

Title: Perspectives on Leadership: From Starting Your Lab to Directing an Institute

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Sara Weiner: Hello, everyone. Welcome to Perspectives on Leadership: From Starting Your Lab to Directing an Institute. My name is Sara Weiner. I am an industrial and organizational psychologist and a member of Division 14 of the APA, the Society for Industrial and Organizational Psychology. SIOP, as we fondly call it, and the APA have collaborated to jointly bring this Lead from Anywhere webinar series to you, which is free to APA members. Today, we are thrilled to have with us, Dr. Aaron Boes and Dr. Ted Abel.

Aaron Boes, MD, PhD, is a neurologist and neuroscientist at the University of Iowa. He is the Roy J. Carver Associate Professor of Neuroscience in the Department of Pediatrics, Neurology, and Psychiatry. He is the director of the Child Neurology Division and the Center for Noninvasive Brain Stimulation. His research investigates the consequences of focal brain lesions to better understand the functional organization of the brain. Notable awards include the prestigious S. Weir Mitchell Award from the American Academy of Neurology for Outstanding Achievement in Neurology Research and the Early Career Development Award from the American Neuropsychiatry Association.

Ted Abel, PhD, is the Director of the Iowa Neuroscience Institute, Roy J. Carver Chair in Neuroscience, Chair of the Department of Neuroscience and Pharmacology, and the Carver College of Medicine at the University of Iowa, and co-director of the University of Iowa Hawkeye Intellectual and Developmental Disabilities Research Center. He is a member of the National Academy of Medicine and a fellow of the American Association for the Advancement of Science. His research focuses on the molecular mechanisms of memory storage and the molecular basis of neurodevelopmental and psychiatric disorders.

He has been a pioneer in the use of molecular and genetic approaches to define how neural circuits mediate behavior. I'll now turn over the webinar to Dr. Boes, and Dr. Abel will join him after. Thank you very much to both of you.

Aaron: Thank you, Sara. Are you able to hear okay, everybody? I am delighted to give this talk today on how to successfully launch your research lab. This is a topic that I wish I would have been told about when I was starting the lab, so I'm hoping that it's useful to everyone. I'll start with an observation, which is I think that a lot of us are ill-prepared to be leaders as we start our labs. I think our scientific training is really excellent in terms of learning to design studies, do analysis, crunch numbers, write papers, write grants.

I think that's an important part of directing the lab, but it ultimately ends up just being one of your many roles that you find yourself taking on as you lead a lab. There are a lot of different things that you're not formally trained in, and I'll try to cover some of those today. My outline is I'll try to consolidate about six and a half years of experience leading a lab into about 20 minutes of some highlights, some of the things that have worked well, some of the best pieces of advice that I've received, some of the best references that I've come across.

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I'll start off. My organization is chronological in terms of things that are going to come up as you're starting a lab. This one would be like a prequel to starting a lab, which is acknowledging that all labs aren't going to be created equally. When you're picking your faculty position, I think it's really important to pick the right institution and negotiate for things like protected research efforts and startup funds, because those are going to be essential components for success in research.

I think you have to work closely with the hiring department to decide if your goals are aligned, if they're really interested in having somebody do a lot of teaching or a lot of clinical work and research is fine on the side, I think that will be reflected in what they're offering in terms of protected research efforts, startup funds. Once you land your faculty position and you're ready to start your lab, one of the most critical things is selecting what you're going to focus on in terms of a research topic. I think for me, the best thing that I've ever read on this topic was actually oriented to companies and business, but I think it applies equally well to science and setting up a research laboratory.

That is first ask yourself the question, what are you truly passionate about? What's the thing that you are happy to read about when you're on vacation or sitting on a beach? I think if the topic that you're interested in passes those tests, there's a pretty good indication that you're not going to get burnt out and that it's something that will hold your interest for long term. Then related to that, an equally important question is, what do you think you could do better than anyone in the world? I think when you're first starting, maybe you don't feel like you can do anything better than anyone in the world.

I think it's important to have those thoughts early on because ultimately you want to leverage as much as you can, things like institutional strengths, resources that are uniquely available to your institution, access to specific new technology for how to conduct science. You need some factor that's going to differentiate you from all the other researchers who are approaching similar topics. You don't want to do something that a dozen other people are doing, and multiple people are doing better than you because it's going to be difficult to compete with those people when it comes to external funding.

Related to that, what research is going to pay the bills? Ultimately, most of us are required to get external funding to support our research labs, and there are only a handful of organizations that fund research. I think it's worth thinking about if your research is aligned with NIH's priorities, or the DOD, or NSF, any of those I think is fine, but it's important that it's fundable. I think the goal when selecting your lab's focus is really to try to find something that's right at the intersection of those three different circles on this Venn diagram, and that can be your sweet spot for your lab.

I think having that early on can relieve stress in a lot of ways because you're going to have all different opportunities in terms of people requesting your collaborations, requesting you to be on grants, requesting you to be on papers. I think you can filter each one of those requests in terms of how closely it aligns with this core of what your lab is interested in. Does it get you closer to that or does it pull you away from that?

