

## Infrastructure Audio Transcript

Pete Seidenberg, MD: Welcome to today's session, and thank you for joining again for the Family Medicine Department Chair's Research Curriculum. Today's session is on utilizing infrastructure to increase research in your department.

Pete Seidenberg, MD: I am Dr. Peter Seidenberg. I am the chair of the Department of Family Medicine at LSU Health Shreveport School of Medicine. I am also the chair of the Research Development Committee for ADFM. I am going to ask each of our distinguished panel members to introduce themselves. So, Irf?

Irfan Asif: Hey everyone, my name's Irfan Asif, I go by Irf. I'm the chair of the Department of Family and Community Medicine at the University of Alabama at Birmingham. I was also former chair of the Research Development Committee for ADFM, and I'm excited about the work that Pete's doing for us today.

Mark Johnson: Good afternoon. My name is Mark Johnson. I'm Professor and Chair, Department of Community and Family Medicine at Howard University. I've been here at Howard in different capacities since 2011.

Anthony Viera: Hi there, thanks, Pete. Anthony Vieira, I'm Chair of Family Medicine Community Health at Duke University, where I've been since October 1, 2017, but who's counting? Prior to that, I was at UNC for 13 years. Pleasure to be here.

Pete Seidenberg, MD: Excellent. Well, thank you all for participating today. So, our panel today is composed of chairs representing departments with varying levels of research productivity, and so we've all been involved with departments that have had low to high levels of research productivity, but for the sake of this panel, so that we can offer the viewpoints of the three different levels of research productivity. Irf will be representing the low research productivity department, Mark will be the medium, and Anthony will be the high research productivity department. So let's, let's... let's jump on in. So, Irf, can you tell me...about those different levels of...research productivity in a department? Are they hard stops? Is there a continuum? What...what's that about?

Irfan Asif: Yeah, so I've had a chance, as you mentioned, to help lead research within several different departments, and to me, as you outlined, it's really a continuum of research that you would see from what might be considered a low, medium, and high research-intensive department. When I think of what any department should be able to do, I sort of think about the needs of a residency program and students, as well as what faculty might be able to do to help with their academic scholarship. And, things that you might be able to measure include publications, for example, abstracts, and poster presentations. I think, when you think about what a medium or, what a high-producing family medicine department might do in research, people might start thinking more about, grant funding and output related to extramural funding

from sources such as the NIH, CDC, AHRQ, and others. But again, for any basic department, my hope is that you'd be able to meet the goals of thinking about publications, posters, abstracts, and even some publications that might be able to help the trainees, both students and residents, as well as faculty.

Pete Seidenberg, MD: Excellent. So, Anthony, what...when you became chair, what were some of the key questions you asked to help you assess your...your department's current research activity.

Anthony Viera: One of the first things I did was meet with my Vice Chair of Research, who, who was, was fortunate. He was willing to stay on as Vice Chair of Research. And really, it's... I kind of placed him as Vice Chair for Research and Scholarship, which kind of reiterates Irf's point that you know, there's a spectrum, and scholarship can start as clinical review articles, or EBM reports, working with FPIN, things like that, all the way to federally funded grants. And that spectrum, as you move across it, requires greater infrastructure, as I'm sure we'll talk about. So what we did was, we started, basically, what was our goal for research for the department. And to be quite honest, when I came on board, we were a little bit starting... a little bit de novo again. Several of our researchers had moved on to different departments, or moved elsewhere. So, we got together and we thought, what do we want to do? How do we want to invest in research for the department? And the first thing we thought of is. What kinds of folks we wanted to recruit. And that leads to a question of, do you want to recruit all the same types of folks doing the same research topic, same research area? Or do you want to diversify, recruit talent and the things that fit within the department, and with the idea that they would network outside the department as well as within, but that they would not rely solely on other faculty within the department. And then the other question really is, what blend of PhD versus MDDO researchers would you want in a department? So those are the first kind of things we tackled as a team.

Pete Seidenberg, MD: Excellent. Mark, were there other questions that... that you look at as well?

Mark Johnson: Well, it was said... Implicitly, but, basically you want to do strategic planning. You know, the same way that you plan for clinical expansion, for educational reform, you know, you want to do planning for research. And, if you think of the...term...when I think of the term infrastructure. For this purpose, the most important thing you have is people. So...so defining the type of people you want, how they're going to interact with the people that you already have, as well as other...other researchers in the institution, are all considerations that you're gonna think about.

