the audience that can benefit? Facebook, Twitter, Email newsletter?*

2.) Okay, here's my next question that I'd like to ask the group- , We don't have to go around the table, anyone can jump in as they think of something they want to say, and please speak up if you think of something you want to add to what someone else says...

I want to turn to some feedback about the format of the K-Club sessions themselves, to begin with, what do you think of the timing and spacing of the sessions? Are these working for you? Anyone...

- *Probe A: Is there a better time/length, in your opinion?*
- *Probe B: Would one-on-one or smaller group sessions provide any advantages?*

4.) Next question about the current K-club- What kinds of sessions have been most effective in your opinion and Why?

5.) Who do you think can benefit from K-Club? People who have not yet been funded or those who already have funding or both?

- *Probe A: Can one size really fit all?*

6.) Thank you! Next I'd like to talk about really improving and expanding the k-club. So I want you to imagine there were unlimited funds available for this- Within reason!- What investments would you recommend that would be most valuable in helping you secure funding for your own research program?

- *Probe A: What kinds of experts would you like us to bring in to lead discussions in various topics? Science writers? NIH?*
- *Probe B: What would be the benefits of expanding focused workshops? (idea that those who receive personal help will be required to help others)*
- *Probe C: Do you think mock grant reviews would be worthwhile?*
- *Probe D: What kind of technology could be incorporated into sessions? Like audience response clickers/app?*

7.) *Are there any other topic areas that you would really like to see covered in a future session?*

8.) *What type of feedback survey do you think would help inform the organizers of the value of each session and what other topics to address? (Electronic, paper, etc)*

- *Probe A: Any suggestions for improving the response rate?*

9.) *That was wonderful, okay last I just have a couple of big picture questions before we wrap up. So, outside of the K-club what do you think was the best professional development program or event that you've ever attended, and why?*

- *Probe A: What did you learn?*
- *Probe B: What did you like and NOT like about it?*

10.) *What do you think mentees need the most in order to increase their chances of successfully obtaining research support and funding?*

11.) *What advice would you give to someone starting the application process?*

12.) *And, is there anything else anyone would like to share with us?*

Closing Remarks:

Thank you all so much for sharing your perspectives and experiences with us! Your comments will help inform the K-club development. We appreciate the time that you have spent with us! We will send you an executive summary that describes the outcomes of this project and please do let us know if you go home and think about it some more and come up with anything else you'd like to add to the conversation we had today- Thank you!

Group C Senior Mentor Focus Group Guide

Thank you for agreeing to participate in this K-Club focus group. My name is Nikki Llewellyn and I'm the manager of evaluation research for the ACTSI, which is one of the co-sponsors of the K-Club. I will be the moderator of this discussion today and this is Jamie Adachi, soon-to-be public health graduate at Rollins, she will be assisting with the focus group and taking notes.

We are really excited to have you all here today. We have been planning this focus group for a long time and we can't wait to get your valuable input on the future of the K-Club program. This is really all about you, supporting you, helping you to reach goals, so your opinion is what we really need. Stacy and Barbara are going to be writing a grant to get some funding to expand the program, so we're hoping that this interview will help the directors of K-Club gain some valuable insight and ideas for areas of expansion and improvement to really take the program to the next level. We really want to hear your stories, your ideas, your frustrations, your wish list!

We've split the respondents into several different focus groups based on where people are in their careers. This way we thought we could get some really tailored ideas to fit the needs of different types of people who use the K-club. From your group, we're specifically interested in learning about the value that the K-club has brought and strategic ways to grow the mentoring support aspect of the program.

I wanted to tell you a little more about the format of this focus group. We want everyone to get a chance to have their say, so please jump in or raise your hand to let me know if you have something to add to any

question or comment. There are no right or wrong answers to any of these questions and we want to get diverse responses, so don't feel that you have to agree with others in the room- just speak your mind. We just want to know about your experiences with the club and how it has impacted people's career. We want you to think about your whole career, both your experiences as a junior investigator and later as a mentor to junior investigators.