Transitioning to the next topic, I start with this quote that I like by Steve Jobs, which is, "The most powerful person in the world is the storyteller. The storyteller sets the visions, the values, and the agenda for an entire generation that is to come." I think there's a lot of truth for that in science in terms of the most impactful scientist is often the one who's telling the story in the most articulate way and the clearest way. I think that's especially true when you're first getting started, that you have this area that your lab is going to focus on, and you really need to be able to articulate why you're passionate about that topic, why it's important.

That's going to be landing on a lot of different audiences over the first couple of years of your lab. New hires, getting graduate students to join your lab, postdocs, getting funding agencies to contribute millions of dollars towards your vision. Ideally, philanthropists that are motivated by your topic of interest. I think it's worth being very thoughtful about how you articulate the vision that you have for your research. Once you've got your faculty position, you've got your lab, you're ready to start building your team and hiring people.

I like this quote by James Collins, which is, "Get the right people on the bus and the right people in the right seats." I think there's a lot of wisdom to that.

First of all, being patient in the hiring process, I think it's much, much better to have to wait 10 months and hire a great person than to hire a convenient person because you never know how long they're going to be in your lab. Good people will ultimately make or break your lab, especially early on when there's just a few people. I think it's underappreciated, but for early investigators, as they're just getting started in their lab, I think long-term personnel are key.

I think you'll have a lot of people who will rotate through your labs, like graduate students, postdocs, undergraduates, rotation students. It can become a huge time sink if you have to train each individual that goes through your lab and if every two years you're going to have everybody leaving your lab for new positions. Having some long-term personnel who can do the training, I think, is really key. I think you want to try to hire people who are going to complement your team's expertise and your own expertise.

You don't necessarily want somebody who has that exact same skill set as you have, but ideally, you'd have somebody who has a unique skill set that complements your own areas where you're relatively weak. I don't think we can ever expect to know all the different things that come with good science, statistics, and programming and all different areas. If you have any that you feel like you're particularly weak in, then I think hiring for those skill sets is a useful thing. Then people should be in their sweet spot as much as possible.

I think this is a really valuable thing that I learned maybe a couple of two or three years into the role of directing a lab, but I think a lot of people will come to your lab with a skillset that they really enjoy, that they're really talented at. I think it's to your great advantage to have them doing that skillset as much as they possibly can. A good programmer is an example of that. If you have somebody who's outstanding at programming, you probably don't want to use them to also write all your IRBs and recruit your subjects and do all the other things.

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I think a good analogy would be like in sports, if you have a professional football team, it would be nonsensical to take your quarterback and periodically put them on the offensive line or take an offensive lineman and put them in the wide receiver slot. I think similarly, you want to have your strongest people doing the things that they're strongest in your lab. Then points on leadership for the team. I just included a very small number here, but I think creating leaders within your group is a really valuable thing. Ultimately being able to delegate different tasks to individual leaders within your group.

I think that's good not only for you as the PI to have the ability to delegate, but I think it's also good for the employees to have things that they're in charge of. I think there can be a lot of heartbreak in research, as probably everybody on here is aware of, so you might spend hundreds of hours writing a grant that gets triaged or spend two years on a research study that gets desk rejected at your first submission. I think that makes the wins all the more sweeter and all the more worthy of celebration. I think sometimes the trajectory for major projects is just too far out to just celebrate the paper publications and things like that, and the grants getting funded. I think celebrating milestones along the way too.

If you're finishing data collection, if you're finishing data analysis, if you get the paper submitted, I don't think there's ever problems with celebrating these things too much. Then the last one that I have mentioned here, which is perhaps the most challenging, or at least it has been for me is developing the skill and also the willingness to initiate difficult conversations when they need to be had. I think that this ends up being really critical. People are going to go through difficult times when they're in your lab, whether it's health problems or family crises, or any number of things, interpersonal conflicts within the lab.

There's going to be things that come up that which they may or may not feel comfortable talking to you about spontaneously and I think it's important to bring up these topics and discuss them. I think the best thing that I've ever read on this topic is *Crucial Conversations*. It's a relatively short book, but well worth a read. Then budgeting, I just have one slide here, but I think this is something that most PIs are probably ill-prepared to do is to manage a budget for your lab.

I think it's most helpful to meet with your research administrative person who's responsible for managing your grants semi-regularly to review your budget. Maybe every two or three months to check in and see where things are at can be really helpful. I think doing it less frequently than that, you can come up with surprises that you're spending money faster than you think you are or not fast enough, you can actually afford more personnel. I think something to maximize your budget that makes a big difference is recruiting students like graduate students and postdocs from institutionally funded or federally funded programs that are already there, like T32s.

That's a way that you might be able to get a postdoc for two years in your lab who is completely funded and that makes a huge difference in terms of extending your startup package which is the last point on here, which is I would try to hang on to that startup package for as long as you're able to because it's ultimately a great anxiety

reliever, I feel like, to have some emergency funds available. I feel like there's no better one than your discretionary startup funds.

Next is promoting your lab. I often go to this conversation that I had with Nancy Andreasen as a graduate student when she was lamenting on the horrible affliction that Midwesterners have of being overly modest. I think that's very true and she made the point, "If you don't promote your work, who do you think is going to do it?" Ultimately, if this is the topic that you're truly passionate about and that you're going to spend your life working on, you should be the best cheerleader for that topic and you should be out promoting it as well.