Pete Seidenberg, MD: Excellent. Excellent. So, when I think about infrastructure, you know, I hear the terms internal infrastructure, external infrastructure to the... external to the department. Other than the people, Irf, can you think of other types of internal infrastructure.

Irfan Asif: Yeah, you know, when I was part of a department that was trying to just start

research, one of the things we did was to try to figure out what the institutional goals were, and for that particular institution, they really were promoting publications as a metric for success within the institution, so we then thought about that and how we might be able to contribute in the publication space. In order to have publications, you need to be able to, to do research, but in order to conduct research, you need, some infrastructure and, sort of core and basic to what we were trying to do, was the idea of making sure that we did QI projects, and then figuring out, once we were going to be presenting projects, making sure that we had IRB approval. So having some regulatory expertise within, your department can certainly be helpful. We also had someone who was able to take on some different roles, you could term this person as a grant writer, but that person may not necessarily do just grants. They may have an English background that could be really helpful in trying to think about how to write abstracts or manuscripts and how to teach that to trainees and faculty. We then took these two individuals, one who had expertise in, again, IRB and the other with writing, and made what we called a scholarly Activity Committee that allowed us to have a curriculum for residents. So we... we talked about, let's plan a project in year one, let's try to think about how we execute that project in year two. And then how we might be able to, present and potentially publish in year 3. So I think the idea of having a timeline and some people around you that fits within the structure of your program can certainly be some resources that you think about. Much of that work was not necessarily extramurally funded, so you didn't have to think about large-scale funding in order to get many of those projects done.

Pete Seidenberg, MD: Excellent. So, so, in addition to...types of people, you also created a system, an infrastructure system, to facilitate scholarship production and research. Excellent, excellent. Are there external department resources in the terms of infrastructure that you can tap into.

Mark Johnson: Well, one of the things that I may add on, based upon what was previously said, is there are... there's going to be things that you need that you may not have in the department. If the department's big enough, then you need to have a biostat capability, a survey methodologist, you know, things like that. But often, you don't have to duplicate that if it's available elsewhere in an institution depending on the layout of the institution, you know, you may have a department of public health or preventive medicine that has all these people with methods expertise, and you can work with them. You can even work with people from the College of Nursing, particularly along the lines of qualitative research. So, you should really do an overview of what's available at your location, so that you don't bring in resources into the department that you can collaborate with elsewhere in the institution.

Pete Seidenberg, MD: Excellent.

Anthony Viera: Yeah, to build on... to build on what Irf and Mark said, I would add that the people are the first thing. Making the connections, your network at your place, and finding collaborators is key. I've been fortunate that I've been at institutions that have been large enough that have, you know...external to the department's central resources for research, for

scholarship, such that those are things that are centralized. As Mark said, you don't have to get those things into your department, you have them available at your university, and that's things like Grant Support Office, Office of Sponsored Research, Biostatistics Department...big, you know, data science expertise and pre-award management, award management, post-award management. Those are the things that an institution needs to bring so that departments can be successful. And then departments can have their own clinical research units which have people in them that are the bridge to those centralized services to make sure that we're staying in compliance, we're dotting the I's, crossing the T's, we're getting things in on time, we're following all the regulations, IRB submissions are in on time. So that's kind of the balance of external and central and internal resources.

Pete Seidenberg, MD: So...there's a lot of resources that you may have in your department, or maybe external to your department, but if there's a faculty member who wants to start pursuing research and doesn't have a lot of experience of research in your institution, or they're new to your institution. Sometimes... A resource map is beneficial, where you can actually say, look, here's the different resources where they are. This is where you go for this, this is where you go for that, and you keep that updated. And that way, people... Spend less time searching for help and more time actually obtaining help. That is...that has been very helpful for me and my department. I've also been lucky in my institution, where we have a clinical trials office, where a lot of that support of biostats, pre- and post-award support, data management support, is there. How about clinical informatics? Do you tap into that?

Irfan Asif: Yeah, I think.

Mark Johnson: People's...

Irfan Asif: Go ahead, Mark.

