

**Question:** What motivated you to pursue a career development award?

**Bates:** so I am currently on a career development award, and I was motivated to pursue this award because of the dedicated funding that would allow me to gain independence in my research, and kind of get my feet under me in terms of learning how to conduct multi-site clinical trials and conduct rigorous behavioral intervention research that I hadn't had the chance to Lead yet in my training. So I had been exposed to clinical trials, and I had been a part of those types of studies, but I hadn't had a chance to lead them myself.

**Frazier:** I personally wanted to pursue one just to get the experience of submitting all the documents, working with the infrastructure, and learn how to craft a proposal and all the documents for it.

**Milbury:** I went off my key award in 2018, which is crazy, seven years ago, it seems like just yesterday. And so it's kind of hard to think back, because in 2013 when I received the award, I felt like I really did not know what I was doing in medical academia at all. And so some of it is definitely related to what Carolyn mentioned, that yes, the desire for more training, which was very necessary for me because I kind of switched disciplines, more training very important, was protected time. And I didn't realize at that time what it means to have protected time. I just knew that my mentors and other colleagues kept using this term of protected time, salary support. And so it just kind of becomes a mantra for becoming an independent investigator. And now, you know, looking back, yes, that is, I think one of the major advantages of having protected time, of having salary support devoted to your research and, very importantly, to your training. And so the desire for training, the desire to have time devoted for training, not having to teach clinical activities, which wouldn't be a possibility for me, since I'm not licensed.

**Traeger:** The biggest motivators for me were the protected time and the ability to generate pilot data that I would need to move ahead. But really watching all of the senior investigators where I was working conduct their studies. There are so much to learn about leading your own study that I was excited about the possibility of leading my own study, but with a safety net under me in terms of mentorship,

**Question:** How will this award help you transition to independence?

**Bates:** Just to give some background, in my position, I was hired into a tenure track position with a startup package, which was wonderful, so I had a little bit of my time protected meaning that I didn't have to do clinical work to bill for my time for only a short amount of time, three years, and that time goes very quickly. And so if I would not have secured protected time through external funding, I would have had to start working clinically, which it's very hard to write research papers, and even, you know, engage in research when your time is filled clinically. So I would say that one of the best things that I've been able to do as part of my K award is build a research team and build a team of study staff, as well as get experience training graduate students to work on my studies so that I'm not operating as an N of one leading This whole trial. Because it becomes very apparent very quickly that you can't do it all.

**Frazier:** I think generally, an F 31 allows is the ability to focus on that project. So a lot of grad students will often be doing multiple projects for their labs. Some of them are relevant to their dissertation. Sometimes they all are, but oftentimes not all of them are. So it's, I think it's more so being able to have the ability to say no to some of the projects and being allowed to focus on your dissertation projects. So there's that for grad student perspective, again, that's contextually dependent. So from a graduate student

perspective, I think it's more about kind of, you know, I don't know, jumping into it [the grant writing process]and that kind of, it is exciting to feel kind of like, Oh, I'm actually a researcher.

**Milbury:** So protected time, I think where I've landed on is time in medical academia oftentimes relates to effort, and effort for your salary support was something that I was not used to in more traditional university setting. And then coming to medical academia, where everything is about your effort, meaning adding up to 100% and in my position, I was 100% soft funded. So protected time is that, to me, at least, is that the key award protects 80% or however much it covers of your salary, so that amount is accounted for, so then the other unaccounted time is rather minimal. If you don't have a pay award to come up with 100% effort is pretty daunting. You know, if you're on a tenure track position, have some hard funds, hard effort, then that's one thing, but a lot of in positions in medical academia are not on hard money, so they either come from clinical activity or they come just from research funds. And to make 100% on non K award is really hard with multiple R grants and so forth. And what can happen then for junior investigators who do not have a K award, they often become co investigators on other teams, and then they're supporting other people's research rather than their own. Their effort is being paid by someone else, and whoever pays your effort obviously has access to your time, and so you develop their research program rather than your own. Pilot data is key, and it looks like most of us are in clinical research, or like, you know, working with humans, which is usually a lengthy process, as opposed to in basic science. And time here is necessary to collect the data to inform the next larger grant application. And so I would think that in some sense, my progress was a lot slower during my K award because I developed different types of interventions. In addition to the K award, I applied for two R21s which were funded during that time. So over the course of five years, I was able to collect pilot data, which actually informed three funded R01 studies. And so yes, I was slowly progressing. Some of my peers, they got our ones a lot faster. But during this time, I felt like I built a base, a broad base, of pilot studies that then allowed me to apply for our one application. So being able to have the time to build that simply just takes protected time.