Related advice. Oh, I guess in terms of how to do that, I think having a good website is really helpful. I think when you get a paper published that you think is important, it's important to reach out to your local departmental or institutional media people or communication people to get the word out about new discoveries. This was good advice received from our next speaker, Ted Abel, told me this about a year and a half ago, which I did join Twitter, and it's been really important way to connect with other scientists and spread the news on our research. That was excellent advice.

Time management. I think one of the things that is almost certainly going to happen as you're starting a lab is that your capacity for working memory is going to be taxed. You're going to be managing more projects than you've ever managed before, managing people maybe for the first time. That can be quite a process. I think one thing that can be really helpful is being really well organized and how you manage your time. A couple of points on that. Everybody ultimately needs a really good system for scheduling their time. I think this can be individualized. I have my own system that I'm quite preferential for, but by no means is that the only system that would work.

I tend to do a period around winter break where I try to really plan for the year in terms of what manuscripts I'm going to publish, what grants I'm going to submit. Take a step back from my different collaborations and projects and ask which ones are working well, which ones should be cut so sort of year-long planning. Then every Friday I spend 15 or so minutes and write down my schedule for the following week, which is, I think, a useful thing to do. Like I do this handwritten as opposed to electronically because I think that forces you to take the time and think about what is on your schedule and what you need to do to prepare for those things.

Then another thing that's been useful for me is every day when I get to work, I take out a clean sheet of paper and write down all my appointments on the right side of the sheet, and then everything that I would love to accomplish for that day. If I had a perfect day in terms of productivity, what are all the things that I could potentially do and just go down and cross through the list whenever there's free moments in the day that's been useful? I'm never far away from my list at my desk. In my weekly schedule, similarly is like always right there. Then I think related to that topic, really scheduling the things that you value the most first in terms of how you think about your scheduling.

The point there is that, you're really in this for the long haul when you're starting your lab, it's very different than being an intern or doing a two-year postdoc or things like

that where maybe the work is very intense for periods of time, but it's for a short period of time or this is really not a sprint, but a marathon or an ultra-marathon. You might be doing the same job for decades at a time. It's a good time in your life really to think about what are the things that you value the most and make sure that you make time for those. Rather that's taking care of yourself and getting plenty of sleep or exercising every day or things like that or hobbies, family time, whatever that is.

I feel like that's important to get on your schedule first because the alternative is that science will intrude upon those things. I think that's a recipe over time for becoming bitter or burnt out if you're ultimately missing out on the things that you value the most. I think putting those things first and having that as a guilt-free time with family time for yourself, whatever, is a good strategy for the long-term sustainability of your career. Ultimately, I think you'll be a more effective leader if you are not working too much and enjoying all aspects of life.

Final closing message here is that it's really all about the people. I think I've had the wonderful privilege of having outstanding mentors throughout my career, and I think it's a great privilege to be able to pay it forward and train the next generation of scientists. I think if you're going into your lab with that attitude that you've benefited tremendously from great mentorship and you have the opportunity now to pay it forward to people in your lab, I think that's a good setup for being successful and leading your lab. With that. If you're tremendously successful, then you're going to end up leading a research institute like Ted Abel. That's where we'll turn to now and how to lead a research institute. It's all yours, Ted.

Ted: Thanks, Aaron. I didn't look at your slide presentation before, so I didn't realize my important quote about Twitter, but good to see that. It's interesting too because you'll see that I'll actually end with a slide that actually is going to turn out relate to Aaron's first slide on stumbling. We stumbled into this together and it's very interesting to have a chance to talk. I'm hoping that we'll have a chance for questions at the end and for discussion. What I'd like to do in a short period of time is tell you about the Neuroscience Institute that I run, because it's a little bit different than thinking about your lab or a department, and some of the highlights of what we've accomplished in the six years that we've existed.

Then I'd like to talk a little bit about my leadership style and my leadership journey with the focus on a set of books that's going to include *Crucial Conversations* of it that Aaron Boes has mentioned. Let me share my screen here. I should also mention I'm a fellow of the APA in Behavioral Neuroscience in Division 6. It's great to have the APA having these broad events involving people from various divisions, which is terrific.

Sorry, I'm somehow on the second slide. Hang on. There we go. When Aaron mentioned Twitter, I added my Twitter account to the first slide. I am @tedabelneuro on Twitter. Feel free to follow me. What you'll find if you follow me is from yesterday is, firstly, it was the opening day of the baseball season, which is I enjoy. Secondly, I post monthly notes called @UIowaNeuro Notes. The latest one, I think you might find interesting, it's on failure in science and a discussion with another professor at Iowa named Kumar Narayanan.

The Iowa Neuroscience Institute was founded six years ago, and our focus is on fundamental research to address as many as we all know, the devastating impact that psychiatric and neurological disorders have on individuals, their families, and societies. We're focused on revolutionary discoveries in fundamental neuroscience to translate these understandings into how the brain works into clinical treatments for disorders of the brain and nervous system.

Aaron Boes is an understated Midwesterner, but I will say he is someone who is doing this, taking fundamental work in what we know about transcranial magnetic stimulation and using it to develop better treatments for disorders, ranging from depression to schizophrenia to autism. Now, the Iowa Neuroscience Institute was founded with a transformational gift from the Roy J. Carver Charitable Trust of \$45 million and significant support from the Carver College of Medicine. We're in a building called the Pappajohn Biomedical Discovery Building. We started on the first two floors of this building. We've now expanded to the fifth floor with a new center for neurodegeneration.