Mark Johnson: No, I was gonna say that's another situation where you may or may not have expertise within the department. So, particularly now that AI is becoming so important in research, to... to have access to larger databases. It is crucial to understand how you can use that to do secondary analysis is crucial. But, you know, this is another example of how you can collaborate with people outside the department. At Howard, we have a very strong collaboration with the Department of Computing, which is in the College of Engineering. And we've done joint grants, you know, we're working together through the NIH program called Aim Ahead. And, it's opened up a whole new avenue of research for us.

Pete Seidenberg, MD: Excellent. So... Are there... tools... That you've... that are available, or that you've utilized? To see where your research currently is, and that you follow that regularly. You update that, say, yearly, to see where you are on your progress in your research.

Irfan Asif: Yeah, I think one of the tools that's been published in Family Medicine is the PACER tool. I think that takes a lot of the requirements that are seen from the ACGME for residency

programs related to scholarship. It really builds upon them. Looking at, you know, bibliometrics, publications, abstracts, presentations, posters, extramural funding. I think there are, you know, 30 or 40 metrics that are actually... can be looked at within the PACER tool. That you could use, like you said, looking at it on an annual basis within your department to see, you know, what success looks like at baseline, as well as what it could look like in the future.

Pete Seidenberg, MD: Excellent.

Anthony Viera: Yeah, there... to add to that, I always think about, what does my boss look at?

Pete Seidenberg, MD: Right.

Anthony Viera: So, if the dean looks at things like Blue Ridge rankings, so I'll check those every now and then, or at least my yearly reviewer, State of the Department, just to see where we are, with the caveat that that's only federal NIH funding, but it gives you a sense of where you are and how you've moved the needle, maybe year to year. I always emphasize for my faculty, though, that it's... for me, it's not about that. It's about impact, it's about what you're doing that makes a difference locally, regionally, and even globally, because, you know, we have the Duke Global Health Institute. A lot of my researchers are doing global health work. So, it's... there are these tools, but we always want to think beyond the tools as well.

Pete Seidenberg, MD: Excellent.

Irfan Asif: Yeah, the Blue Ridge ranking is an interesting one, particularly for family medicine. There are only 50 or so departments that are actually listed on the Blue Ridge rankings. Now, I think it is one that I would love to see many more departments listed in. I think as we...as we know, that's really focused on NIH funding, and there are some deans that strictly look at that and then say, you know your worth is based on where you are in these Blue Ridge rankings, but I like the way that Anthony phrased it. You know, it's a marker, but we really would like to look at other forms, and some of its funding if it's NIH, but it could be HRSA funding, and family medicine has really been successful at getting HRSA funding, to help with, particularly our educational programs. So, hopefully people look at that as maybe just a gauge, but also can celebrate all the wonderful things that are done in family medicine.

Anthony Viera: Absolutely. Some of the best projects, most impactful work is from small grants or from, you know, foundation funding, and so those wouldn't be captured, so that's why it's important. And we emphasize that to our deans, I know we all do that.

Pete Seidenberg, MD: Excellent. So, before we were talking about goals and strategy, let's... let's talk a little bit more, right now on vision, research vision. Should each department have its own vision, separate from the university. And what should that relationship to the universities be? And where should research fit into that? Anthony, do you want to take that one?

Anthony Viera: Sure. I think it's important to align and think about the institutional vision, but I think at the same time, it's also acceptable, and maybe preferable to thinking about what is the department vision? How is a department contributing, probably in different ways than others may be contributing via research, scholarship, community impact, all of these things that we're going to call scholarship more broadly, community engagement, these are things that may be different than the institutional alignment. But more than likely, they do align, they fit into some part of the mission, and that's where we can emphasize what we're doing, what we're contributing, how even though we may be a small department at a big institution, here's how we're making a difference in the community through our scholarship, through our research, and kind of go from there.

Pete Seidenberg, MD: Excellent.

Mark Johnson: I agree. Part of the strategic planning that you do for the department is going to define the vision. And... and it... when...when you have everyone in the department contributing to that, there's going to be greater buy-in. That's often important when you want to avoid having conflict or competition between the clinical people and the research people. But the other thing is that our research outcomes, you know, are often different from what the university wants. You know, we want to have an impact on our community, we want to have an impact on health policy, we want to have, you know, an impact on how healthcare is delivered. In this country, and I think including components like that into the vision allows us to stand out, not against the institution, but just different from the institution.