**Traeger:** For me, leadership was knowing how to lead the team, negotiate team dynamics, make decisions when there are problems that need to be solved, turning these challenges into solutions and also, typically your career development awards, they don't don't take up all your time. So you really can be thinking about different avenues to take for your next steps, for your projects. And you know, we are also in behavioral medicine, so we do a lot of multidisciplinary research, so this gives you that time to show what you can do to your multidisciplinary colleagues and really have a seat at the table.

**Question:** How supportive was your institution of your career development award?

**Bates:** They provided support through dedicated time while I was writing the award. As I said, they didn't make me do full time clinical work while I was also writing my career development award. I had 80% protected time for three years to write the award, and they also provided startup funds to collect pilot data or attend trainings or things like that that would help me submit the career development award.

**Frazier:** Yes, my institution, specifically my graduate programThey have a lot of resources for their students, because they really like for their students to apply for an F 31 while they're in the program. So, yes, incredibly supportive. There are, grant officers on site for people to talk to There's also leadership within the program that will help you have some of the language for some of the parts of the award application. So I'd say they just had a lot of resources and mentorship

for it. And another thing would be they offer a class for it, to a semester long class where you are actively writing

**Milbury:** So I don't know how to answer this question, really, because I was not a faculty member when I submitted my K award application. I was definitely not tenure track. I was a post doc, and my promotion to faculty was contingent upon receiving a K award, which is not the way it's supposed to work. But speaking of culture, that's our culture. And so I do feel like the institution were so this, my institution is supportive for research faculty. Research faculty are those who are 100% soft funded to receive that type of award. I don't think my institution is supportive of tenure track faculty or clinical faculty to submit K award applications, or, I should say, career development award applications, if you are on tenure track, the expectations are our own ones. And if you're clinical faculty, then they don't want you to have protected time because your clinical faculty. I feel my institution was not very supportive, but most importantly, my support came from my mentor in terms of helping develop the application and then also supporting financially work that was not covered by the K award, depending on the specific mechanism. I think my research allowance was \$25,000 and as we know, running a clinical trial of 25k a year is really not a lot of money to do that. So I did not have startup or anything like that to supplement my study. So my support mainly came from my chair.

**Follow up:** How do you balance the tension between knowing the CDA is best for me in the long run, but then there's this other component, where they're not really championed by the institution.

**Milbury:** Being in a culture where Rs are valued over Ks, and, you know, usually it's because of indirects, because K awards have very little indirect in comparison to R grants. I think the personal, long term benefit still really, really outweighs it. Because when people who being on study sections, having completed a postdoc, having completed a K award, I think really weighs heavily. Five years seem like a long time, but in the big pictures, it's very short and so so being on a K award does not preclude one from submitting ours. You know, obviously for an r1 I believe we have to wait until year three. But so, you know, thinking about that, and I the moment I got the K award, which means I had a faculty position at that point, I started working on an R 21 application. So just having a K doesn't mean that you cannot submit other grants, because if you, if you're 75% covered, you still have 25% that you can submit it for an R, 21 and so you start building this pipeline, and it and you know, it should count more towards promotion and tenure than with having some our grants along the way, too, to me, I am very, very thankful. I would not go back. I would not do it differently. If somebody would have told me, you can choose a K award or an R01, you know, first year assistant professor, I wouldn't have to think about it twice, even though first year R01, everybody thinks of you as a rock star, but that does not last long. That lasts maybe one year, and then you no longer have early stage investigator credit. Getting that second R01 is a lot harder. And what are you going to do? You did not have to protect the time. You did not have the opportunity to collect more pilot data. I think the K award is the way to go, even when people discourage it. That's my personal opinion. Yeah, thank you for answering.

**Bates:** I think it's really important to know about these institutional priorities. one really big takeaway, is just to ask those questions and to learn about institutional priorities, because they can be very different. As I said, my institution really wanted me to write a K, and other institutions do not want people to write a K, even though the goal is externally funded researchers at both institutions.