Over those years, I've had a lot of lunches and a lot of dinners and a lot of flights to various places, meeting with potential donors. We've raised nearly \$65 million in philanthropic support in addition to the \$45 million. Our faculty members, as Aaron mentioned outside research grants, we bring in over \$90 million in grant funding each year. Each year we bring in really the amount of money that we've been able to raise to support the institute. We have 120 faculty members, and the important thing is we span seven colleges. We go from the College of Education to the College of Medicine, and from individuals that include philosophers and mathematicians, psychiatrists, neurologists, neuroscientists, and physicists.

We've been focused on hiring, we've helped hire 26 faculty members across the university. Our first faculty hire is a woman named Krystal Parker here. Now, she's coming up for a tenure this year, and she trained with Nancy Andreasen, who Aaron Boes mentioned, a transformational psychiatrist at the University of Iowa, who won the National Medal of Science for her work on the understanding of the brain changes in individuals with schizophrenia, and Kumar Narayanan, a cognitive neurologist here.

We've established research programs of excellence, one of which supports Aaron Boes accelerator grants, as well as two cores, Neural Circuits, and Behavior and Neurobank. We've also done a number of outreach activities. One of the great things about neuroscience is that it really spans the world and spans disciplines. We help develop a new undergraduate neuroscience major with Josh Weiner here at the Iowa State Fair, actually in a booth on brains and neurons.

We've established a postdoctoral fellowship program, outreach and workshops, and a big 10 neuroscience seminar series extending across the university, but a number of workshops and scientific workshops, but also writing workshops. One with Kay Redfield Jamison who's in a tremendous work on *An Unquiet Mind*. Describes her own experience with bipolar disorder and even Rosanne Cash, who came to give a concert here in Iowa City and wanted to talk about her experience with a brain tumor.

One of the things that I think is important is beyond your own lab and thinking about establishing that, is realizing the connections you can make in terms of collaboration and community, and those connections include to some very influential individuals. This is a photo with Tom Harkin. Tom Harkin is the person responsible for the IDEA Act. Our son, Seamus, is on the autism spectrum. His education was possible because of the work that Tom Harkin did to enable individuals with disabilities to have education as typically as possible.

What I'd like to spend really a few minutes talking about is leadership perspectives. There's a lot of different leadership perspectives, and one of the books to read to think about this is a book called *Primal Leadership* by Daniel Goleman et al. in the middle here. When you think about leadership, obviously many here know more than I do about it, but a lot of people, and I think some people think leadership consists in telling people what to do. To me leadership consists in bringing groups of people together so that they decide what to do, and that they do that feeling good about the next step in their lives.

That's one of the challenges that's especially true in a neuroscience institute because I'm not directly responsible for anybody's performance review or for faculty's reviewing their tenure. I'm really here to create an interdisciplinary and collaborative community. That community starts with building a sense of belonging. As an individual, it really benefited. You may see behind me some baseball things, and it was really, my leadership started as a catcher playing baseball. One of my heroes growing up was a person named Elston Howard, the first African American to play for the Yankees.

He wrote a book called *Catching*, which is also behind me, that talks about the catcher, as covered up in pads but the knowing is person on the field who before these various ways to communicate remotely, was really trying to keep track of what the next pitch should be and where people should be on the field. What was really influential to me was that at Swarthmore College as an undergraduate, where when I was there, all of the committees ran by consensus and I would serve on committees.

I remember one particular committee where we were changing the curriculum of the college, and I was one of 200 graduates on a committee headed by the provost. We would be there forever if one of us didn't think we should be doing something. What we came to as a consensus decision is still now some 35 years later, the curriculum, they're just beginning to look at it again. It's been quite successful.

This idea of focusing on collaboration and developing communities and developing consensus is something that has really driven me and continues to drive me. I think it's one of the biggest challenges that we face. I think as scientists, we often think that we're off making these really sophisticated findings, but we do those as a community. We're able to do those because of the students in our lab, because of the resources that we have at our universities, and because of the people that have come before us to establish ideas and thoughts.

Now, as I've moved into this position in senior leadership at the Neuroscience Institute of Iowa, I actually worked closely with an executive coach which was really a tremendous experience. I think as you move up in leadership that I think is a very

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important thing to do. I had something important that happened to me, and it happened to me now about 15 years ago. That was a physician who instead of prescribing medicine to reduce my blood pressure, at first, said, "You need to go to a mindfulness-based stress reduction workshop."

Hence this book, *Wherever You Go, There You Are* by Jon Kabat-Zinn, and another book called *Full Catastrophe Living* and learning about the importance of mindfulness meditation and how to focus one's attention has been critically important for me as a leader. The other thing that has been critically important that really my executive coach really pointed to me is focusing on moods and focusing on emotions.