Pete Seidenberg, MD: Yeah, it's hard to go against, right? But if you can find ways that your department's vision aligns with the institution's vision. It may not be the exact same, but this supports the institution's vision because this is the unique value that we bring. I think that's extremely important. There aren't other departments like us.

Mark Johnson: Right.

Pete Seidenberg, MD: And so, there are departments that have the community impact that are on the front lines in the vulnerable communities, doing the frontline work. And so, I think that's extremely important to share that as part of our vision. I'm sorry, go ahead.

Irfan Asif: Pete, I was also just gonna add, you know, for the Family Medicine Strategic Plan, the National Family Medicine Strategic Plan, there is a vision that's out there, and for departments that maybe don't have a vision, they could at least look at that. It talks about conducting research that is family and community centered, including work that enhances health promotion, improves the care for chronic diseases, and advances healthcare delivery. While including cross-cutting themes of health equity, technology, and team science, which I think you hear in the answers to these questions, you know, you hear things like technology or clinical informatics, you hear us talking about working in teams with other people. You hear us talking about chronic diseases or community, so that's a good place to start if you're trying to develop

your own vision. But again, I would make it, make it something that aims, with, maybe aligns with what your institution is doing, but also is authentic to what your department has and the resources and the people that are part of the team.

Excellent. So... so you have a vision, And the way...I've kind of looked at it...is, you know, I have a vision of where I want to be in 3 to 5 years, and in this realm, in, in terms of research for my department. So... How did you...formulate your research goals? What... how did your vision play into that, and how did your people play into that? Mark, do you want to take that?

Mark Johnson: Well, I have a... I have a small department, which allows me to give individual mentorship to every faculty member that wants to do research. You know, and, you know, I tell people that I hire, I don't want you to come here for a job, I want you to come here for a career. And... and... and when you, when you, when you think of it that way, and you make long-range plans for what you want to be, then you can guide people over years. You know, and so I think it's important for us to not forget the people aspect of this, the importance of mentorship. And, when you demonstrate to...your faculty that... that you have a... you share their mission for them to be successful. It keeps them motivated.

Pete Seidenberg, MD: Yeah. Excellent.

Anthony Viera: I take the exact same approach as Mark. The idea that it starts with the people, and what are their goals? In other words, the researchers themselves probably have a goal to advance their own research along whatever line and topic they are pursuing, that they're passionate about, and I see our job as, you know, leadership in the department is to feed that, you know, feed that, and to get them the resources they need, help them make the connections, the networks, and develop their career. And hopefully, help the world at the same time, right?

Pete Seidenberg, MD: Right.

Irfan Asif: Yeah, I mean, building on that, I think when you have a department that maybe doesn't have a big research footprint, collaboration is key, and collaboration is going to be important both within your department, so making sure that you're integrating, the clinical missions, the educational missions in particular, and again, our educational programs have scholarly activity requirements, so that's a good place to start. But, you need to collaborate also outside the department, so if you see that there are some departments that are doing really well, potentially collaborating with them, particularly where there's alignment with your vision. So, for example, you might think about, you know, chronic disease, does anybody else do chronic disease, work within your institution? There may be specific centers that do that on campus. So, for example, we had a center for healthy living that thinks about chronic disease prevention as well as health promotion. And that's a great partner for doing research and work. So again, collaboration both inside your department as well as outside is going to be really key, and then figuring out how you marry the research as well as the clinical and educational missions are going to be important.

Pete Seidenberg, MD: Excellent. So...when...I've taken a very similar approach with my faculty. I meet with them individually, find out what their research or scholarship goals are. And then I also kind of plug in what my boss's goals are...for that into the department overall goals. And then I take...a look with the team and say, okay, these are our goals, these are the resources we have. What resources do we need to accomplish these goals? And so with that gap analysis between what we have now and what we need to get to where we want to go, that's how I start advocating for other resources and infrastructure. Either out...external to my department, collaborating with others outside to get that expertise, or to get that skill. And...or, you know, hiring...or buying things to be within the department. And so, you know, and when I say buying things, like computers, programs, you know, whether I need a certain statistical package, or access to certain data sets that has a fee. So things like that. So... Excellent. Mark, you brought up mentorship and training...and actually, everyone has...has really brought that up. So I'd like to hit on... on...the use of research time And do you include mentorship on that? So the first question is. Do you have dedicated academic time specific to research for your research-minded people?