**Traeger:** there's also institutions that limit the number of Ks that can be applied per year because of the issue with the indirects so it's important to know that. So the one thing that just add to what others have said is the the importance of mentorship, because in Ks and other career

development awards, awardees get protected time, but the mentor doesn't get anything. So you really need mentors who care about this outside of being compensated for it. That is such a key ingredient to making these work.

**Question:** What has been the most challenging part of your career development award?

**Traeger:** it is easy to get into the mindset of being a trainee for a long time, more than you probably need. And so while you're going through your K, keep in mind that you are, you know, moving towards independence, and keep in mind all the decisions that you can make independently. You have your mentors for support, but you also want to be actively taking charge of your work.

**Bates:** I think one of the biggest challenges is getting these funded and developing a project that's the right scope for the amount of research funding that you have, which can vary by institution, identifying training goals that you're going to be able to meet and that are going to be sufficient to launch you to the next phase without putting way too much on your plate. And then always, I think with Ks, keeping on track and on progress can also be a challenge. So you want to make sure that you really are ready to submit your R01 as your K funding comes to a close, which I think, I think all those three things in combination are very tricky, and reviewers are very aware of challenges. And when you're writing something like this for the first time, I think it can be really hard to kind of balance all of that. So that's where great mentorship comes in.

**Frazier:** I think being realistic on not only what you can do for your research proposal, that's a big part of it, your strategy and so forth, but for a for an F award, particularly your training goals, another thing you have to submit for an F award is your applicants background and training goals. I felt so good about the research proposal, but then the training goals, I had such a hard time figuring out how to show them that I would be learning and training you and finding resources to demonstrate to yours that I would be using, you know, this would be good for my training.

**Question:** What has been the most beneficial part of having your career development award?

**Bates:** Well, most beneficial part, by far, has been the protected time and the ability to have time not only dedicated to the study and the training that I proposed, but also to be expanding generally, my program of research at my institution, because, as Laura mentioned, it's a good amount of protected time. It's more protected time than you'll get on an individual ever again, and the 80% of time, if you are realistic, it's enough to cover your project, but it's also enough to give you space to continue to advance your research, you know, outside of the project as well, and so that's been by far the best part.

**Milbury:** What benefited me the most was to keep in the game, to have a job in medical academia. Without a K award, I could have not continued. And for the first time, I would say, now I was recently promoted to professor in September. I think for the first time, I feel like I am no longer the underdog. I was a total underdog coming out of grad school with zero publications. I was on a non tenure track for a long time, until 2018 where I negotiated tenure, you know, without being on tenure track. So it really kept me in the game, like I said, and I'm very thankful for that.

**Question:** Any question that I didn't ask that you think should be asked?

**Bates:** We talked in the webinar a bit about imposter syndrome, and I just wanted to speak to that idea of feeling like an underdog. I think everybody feels more or less imposter or like an

underdog when you're going for a career development award, whether that's a training grant like an F 31 or career development grant like a K and it is somewhat by design. These are meant to be awards for folks who are going for them for the first time, and to build skills. And so one of the, one of, I think, the most challenging things, is staying in the game of applying and continuing to pursue these opportunities, if it's something that you'd like to have, and to know that that feeling of imposter syndrome is a feeling, and I think it's universal, and it can be overcome, right? And to push through it, because it's hard to get these, and there's a lot of barriers, but they can be really worthwhile.

**Frazier:** It's like, even if you don't get the grant submitted or the grant funded or awarded, you could still have that very strong team to work with for a future grant or for a future project. So there's a lot of opportunities even if you don't get the funding. I think that experience of not having it funded and revising it is career development itself. Because I don't know anybody who's ever just gotten all their R ones without having to do that. And so learning that that's just part of the process, and that's what it takes to stay in the game, as Dr Milburry said, or to play the game, I think has been incredibly valuable for me as well.

**Milbury:** it's really important to know who you are, apart from your work, and have resilience in that. Sometimes I catch myself saying I wasn't scored, and I say I meant my application wasn't taught, you know, because the lines can get so blurry between who, what, how we think of ourselves, you know, and the outcomes, and unless we have a really good understanding what we bring to the table as human beings outside of our work, you know that we have so much more value than just what the score of an application is. That is really important for longevity and finding meaning.

More information on F awards: <https://researchtraining.nih.gov/programs/fellowships>