One of the things that I started doing during the pandemic, and I had done it before, but I really started doing it more in the beginning of the pandemic when we were all on Zoom and we were very much at sea, was to have what were called touch-base meetings, but were actually emotional check-ins and we would, all people that wanted to join would join. We still have one with the INI faculty, and there's about 20 people that join that pretty regularly. Most of the meeting consists of people telling, really just sharing the way they feel at the moment. It takes a little while for people like myself that are actually trained as a molecular biologist to stop saying, fine, or stop saying tired, or stop saying stressed and say anxious, excited, in other words, that are actually moods. That's really, to me, been one of the most effective ways to be a leader and to create community. That is to focus on how people feel.

In my office, there's a quote from Maya Angelou that is here at the bottom which is, "I've learned that people will forget what you said, people will forget what you did, but people will never forget how you made them feel." To me, that is the really cardinal rule of leadership is to think about how people feel now and how they want to feel in the future and work to guide the group, that person, that individual, the organization to that feeling that we all desire. A lot of that desiring focuses on belonging and being proud of the community we live in.

There's two other tools that have been crucial to me in leadership. One is over here, which is thinking about personality types. There are a number of ways to do that from more complicated things that have a whole bunch of letters that I can't keep track of, to a more simple mechanism called the Enneagram, which only has nine personality types. That seems complex enough for me and that's been very important because you understand where yourself and where others are coming from and where you would like to be headed. Understanding more about yourself is the first step in being a leader and realizing what your mood is and then you can identify that of others around you.

Then to echo what I said about crucial conversations, this is a book that really should become a more senior leadership, even as a lab head, something that you really focus on and think about and work with others. In particular, there's a process in the *Crucial Conversations* book called the MORF Process, which stands for Me, Other, Relationship, Future. What you want to think about is how you feel and how you want to feel, how the other person feels and how they want to feel, what you want to feel about your relationship, and how you want to feel and go forward in the future.

Ultimately, connecting about your emotions enable you to actually change challenges and ideas into actions, actions that have really clear statements of who is going to do what by when, and how it will be evaluated and focusing on that. You might have heard him talk about a lot of things about mindfulness and paying attention and moods and everything else. All of a sudden I'm saying, who's going to do what by when, and how will that be evaluated? But you need to get there. You don't need to get there in a text or an email or even one phone call or one discussion.

It takes time and it takes connection and personal connections. Those connections can happen in various ways. They don't have to happen in person, they can happen across continents. They happen by paying attention, by being present, and by thinking about how you feel and how others feel. Just like to end on, and hopefully, we will have significant time for questions, which will be great with a quote that really drives me. It's interesting that we both wind up, both Aaron and I wind up stumbling. He started with stumbling and I'm ending with stumbling. You might have thought this would be leadership and leadership would tell you exactly what to do and how this was all going to go.

I remember when I was younger, being very frustrated when I'd be in a meeting and some senior person would say, "Well, we'll be in touch about the next steps." I would say, "Well, next steps, we'll fix this. Do something, make it happen," but honestly, we are thinking about next steps and obviously we need to have a vision of the future. A bright shiny future is the most effective way to lead people there, but we do that a step at a time and we do that by stumbling.

We do that by always asking to me the biggest questions and seeking the newest ideas and cutting-edge technology. Sometimes you'll use that technology and it will simply not work. One of the microscopes that we tested six years ago, quite literally the stage fell off of it literally didn't work. They were not quite ready for prime time. A couple of years later, they were, and this is all driven by a quote by Francis Crick, who with Jim Watson and Rosalind Franklin were the parents, the father and mother of the structure of DNA. What Francis said was, "It's true that by blundering about we stumbled on gold, but the fact remains, we were looking for gold."

To me, it is communities that enable us to seek gold. It is creating a sense of belonging and emotional connections in those communities that enable us to progress, so thank you for the time and for joining us from around the world. I know I saw folks from India to Canada to other countries as well. Thanks so much for joining us and I think now we hopefully have time for questions that we can get started with. I think Sara, you're going to join us now and Aaron can come back in, hopefully, that's okay. Everything going okay so far?

Sara: That's great. All right, and we have some very related questions. We have some that were submitted prior to the webinar, so thank you all for submitting your questions and some are in the Q&A now. Please put your questions in the Q&A, should you have any additional ones. There were some questions that were more technical in terms of how you fund a lab other than obtaining grants and a related question, what opportunities there are for people in low-resource settings to

collaborate with colleagues who are in well-funded settings? Another question had to do with how you find philanthropists. Where you get the money?

Aaron: Good question. Should we both comment on that?

Ted: Yes, go ahead, Aaron. You start, I follow.

Aaron: Yes, I think in terms of the standard approaches for funding a laboratory at least for the type of research I do, which is biomedical, it's often going to NIH a chief funder of research. In a best-case scenario, when you're hired, you'll be hired with the goal of starting a lab and you'll have some startup funds in order to do that. In a best-case scenario, I think there are a lot of foundations related to funding research that is worthwhile seeking out amongst colleagues.

Like generating a list of the different organizations that fund related research and then spending some time early on in your career going through those websites and finding out what the funding mechanisms are and when they're due and things like that. Ultimately you can take a similar grant and submit it to multiple different places as you're trying to seek funding. Places like Iowa, we've got the Iowa Neuroscience Institute, which has some institutional funding opportunities as well, which can be a great way to get preliminary data in anticipation of submitting for a larger grant and then I don't know if you want to talk about philanthropy and other things related to that, Ted.