Mark Johnson: Yes, that's negotiated with each individual, and you really have to separate that into two categories, because there's non-funded time, which you will often give people. Who you think has promise, and when you give them unfunded time, then there are certain expectations for productivity, the debt you're gonna have. And then there's funded time. And with funded time, you give people the opportunity to buy out, being able not having to do certain educational and or clinical activities so that they can devote the time to... to the research. So... so that's... that's part of negotiation for every new candidate that comes in. But it... it also can be negotiated at an annual review, for example, when...when somebody wants to change their effort simultaneously, you have to point them to two other things. One is, where are the opportunities for funding? And that list should be broad. Yes, you want people to go get NIH money, but if you can get money from Corey, or from Foundations, from Rob Wood Johnson, etc, you're not going to turn it down. So, so, so the other thing is you want to be able to identify every place that they can go to get more research training.

Pete Seidenberg, MD: And there are part-time fellowships.

Mark Johnson: there, there are...there are mentorships that are sponsored by NIH, and to identify those opportunities, your faculty can sometimes accelerate their research process.

Pete Seidenberg, MD: Excellent.

Anthony Viera: Yeah, I would add to that, the, and there's a balance if you have clinician researchers and a cadre of non-clinician researchers, because the approach is slightly different. As Mark said, the clinician researchers, they're allotted a certain amount of time, and ideally they get funding within that time. Maybe it's backstopped for a certain amount of, you know, years or whatever. And then if they get the funding, great, it's protected, that's protected time for

their research. If not they have the ability to go back into the clinic. Right? And cover that time. Whereas the PhD or non-clinician researchers don't have the ability to go back into clinic, so it's really important for them to find the funding, to be pointing to other networks, to be co-eyes on other people's grants, so that they can build their portfolio of funding, and one that, once the backstop kind of dries up, they have a source of funding to keep themselves going. And so that... that becomes a challenge, and I think it is a... it's a question for all departments when they're considering how to grow research. Do we want to include non-clinical researchers in the department? Taking the risk that non-clinical researchers, they don't have to be wedded to the department either. In other words, and I found this to be a risk in my own development of research in the department, when PhD researchers, non-clinicians, become successful, they are recruited. You know, they get their NIH funding, and then another department somewhere else says, hey, come work with us, we see you got our wants, and if they can offer... make a big offer, you know, you have to try to compete with that. Whereas a family physician researcher they're... they're more wedded to the department because they're there being in a family medicine department. Where else would they go, right? And so that's... I think that's a balance of this, but as Mark said, keys are mentorship, training, resources, connectivity, networking. As I said, it's hard for any researcher to be a sole person and keep themselves funded all the time. It needs to be a network. Team science, as Irf said, is so important.

Irfan Asif: Yeah, I think the only two things, one is...I really want to echo that the funding can come in many forms, but collaboration with other people as a co-investigator where they're maybe writing the grant and your faculty member is maybe getting some funding for that time. I really want to emphasize, particularly for departments that don't have high research output, that that's a good model to get you to a place to maybe where you build your infrastructure and go from Low, medium, to high. I think the other is, you know, in a department when you... where you may not have all the resources to be, medium or high functioning in the research space, oftentimes the lines are a little blurred. So yes, I do ultimately want people to have some protected time, but maybe I have to think about how that bleeds into some of the work that you're doing with academic time within a residency. So maybe there's some days where you're allotted precepting time, but you're not precepting that day, and so could that be used for some of the scholarly activity work? Or maybe you have some administrative time for the residency, and instead of just thinking about, oh, I need to be accomplishing the didactics, or, you know, maybe I'm taking out some of that time to get some of the scholarly activity done. So, until you get to where you have the resources to block off specific time focused on research, you may have a department where you're sort of blurring the lines to try to get it done, and then thinking about how you might collaborate with others to get it funded and then hopefully protect it even a little bit more.

Pete Seidenberg, MD: So, when I was growing up in family medicine, the scholarship and research was on my own time. And so, it was... You're a 100% clinician if you want to do that academic stuff other than teaching. That's on your own time. And what's some of the dangers of that approach?