We'll be calling you by name a lot, that's to help with coding, and it would be helpful for you to identify yourself when you chime in as well- like, 'this is Nikki, and I think...'. If you ever feel uncomfortable answering a question, you can always pass. We also want to be strategic about the limited time we have to go over a lot of topics so in the interest of time I may have to cut off a particular topic so please don't be offended if I have to stop you to go on to the next question if Jamie signals that the clock is ticking.

And we want to let you know that we'll be recording the session today so that the results can be very carefully analyzed after this. We don't want anything you've said to go to waste. The only people who will see the recording or the transcript will be the K-Club leadership and you'll only be identified by first name. Recording the session on video helps us to know who is speaking when and to get the full meaning of what people are saying, things like gestures and so forth, so does anyone mind if we use video rather than audio recording today?

Okay, are there any questions before we begin? Okay, we'll start the recording now.

Introductions: First I want to start with some introductions so that we all get to know a little bit about each other before we get into it. We're going to go around the circle, introduce yourself:

- *say your first name,*
- *where you're from originally,*
- *your department and general research area,*
- *and tell us what is the best career advice you've ever received or given to a mentee?*

I'll start: Again I'm Nikki, I'm originally from here in Georgia, I did my undergrad here at Emory. Now, I'm with the ACTSI which is part of the Emory School of Medicine, my PhD is in developmental psychology, where I studied mental health in young people, but since graduate school I've moved into health evaluation research, most recently I've been focusing on evaluating the bibliometric output of ACTSI, the publications that have come out of the program. The best advice I remember is just to expect failure, roll with it, learn from it, and be pleasantly surprised when you actually succeed- especially true for grant applications

Jamie, why don't you go next...say your name, where you're from, department and area of interest, and the best career advice you've received...

1.) Thank you! Okay, for my next question that I'd like to ask the whole group- , We don't have to go around the table, anyone can jump in as they think of something they want to say, and please speak up if you think of something you want to add to what someone else says...

I want to turn to some feedback about the current K-Club sessions as they are, to begin with, what do you think of the timing, frequency, and format of the sessions? Are these working for you? Anyone...

- *Probe A: Would one-on-one or smaller group sessions provide any advantages?*
- *Probe B: With what frequency should topics be repeated?*
- *Probe C: As a panelist or speaker, what have been the best or most satisfying formats?*

2.) *Next question about the current K-club- What kinds of sessions have been most effective in your opinion and Why?*

3.) *Who do you think can benefit from K-Club? People who have not yet been funded or those who already have funding or both?*

- *Probe A: Can one size really fit all?*
- *Probe B: what would make you more likely to promote the K-Club or advocate it to others?*

4) *What incentivizes you to participate in K-Club? (As a panelist or audience member)*

5.) *Thank you! Next I'd like to talk about really improving and expanding the k-club. So I want you to imagine there were unlimited funds available for this- Within reason!- What investments would you recommend that would be most valuable in helping to take the K-Club to the next level?*

- *Probe A: What kinds of experts would you like us to bring in to lead discussions in various topics? Science writers? NIH?*
- *Probe B: What would be the benefits of expanding focused workshops? (idea that those who receive personal help will be required to help others)*
- *Probe C: Do you think mock grant reviews would be worthwhile?*
- *Probe D: What kind of education-based technology have you used that could be incorporated into sessions? Like audience response clickers/app?*
- *Probe E: Are there any other topic areas that you would really like to see covered in a future session?*

6.) *Expanded programs might require more senior level faculty involvement. What would incentivize you to dedicate measurable effort?*

- *Probe A: Would you be willing to be paid discretionary money to review a few K applications and then participate in a mock review to be recorded and watched?*

7.) *What would be the most helpful addition to support you as a mentor in providing the best mentoring?*

- *Probe A: Are there innovative mentoring techniques you'd like to learn more about?*
- *Probe B: How can the k-club fund mentoring efforts?*
- *Probe C: What do you need to help mentees become mentors?*