Ted: Yes, sure. Let me just also comment on the funders a little bit, other funders like grant agencies. One is to really think about collaborations. You don't have to live your life alone in your ivory tower or your office at home here. You really, it's the collaborations that I think often enable us to make connections. When I see criticisms of sometimes of grant projects, what the people are missing is an appropriate collaborator to really help them go through. One of the things that we do for all of our junior faculty and now for our mid-career faculty is have mentoring committees.

We really haven't exactly talked about that in these two talks, but seeking people, you could hear from Aaron, the people that he's turned to in his career that have advised him. Similarly, I have a group of people that I call and talk to and some folks that call and talk to me to get advice, and so seek mentoring. When you seek mentoring, so I tell people in my lab, the last thing you want to hear from a mentor is, it sounds good. What you want to hear is, and I don't know, maybe this would be better or why don't you connect with this? And so find people that will tell you have no idea what you're saying and do something else.

Don't find yes folks, find people that will be critical and that you respect with mutual respect that you can do that, so the mentoring committee thing I think is really important. Philanthropy, we've had a really I think extraordinary success with philanthropy. I just did very little philanthropy before I came here. Philanthropy is about relationships. It's not about asking people for money. It's about developing relationships and it's about being a trusted voice. It's about being a person that when people think about neuroscience, they want to ask your opinion or they have connections to learn about something new about their child.

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You have a child on the autism spectrum and connecting about that. I think what people think too much is that philanthropy is about asking people for money. It's not let's make a deal show. It's about making connections. Similarly, a lot of the more relationships we haven't talked about at all with broader communities like a board of regents at a bigger university setting or even in political settings. Again, it's about individual relationships. That's a theme I think, really clear from what I have to say. That's the goal for philanthropy. Then people are connected, and they want to support you and that's what makes a difference.

Sara: Those are great suggestions. Another one, related questions, several that came in are some techniques from maintaining engagement and commitment and focus from everyone who's associated with the lab. Those would include people who were remote. We talked a little bit about this before the webinar started about how things have changed. We have people today in this webinar from all over the world, as you noted and there were questions about your thoughts on how to best build a lab of diverse professionals, related questions on working with those from different cultural backgrounds. Also, when your lab is part of a global collaboration. Remoteness and global work and also maintaining engagement from everybody in the lab and associated with the lab, regardless of where they sit.

Aaron: What do you think, Ted? The thing that jumps out to me is maintaining engagement. Because I feel like that's one of the big challenges especially over the last couple of years where a lot of people are working remotely. I can comment on that. I think one of the things that's been really helpful is just having regular check-ins. A couple of times a week to find out what people are working on and if they're enjoying their work, if they find it challenging, if they're making progress and if they're not, check in and find out why. As opposed to letting these things go on for too long, I feel like that's one of the mistakes that can be made is hoping things get better and not having the conversation about how things are actually going and how they might be made better.

Maybe the person's on the wrong project or maybe other things are going on. It relates to what I was talking about in terms of having the willingness to initiate difficult conversations. If somebody's not very engaged in the lab, but they should be and it's their responsibility to do that, to finish a PhD or be successful as a postdoc, I think you need to have a conversation, find out why and just be open about your perception of how things are going. I found that that was a difficult thing to do early on and it's gotten easier over time and it's almost always a valuable conversation to have even though they're the ones that at least look forward to starting in terms of engagement.

Ted: Well, I think also everybody respects you being interested in them and what they're about. What I talked about thinking about people's moods and how they feel as an important way to build engagement because if you have that respect of really wanting to know how somebody feels, not just fine, that makes a huge difference. It's critically important that we convey, I don't know if this comes across at all from me. I hope it does. I know it does from Aaron, that we convey our sense of excitement. I am doing everything I ever wanted to do, ever dreamed possible. It's just incredible to me. The excitement is the excitement of discovery. It's the excitement of failure of not knowing that how something works, but then figuring it out. One of the things that

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we don't do in the world right now is convey a sense of wonder that we are at amazing position of thinking about challenges and problems that we find really interesting and important. That is valuable and unusual. We should convey that excitement to those around us.

For my own personal engagement, what I haven't mentioned so far, I mentioned mindfulness, but you don't have to start and become like a Zen master. There's a very simple thing to do and that's just get off your chair and walk around, and that's something that you can even have people do it. It's really the number of times I've assigned somebody to go for a walk, even when it was on Zoom. If they're not on Zoom, you can actually do a meeting while you're walking. They don't have to be in an office and talking blah, blah, blah. You can actually just go walk around. Don't do that when there's a tornado warning in Iowa the way there is right now. In general, you could do it.

One last comment for me about diverse communities, and that is a thing we did. The University of Wisconsin has a culturally aware mentoring workshop series that we've done. The first workshop and that was very, very interesting, it was called Culture Box. Everybody brought something from their culture and their background, a physical object that impacted them and that was crucial for them. We did another thing later on where we had like a dinner where people brought foods that were a culture box. That is actually a really impactful way to do something. You can do that on Zoom, you can do that in person. You get surprises, real surprises from that.

Sara: I love that idea. That's a great way of respecting people's cultures and really getting to know each other as well. There were other questions in the Q&A today also about how you established that sense of community. A few people asked specifically about working with undergraduates, including your thoughts on the ethics of not paying undergrads and also how to best lead unpaid undergrads and ensure their accountability.