Mark Johnson: Actually, there have been some studies on that, and it's shifted with time. I saw

one study for internal medicine that said 80% of grant writing was done after hours. No, that was... that was maybe 20 years ago. You know, today, we have people who value their personal life more. And I realize now that my kids were traumatized by my grand times. You know, they knew that when daddy had a grant, you know, life was different. And people don't accept that anymore. And so we as leaders have to make room within the schedule so that people can accomplish at least some of their scholarly activity work during regular office hours.

Anthony Viera: And it's tricky, too. I think, just building off of what both Irf and Mark said, yes, our clinicians who may not have the research passion still, they're in an academic place, they ought to be doing some kind of scholarship. So we have to be mentors for them and teach them how to do that in the restrictions of the time, as Urf alluded to. They may or may not have. So, key things if you're teaching a CME talk on something, can you turn that into a clinical review article? How much more work would it take? And the more you... that our folks do that, they get better at writing, they get more comfortable with it, they start building expertise in an area, and they become the perfect collaborator, a clinician collaborating with a methodologist, to get that first co-I, take the co-investigator leap don't expect them to go right to PI, but take the co-investigator leap on that same topic that they're writing about, and then over time, hopefully that builds into something more substantial. But it's very tricky. I agree with what everyone said early on. It's tricky to get that going.

Mark Johnson: And you reminded me of one thing. We're talking about infrastructure in this discussion. Another type of infrastructure we haven't talked about is research assistant or research associate. You know, these are people that can do groundwork that a physician doesn't necessarily have to do. But under direction... under guidance can contribute to the productivity of the individual researcher and the whole department if they are used widely. And so, I want you to include that in your list of infrastructure.

Irfan Asif: Yeah, I want to build on those pieces, so...in order to get more resources, you have to think about what it is that you have, hopefully you have lots of that you can offer to something, or maybe you only have... you're the only ones that have it, so there's high value to it. So, what are those things? So, some of those things are, you know, as Anthony and Mark are saying. You have this clinical knowledge that maybe other people don't, that's valuable. And so, if you can offer that in a way and say, hey, I'm happy to provide this clinical knowledge to you if you're able to help with providing some infrastructure, whether that's protecting time, or offering a research assistant, or whatever it might be. I think the other is access to patients within a primary care practice. So, we as departments have many practices, and many patients come in, and you... all of our primary care physicians have a trusting relationship with all of these patients, and if there's a nutrition study that might be beneficial for a patient as they try to battle through obesity, and you say, I think this study might be a good one for you, that may... that patient may take a look at it. And so, that's of value, and potentially, co-investigators could look at that and think about, okay, because that's valuable, maybe I'm willing to work with that person, and again. Potentially protect some of their time. I don't... I think we don't always do a good job of advocating, within family medicine. We're just nice people, so we just do this out of the

goodness of our hearts, which can sometimes lead to more of that after-hours work. So I think we need to do a better job and teach our faculty about how to ask for these resources to get the work done. Hopefully, during the workday, as opposed to all during the evening. And if you're having to do things after hours, we'd need to do a better job of shifting our mindset in terms of what the metric of success could look like.

Pete Seidenberg, MD: Hmm. Very good point. Very, very good point. So, Anthony, you were talking about...Harmonizing that academic teaching mission with the scholarship research mission. And then there's also harmonizing the clinical mission, as Irf was alluding to, with the research, and we all, I think, teach in our clinics, our residents and our medical students, so we're all merging education and clinical time. And so it...brings up the concept of harmonizing the mission. The missions... to advance Research, and make that...a part of your culture And your identity as a department. Are there some other good techniques? That you've utilized during your one-on-one sessions with your faculty to help that happen.

Irfan Asif: You know, for me, mentorship is key, and I think as you go from...sort of a low, medium, to high, mentorship becomes even more important, right? The, the ability to write a paper is... it's not easy, but the ability to try to write and, to get an R01 or you know, use, peas, other grants, there can be a lot of Pressure there, and...in the current climate, you may not be as successful. Oftentimes, the reinforcement of success isn't always there, and so making sure that people have mentorship as well as support is going to be extremely important. One of the things that we started doing was to include mentorship committees for people. Those committees can be really valuable. That can include people within the department, but also outside the department, and potentially even outside the institution that can offer forms of support. In that, you could imagine that someone on a quarterly or every 6-month basis is offering, here's an update on where I am with my research progress. And then, do you have any feedback, any potential resources, whether that might be places to apply for grants, collaborators, places where you should be presenting your work or publishing your work, and get feedback from people. And I found that that sort of mentorship support for people, even if it's one-on-one, can be super helpful, but again, as you go from low, medium, to high, the mentorship will need to be scaled appropriately as well.