8.) *That was wonderful, okay last I just have a couple of big picture questions before we wrap up. So, outside of the K-club what do you think was the best professional development program or event that you've ever attended, and why?*

- *Probe A: What did you learn?*
- *Probe B: What did you like and NOT like about it?*

9.) *What have you seen to be the most frequent pitfalls of junior faculty not succeeding in research?*

10.) *What do you think mentees need the most in order to increase their chances of successfully obtaining research support and funding?*

- *Probe A: What are objective measures of success?*
- *Probe B: What would be a positive model*

11.) *What one piece of advice would you give to someone just starting out in the application process?*

12.) *And, is there anything else anyone would like to share with us?*

Closing Remarks:

Thank you all so much for sharing your perspectives and experiences with us! Your comments will help inform the K-club development. We appreciate the time that you have spent with us! We will send you an executive summary that describes the outcomes of this project and please do let us know if you go home and think about it some more and come up with anything else you'd like to add to the conversation we had today- Thank you!

Appendix B. Thematic Codebook

Themes	Definition	Exemplar Quote
Theme 1. Format of Sessions		
1.0 Operations	Suggestions from participants that refer primarily to K-Club logistics, such as meeting times, locations, length and frequency.	“I have been to one of K-Club meetings in the past. I think the logistics of coming to a club at 12:00 in the afternoon in the middle of clinic, especially in a location that isn't central for everybody, makes it challenging. I would love to come to more. I would love my mentees to come, especially those that are at a stage that are preparing for a K award. Location isn't central and timing is in the middle of everything. If you are doing the morning clinic, you don't finish by 12:00. If you're doing an afternoon clinic you have to be leaving by around 12:00 to make clinic at 1:00. So, that creates a logistical challenge for attendance.” – Senior focus group, page 4
1.1 Small groups	Any reference to small groups including: (1) People interested in applying for the same grant; (2) People from different disciplines meeting because of a shared interest; (3) People at different stages in their career; Peer-to-peer horizontal mentoring peers to build community/networking/collaborate on writing or reviewing grants.	<p>Grant-based: “It would helpful then you could group people applying for a K99 versus K23 versus K08 I think you could have people that are in at least more thematically aligned areas as opposed to the large group.” – Early/mid career-funded focus group, page 8</p> <p>Early/mid career-funded/Senior Mix: “...A set of small groups that would plan, you know, kind of the peer mentoring with a senior person that would plan to meet after the monthly session to do some intensive follow up with each other and maybe, if it's around specific aims and the next month's topic isn't something as interesting, that group might stick with the specific aims topic for a couple of months of meetings. So ,you would have your own little accountability group...” – Early/mid career-funded focus group, page 7</p> <p>Mixed disciplines: “...I think in trying to make it interdisciplinary you know so you have an epidemiologist, an immunologist, you know, some people from different realms, I think. You know the best learning I had during my postdoc was, there's a group called Kazazi and we all kind of did maternal and child health work but we were all interdisciplinary so the biostatisticians and</p>

		epidemiologists, you know, lab people. And, that was a real strength and people were at different stages of the career.” - Early/mid career-funded focus group, page 8
1.2 Individualized feedback	Gaining individualized 1:1 feedback from a grant writing expert who has reviewed your written product or is familiar with your proposal(i.e. Janet gross or someone else)	“...having Janet Gross and the service she offers is probably one of the best aspects of the K-Club. It's incredible that you can provide a service like that for people. Don't take that away. Don't fix what's not broken.” - Senior focus group
1.3 Networking	Peer/colleague networking, building connections and community in the Emory health science community	“I think one big thing, like an annual happy hour. Not one big thing on a more routine basis. I think that people would be more willing to do networking if they also perceived that it was an investment in their own professional development.” – Early career-award seeking focus group, page 12
1.4 Guest speakers	Any reference to helpful speakers/panelists that could participate in the sessions (i.e. NIH people or grant reviewers...)	“Foundation. Grant people. Review officers. Um. Division heads.” – Early career- award seeking focus group, page 16
Theme 2. Mentorship		
2.0 Mentorship	Any reference to mentorship/menteeship	“...Maybe come up with a creative way to engage mentors. Maybe a structured way of mentoring effectively. I think most of us mentor, that we just do it because we have to do it. There was somebody before us that mentored us. I've never received any mentorship training. So, some forum of creating an opportunity to get some structured training on how to be an effective mentor would be something that the K-Club can do.” – Senior focus group, page 17
2.1 Resources for mentors	Any reference to the support/resources that mentors need that would improve mentorship.	“I think having a toolkit for mentors to use and know about. At least something to point to would be beneficial. Because a lot of the stuff I found out on my own. My mentor didn't necessarily know.” – Early career- award seeking focus group, page 2
2.2 Incentivizing mentoring	Any reference to incentivizing mentors to take time to mentor mentees	“Protected time” – Senior focus group, page 16