Aaron: I imagine we'll both have things to say on this, because I know Ted's been a big advocate for incorporating undergraduates into lab training. From my perspective, I've had several undergraduates in the lab, and I think it's been positive. I often encourage people to join the lab as part of a research course, which is an option at the University of Iowa, so they can get semester hours for testing the waters in a research lab and seeing if they take to it. That's been really nice because ultimately if somebody's brand new to research, it's probably more of a challenge getting them trained up to do something useful than it is, like a huge benefit from the lab. I don't feel bad about having them do it for course credit as opposed to paying for them.

Then people who enjoy that semester on research and they learn some valuable skills during that time, maybe they stay on as a research assistant is one of the ways that we've handled it. There are a lot of great programs as well that fund research during undergraduates and I know Ted has been responsible for some of those.

Ted: Yes, thanks for that question. I'm glad you chose it. Really, that's one of the things that I am most proud of in my career is my academic offspring. That includes undergrads as well as graduates and postdocs and now some faculty that I'm

mentoring. I've mentored over 100 undergraduates in my lab over the decades. One of the things that I think, again, it connects to this idea of excitement, and I was also benefited critically from being involved in research from the beginning at Swarthmore when I was an undergraduate. It really is about bringing them into the community and having them be a real sense of the community. If it's course credit or some other things, it's fine.

I have a problem. I don't think that I don't do things in my life to get credit for it. I do things because they excite me, and I understand that we need money. They're not saying we don't need money, we need money to live. People have jobs, they need to have a work-study job. We need to facilitate that. That's not what I'm saying. I'm saying at the end what we have, again, to get back to the sense of teaching students this sense of excitement. What I do really is to really have the undergraduates come in and just be part of the lab culture and learn that a lab is a sociological thing. You guys know this from the organizational management, and we think about it as like scientists at a bench doing whatever or at a magnet or at a computer, but it really is that.

Teaching them about that, to me, I actually find that the undergraduates that really are successful in the lab, that becomes their home. They come and do work there, they really become a part of it. It's an opportunity to find a second home and to really connect with what excites you. The undergraduates can be empowering and can really give energy to a lab. I was at the University of Pennsylvania for 18 years, and when I was leaving Penn, coming to Iowa, I actually, I probably shouldn't say this on a webinar, the first person I told formally was actually a woman who was an undergraduate with me, who was an assistant professor, five offices away from me.

Being an undergraduate in my lab, getting a PhD, a postdoc and now a professor, she just got tenure and how can I leave her? I was like the biggest challenge, not everything. I've got to talk to my wife obviously, but that was like the thing, how can I leave her from this? They can really have more impact than you think. The undergraduates have more of an impact on them than we might imagine.

Sara: Yes, that's great. Some people are asking also going back to specifics of time management, and, Aaron, you talked specifically about this as well. How do you manage competing priorities? Any strategies for choosing or eliminating them? A related question of recommending any online software freeware tools for time management or task management or workflow on projects. It's a very tactical question there.

Aaron: Yes. I think for me, I don't use any fancy software for time management. I literally use a sheet of paper [laughs] and that's just worked well for me. I like the slowness of writing things out every week. I guess I use an Outlook calendar as well. Ultimately, it's transferring from an Outlook calendar onto a white sheet of paper for what I'm planning to do that week. In terms of competing priorities, I guess for me it's useful to have a direction to what you want your research lab to be about. Then think about if the things that you're being offered bring you closer to that thing or further away from it.

Because I think you'll be asked to do a lot of things that bring you further away from your goals as a junior faculty member, whether it's joining committees or being involved in research that's relatively peripherally related to you, that would take time away from the things that you most prioritize. I think ultimately, almost everybody who's making those offerings to you are doing it with the best of intentions to engage you in their research and they want you to be successful.

I think just being very honest about what your priority as are and how those things align with your priorities and being comfortable saying no to all kinds of different things and providing some justification why, you don't want to just say no across the board to everything, but if you feel like something's going to be a major time commitment and it's going to be something that doesn't set you up for success, I think it's fine to turn things down. That's a hard thing to learn early on in a faculty position as well.

Ted: I'm still practicing my ability to say no. I'm slowly developing it, which is part of my challenge, but I'll make a couple of comments and then I-- What I actually do, I have really complicated schedule and thankfully a senior leader here told me what he does, which actually really makes a big difference. This is overkill for somebody starting a new lab, but not exactly. Dale Abel is his name and he's now at UCLA, is chair of Internal Medicine, which is the Department of Internal Medicine, is the biggest one in the world. He ran a center in a department in a large lab. What he said was to really block times in terms of not just what you're doing when, but that this is a time when you're in the department. This is a time when you're in the institute.

He said, "I'm not a clinician," but he said, "What a clinician would do is have a day a week that they were at clinic." For you, that's the lab. Wednesdays are my lab day and it's even so far here on justice, an administrator, but I'm actually in jeans on Wednesdays because that's what I'm doing. It's lab day. I also have time blocked, now that winds up getting messed up. Because the other important thing is to be able to write and to give feedback. One of the problems I have is I'm slowing my lab down in terms of editing manuscripts and things. I have a block. The blocks are basically a half-day block and except for Wednesday, which is a lab day.