Anthony Viera: Yeah, I'll just build on what I said earlier about harmonizing this, Pete, and that is to say there's lots of strategies that we can use. Our folks are doing great work. One question I often ask, and I'm sure you do the same thing, is, hey, have you thought about... have you thought about writing that up? And when we say that, the idea is like, hey, Pete, that was a great talk on GLP-1 side effects. Have you thought about turning that into a clinical review article? Or you say to a resident, man, that was a great case you presented earlier, who would you work with on that? Maybe you should go to Pete, and you guys write that up as a case report together. And that gets things kind of going, and the beauty of that is the work is... a lot of the work has been done, has been... you put the effort into writing the H&P and the records. It takes just a little bit of extra steps to get it to publication, and that... and then pushing folks to do that kind of... it may light a fire under the residency, for the clinical faculty, to say, hey, Pete can do it,

maybe Anthony can do the same thing, and then you start getting publications, and that sort of helps build your scholarship, and then, you know, it turns into something else. And then you connect them to the librarian and say, hey, the librarian is great for helping you find articles for this and doing your background work. Make sure you invite them to be a co-author, and they work on this with you. They'll do the background literature search for you, you know, if you have the access to the resources. And it goes back to this infrastructure, which is the main topic of today. So, those are just ways to kind of build on it, harmonize. Same thing for educational work. You know, that was a great thing that did with educational innovation. Have you thought about writing it up? Clinical innovation, same thing. We initiated eProvider a couple years ago, which is basically turning in-basket work in Epic into an electronic visit, which we can bill for. And I said to, you know, the team, we should write this up, and it turned into a publication for them, and an evaluation. So, education, clinical, you can harmonize that to scholarship, not spending your evenings and working on it, but capitalizing on work that you've already... a lot of work has already been put into it, and just kind of pushing people to take it to the next level.

Mark Johnson: I agree.

Pete Seidenberg, MD: Yeah, I think just taking what you're doing and succeeding in already.

Anthony Viera: Yeah. And adding a little methodology behind it.

Pete Seidenberg, MD: We'll take you far, but.

Anthony Viera: Yeah, and partner with a couple people to make it fun, and hold each other accountable, and it works for the team, and all boats will rise.

Pete Seidenberg, MD: Excellent. How about your folks applying for grants? Do you give them examples of previous grants that were submitted that were successful? Do you give them kind of a boilerplate? What... how do you make that easier for your folks?

Anthony Viera: Yeah, I definitely give them examples. I say, here's the successful one I had, here's one that didn't get such a great score, and you know, you learn from them. But I think examples are key. Formatting seems to change from year to year, so they have to still follow the guidelines for formatting, but I think examples are key. And then having folks review, no matter what level of writer, researcher one is, it never hurts to have a set of, like, hey, Pete, marketer, will you take a look at my specific aims page and just tell me, does this make sense? Having some folks like that you can count on, who won't just say, yeah, Pete, it looks great, but say, Pete, I don't understand this, can you explain this? I don't see where you're going here. And that critical feedback is important. So having those components, examples, and then feedback.

Pete Seidenberg, MD: Yeah, I think that feedback, especially someone who is not on the team, is not intimately involved with the project, can help expose your blind spots on your submission, and so I think that's an extremely valuable resource, and really, that's infrastructure, right?

That's part of mentorship, that's part of collaboration. So that's great. Yeah.

Irfan Asif: At some of the institutions, there will be grant writing workshops that are available. If you have a clinical and translational science award institution, they oftentimes have some of these things where people can, learn how to write grants, support each other, review each other's grants, and if you don't have those, you know, there may be some, you know, the GGP program or other programs through NAPCRA, might be other ways to get people to give that feedback. I think, as Anthony said, the amount of red that might be on someone's manuscript or grant is probably proportional to how much they care about you, so lots of red is probably a good thing.