2.3 Being a good mentor	Any reference to the qualities/actions that make up a good mentor	“I also think that...You know, this is tacky, but one of the things that NIH is looking for is that you have someone on your mentorship team that has an R01, an active R01 right now. So, I think some targeted matchmaking on this. Like, so maybe this isn't your primary scientific mentor. So, maybe your scientific mentor doesn't have active R01 funding right now. But this is someone here at the institution that does and is similar in this area and that would be a good relationship to foster. “ – Early career- award seeking focus group, page 26 - 27
2.4 Being a good mentee	Any reference to the qualities/actions that make up a good mentee	“I have to say that what I personally struggle with is trying to get people to be more curious. As junior faculty and fellows—for some reason this sounds very generational—I think that when you're a clinical fellow you're not encouraged to be curious about things. I struggle with this to try and impart that there's so many great unknowns that we have to fix in our field and they want to sign out and get out. What I'm getting at is when you ask for help, I think one-on-one time and really helping push junior people in ways that need to be pushed. That's part of developing your niche and figuring what's interesting, reading, all of the above. I don't know if I'm alone in this but any time I bring this up with anyone in the country, it's the exact same head nod. We all agree with that.” – Senior focus group, page 16
Theme 3. Grant Application Resources		
3.0 Grant Funding 101	Any general reference to grant writing	“And [bringing in] a non-NIH perspective as well. In fact, most of my research is funded by private donors at this point. So, with one R03 and a lot more money coming from individual people” – Early/mid career-funded focus group, page 20
3.1 Finding appropriate grants	Conversation surrounding finding a grant that matches your career development and interests, including non-NIH funding resources for early career investigators to pursue.	“...maybe fund pilot grants so that people can get data to then get more funding. Especially given the current landscape. If I couldn't do that and we were sort of solely focusing on creating better scientists and, ideally with that, doing work that will help their patient population. Then, that goes to some of the other ideas we were talking about in terms of ways to enhance the curriculum.” Early/mid career-funded focus group, page 16