I think we don't always think of ourselves as, Aaron is a clinician, so this isn't so foreign into him, but PhD is a little foreign to have everything scheduled. To me, that's good because then you can know when your time is free. The other thing, I think we spend an awful lot of time making an awful lot of noise with texts and emails and I've increasingly come to say, "Let me give you a call or let's get these four people together and meet about that," instead of having 57 emails going around. You can manage your time by focusing your time.

Then the one thing that we haven't talked about that I actually started doing about 10 years ago when I was about halfway through my-- I was a professor at that point, and that is having monthly progress reports from my trainees. They're monthly written progress reports that have sections about their accomplishments and what papers they're working on, and what they're planning on. It has data in it and it's on Google Drive and it was on Slack. We still use Slack a little bit, but there's actually

shared written documentation of what accomplishments and plans are on a monthly basis. That makes a big difference.

Sara: Yes. The other thing I might mention too is two things and I put it in the chat. Siop.org has a lot of resources and publications, S-I-O-P.org, that can help with the management of these kinds of things that are coming up. The other book that I'd recommend is *The Surprising Science of Meetings* by Steven Rogelberg. He has some very specific suggestions of how to decrease your time in meetings and spend more time productively. You can check that out as well. I'll put that in the chat in case you guys didn't see that.

Another couple of people have asked about recruiting lab members, whether they be students or postdocs, faculty, to choose your program over some other very, very competitive programs. Can you talk a little bit about recruiting?

Aaron: You want to start, Ted?

Ted: Yes, sure. I'm happy to start. A lot of that is again about relationship building and connections, getting out and about. That's obviously been hard during COVID, but you'd be surprised. People talk about how hard it is to get a postdocs and grad students and it is becoming, it is difficult and technicians and everything else, but you'd be surprised at some of the most successful people, some of whom are very, very senior. Where do you find them when you go to meetings? One of the big meetings for me is a Society for Neuroscience, and that's a meeting of like 30,000 people.

There's a group of older faculty members who are at the postdoc sessions all the time talking to people, going around, talking to grad students, talking to postdocs. Showing your interest, showing your excitement is the way to get people connected to you. You wouldn't think that somebody's in their upper later 60s, a member of every national academy that there is and winning various prizes and they're at the postdoc sessions at 8:00 AM in the morning, and then that's what you do. You got to get out and about. To me, that's a really big thing.

The other is to-- I think Aaron said this well, but market yourself with Twitter. I think we also do this on bio-archive, posting our papers when we submit them to bio-archive, and we tweet about them, and we get feedback from them. One of them we got a paper we didn't know about someone suggested to us and we were able to put it in a revision. It's good for the science, it's also good for the connections.

Aaron: I don't have much to add to that. I think recruitment very often comes from relationships that are already existing. If you're visible in your neuroscience community, that can help a lot. If you're active on Twitter and you have people who are doing similar research who follow you, I think that can be really helpful to get the word out for recruitment as well.

Sara: We just have a couple of minutes left, but I do think this is an important question, which is not just about the funding, but several people asked how to get started in setting up a lab including a lab that may be collaborating globally or working virtually with others.

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Aaron: Yes, I guess I'm closest to that in terms of starting a lab. I think the best possible scenario is that you're hired into a position where your boss wants you to start a lab and be successful in that lab. I think that's the very best-case scenario. I'm sure there are a lot of people who already have a position and want to carve out research time. I think that probably relates to a need to have conversations with the people that you work with and find time to protect for research. Because that's probably the biggest factor is, I wouldn't consider any faculty positions that didn't allow 80% guaranteed research time for the first three years.

Because I knew I would need at least that much to become competitive for external funding. If you don't have that and that's something that you want, I think it might be time to start negotiating within your institution, maybe even outside of your institution as well.

Sara: I wish-- Oh, go ahead. Dr. Abel, we're almost out to time.

Ted: Yes, I was going to say two things. One is you're not going to start a lab without committing yourself fully, completely, absolutely, and entirely. You're unfortunately not, it's going to be very hard to do with work-life balance. Okay. When I was starting my lab at Penn, I looked back and for the first six years, I submitted a grant every two months. When that started, that was me, not a group of people, it was just me. That's what it takes, and it takes that commitment. Fortunately, or unfortunately, not everyone is at that stage of their lives or their careers, but it really takes that time. The other thing is you really need somebody, you will think I'll get a grad student, will build from a grad student. You really need somebody who's going to be in the lab as a lab manager or researcher. Aaron, you have that, I have that. When I moved to Iowa, the first thing I did was identify someone who was a lab manager, and she started three months before I started to get it rolling. You need somebody who's the boots on the ground beside you. Trying to build it, it's very difficult to build it with just undergraduates or grad students. I know many times resources mean that, but it's very difficult.

Sara: I am so sorry, we're out of time. We could keep going here. Thank you very much to Dr. Boes and Dr. Abel for this outstanding presentation and the great discussion. Thank you all for your questions. Please fill out the survey. We really want your feedback and please join us for other webinars in the *Leading From Anywhere* series. Thank you, everyone. Have a great rest of your day.

Aaron: Thanks, Sara. I appreciate it.

Ted: Bye-bye.

[01:01:07] [END OF AUDIO]