Mark Johnson: I would add that one of the things is to get your faculty on study sessions. You know, this is something we emphasized in family medicine a few years ago, and I think we've let it drop. But the experience and expertise that can be gained from serving on study sections is something that is invaluable to a department. Because if you sit on a couple of study sections, and then you see something that your colleague in the next office is doing, the contribution you can make to improving that submission before it goes in is insurmountable.

Anthony Viera: Yeah.

Pete Seidenberg, MD: That's excellent.

Anthony Viera: Great point, and they might start with peer-reviewing manuscripts, too. Tell them to take it on, and, you know, give a good peer review, and they'll learn from the process.

Pete Seidenberg, MD: Yeah, what I'll often do is...

Anthony Viera: A peer review that comes my way.

Pete Seidenberg, MD: I'll ask one of my faculty if they want to do it, take the first shot at it, and I'll mentor them through that process. And... and... And I say, this is what's happening when you submit something.

Pete Seidenberg, MD: So, see how this is, and learn that the people are not being mean.

Mark Johnson: This is... this is actually a help. Yeah, I'm on the board for the Journal of American Board of Family Medicine, and I will often pass those on to my faculty.

Pete Seidenberg, MD: Excellent. So, so...we've talked a lot about the non-traditional researchers in the department, how to get them harmonized, and how to get them going with things that they're interested in, and how to support that. How about the established researcher, the... either the PhD or the clinician researcher that's in your department that is very successful? What, do you require them to mentor others, and do you provide dedicated time for

that?

Mark Johnson: So, I don't... I don't... actually, I don't have someone, I would say, who is in that category in the department. But theoretically, you know, when they get to a certain degree of success, I think there's a duty to, to share their...expertise with, with, with other people. But you bring up a very interesting consideration, you know, and that is, you know, how do we recognize that duty, and how do we recognize that contribution? I haven't given a lot of thought about that. I know in Carol Bland's book, she talks about it. And I think that we, as a discipline, need to pay more attention to the...to mentorship, and how mentorship should be administered, and that should probably be the topic of another one of these discussions.

Anthony Viera: Yeah, I would say that, while I don't...I have not required it, I think all of my folks that are senior enough to do it are doing it, and they do it because they like it, they enjoy it, they recognize that that's something to... to pay it forward. So I don't have to...have to require it. I think what we do is we reward it with, you know, putting people up for mentorship awards, or it is its own reward, because they get invited to be part of the paper, or part of the project, and they...I think folks enjoy that. And then my early career folks, they mentor medical students. And so, here at Duke, we have a third year where everybody...all the students do research. One of my strategic goals was, why I wanted to build more research in the department is to get more med students into the department for that third year, so that we can mentor them. And that's been... that's been fun for the researchers as well, when they can get a medical student and mentor them. And there's been some mentorship of residents, although not as much, because they're so busy with residency.

Pete Seidenberg, MD: My goal there is to do what I said earlier, which is get somebody to write a case report, something for FPIN, and work with an attending on those projects.

Irfan Asif: Yeah, I think mentorship trying to tie it into something related to your promotion criteria is also a way to get some recognition, but I do think that, you know, if you had 10 researchers within your department, and all of them were assistant professors, and they lacked that mentorship, that's gonna...It's gonna come in some way, and...hurt the team, so you would have to find a way, whether it's external to the department or even in other departments, outside of your institution, to make sure you have mentorship for them. If you have some balance of where, you know, a third, a third, a third, and I'm not saying it's easy to do that, but people being able to mentor at different stages, whether, as Anthony and Mark had mentioned, whether it's students or its other faculty, I think that mentorship is very important. It's actually key for success.

Pete Seidenberg, MD: Excellent. Well, thank you very much. This has been a very insightful discussion. And I want to thank everybody who's tuning in for joining our session on department infrastructure to enhance research within your family medicine department. And, thank you again to our panelists, and for your expertise and volunteering your time for this.

Pete Seidenberg, MD: Please check out our other sessions on the department chair's research

curriculum. There are 4 sessions, and so, including this one on infrastructure, then there's ecosystem, regulation, and funding. And so, also on the website will be some white papers, some PowerPoints on each of the topics, and a list of resources for you to access for your department to further research your department. Thank you again, and have a great day, everyone.