3.2 Nuts and bolts of grant writing	Demystifying the grant process by breaking a complex grant into more manageable components. Discussing what should and should not be included in that section and how to best present that information.	“Clinical research boot camp [was a useful professional development event because] it’s very practical advice and there was a session that talked about the nuts and bolts about how to write a grant...this is what each section of the grant is. This what you should never put.” – Early career- award seeking focus group, page 7
3.3 Compelling storytelling	A concept that consists of at least one of the following components. Teaching K-Club attendees: (1) To craft arguments in their grants that persuade reviewers of their worthiness for funding. (2) To sell themselves as researchers.	“Really teaching somebody how to write and tell a story and to put together an argument is so foundational. It’s almost like an ‘aha moment’ that goes off and now I understand how to make this argument and get the funding.” – Earl-funded focus group, page 19; “We have somebody from the DOM pediatric conference coming to the postdoc office to talk about building your brand. How you talk about yourself and what you do.” – Early/mid career-funded focus group, page 21
3.4 Simulate review process	Any reference to a simulated grant review process to help research investigators better understand the review process	“But, I also at this stage [would] appreciate if you guys would organize some small sessions that, as [participant name] suggested, simulate how the reviewer reviews your proposal, things like that. Because I think that if we know how to think from that angle, we can definitely improve how we write the proposals. Something like that.” – Early career- award seeking focus group, page 5
3.5 Navigating NIH	Conversation surrounding finding and using NIH’s grant writing and submission resources (i.e. website, example grant submissions, people)	“Being there and understand how you reply to the A1, how you do it, how to navigate the NIH website and be able to get the information that I need, what are different institution’s success rates, what can be different from one study section to the other. All of that for me was huge.” – Early/mid career-funded focus group, page 13
3.6 Revising for resubmission	Conversation surrounding best practices in re-submitting grants after receiving feedback	“Has there been a K-Club on how to respond and revise an application based on reviewer comments? I couldn't remember if I had been to one but I think that's a really important skillset. I think someone had mentioned rejection... but I'd take more feedback for improvement so learning how to do that.” – Early/mid career-funded focus group, page 15
3.7 Navigating Emory bureaucracy	Conversation about how Emory’s bureaucracy for grants meshes with outside organizations and how applicants can successfully work with the Emory bureaucracy.	“And that's why I think it's helpful learning how to navigate. Or learning new ways to seek out funding, given that the traditional model may be changing. There are sort of Emory and CHOA-specific nuances that are helpful to

		learn before you get into an industry sponsor” – Early/mid career-funded focus group, page 21; “And they keep changing. I think more education around OSC, OSP and Office of Technology Transfer. Those three entities are challenging and then the CHOA OSP to add that into that. And, so, if we can have an expert who understands how that's supposed to work.” – Early/mid career-funded focus group, page 21
Theme 4. Ambiguity of Branding		
4.0 Unclear target audience	Confusion regarding the target audience that the club is trying to reach with their sessions and outreach.	Program Director: Is the k-club a misnomer? All: Yeah Program Director: It's kind of our brand, right? But is it a detraction? Participant: Yeah, actually. I thought it was more directed towards post-docs because and I see them for most of you it's more for a junior faculty. So for me K ends with your postdoc. - Early/mid career-funded focus group, page 9
4.1 Unclear vision/purpose/goal	References to confusion about the K-Club’s mission/vision/purpose, especially regarding whether its purpose is career development, or to help members get K grants, or just any grant.	“But, K-Club, what is your main objective? What is your mission? I guess to help people advance their career. But what is the tool that, for you guys, is more important? Is it grant funding? Is it—I don't know.” Early/mid career-funded focus group, page 11
Theme 5. Technology		
5.0 Functions wanted from technology	Any reference to the things that people want from various types of technology (i.e. WebEx)	Participant: The thing I found a little frustrating was the WebEx seminars. You can’t submit a question afterwards, right? So, it would be nice if you could submit a question, but after the fact. Moderator: During? Participant: Not necessarily...well, during would be nice too. But, after the fact. So, say I didn’t make it to the K-Club meeting and I watched it the Thursday but I still have a question. There should be a link to say, ‘submit questions via email or something. - Early career- award seeking focus group, page 9-10
5.1 Type of technology	Conversation surrounding various types of technology that can be incorporated into the K-Club program (i.e. response clickers)	“So, we have a lot of private foundations that use um... Proposal Central. So, if we had something like that in-house that Emory would sponsor. Then we would be able to submit our grants online and go through the process of submitting the grants” - Early career- award seeking focus group, page 8
Theme 6. Marketing & Communication		

6.0 Methods & content to promote K-Club	The means through which information about the club spreads, whether intentionally, such as via promotion efforts, or via word-of-mouth.	Word-of-mouth: “I first heard about it through one of my lab mates. At the time, she’d gone before because she was applying for a K.” - Early career- award seeking focus group, page 4
Theme 7. Evaluation		
7.0 Evaluating the K-Club	Conversation surrounding best practices in K-Club post-session evaluation methods.	“If you want quantitative data get it while people are there. If you want qualitative data, free response, new ideas, that’s going to probably have to happen after the fact” – Early career- award seeking focus group, page 22.