How to get started with research in medical school with Kirsten Bibbins-Domingo, MD, PhD

AMA Update covers a range of health care topics affecting the lives of physicians, residents, medical students and patients. From private practice and health system leaders to scientists and public health officials, hear from the experts in medicine on COVID-19, medical education, advocacy issues, burnout, vaccines and more.

Featured topic and speakers

Advice for medical students on finding research opportunities and how to best showcase their work from the editor-in-chief of JAMA and the JAMA Network, Kirsten Bibbins-Domingo, MD, PhD. American Medical Association Chief Experience Officer Todd Unger hosts.

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Speaker

- Kirsten Bibbins-Domingo, MD, PhD, editor-in-chief, JAMA

Transcript

Unger: Hello, and welcome to the AMA Update Video and Podcast Series. Today we’re talking about the importance of research in medical school and how students can get started and showcase their work. I'm joined today by the editor-in-chief of JAMA and the JAMA Network, Dr. Kirsten Bibbins-Domingo, in Chicago and our AMA studios here. I'm Todd Unger, AMA’s chief experience officer. Kirsten, welcome.
Dr. Bibbins-Domingo: Thank you for having me.

Unger: Let's just start off with a basic question, I'm just curious for your perspective. When you think about students and research, do you think that's something that's become more important of late, and why?

Dr. Bibbins-Domingo: Well, I do think that the critical thinking skills that you get from being in a research environment, learning how to ask questions and answer questions in a scientifically rigorous way, that's a critical skill for all students, for medical students, and for those who will go on to practice medicine.

So it is something that I see in more medical schools incorporating this into the curriculum. Not just that you are going to absorb all the facts, but you're going to learn how the people who generated that knowledge thought about it, and that you might start to question the knowledge yourself. And that's the critical thinking skills of research I think is important for all medical students.

Unger: How do you see that playing out then later in somebody’s career, whether they go on to do a lot of research or not?

Dr. Bibbins-Domingo: Well, I think it's important for students to embrace the process that one goes through in a research environment. That doesn't mean that all students are going to become researchers, that they're all going to be professors, or that they'll all be part of research teams. But it does mean that they'll have good critical thinking skills. It'll make them better consumers of the literature of reading scientific articles.

I think there is more research that's happening in practice settings, and it will enable people who are clinicians in those settings to participate as a part of a research team, if that makes sense for them in their environment. So I think it can play out in multiple ways. It doesn't mean everybody is going to be focused solely on research.

Unger: Tell me more a little bit about that alignment that you talked about between clinical practice and research. How does that bear out?

Dr. Bibbins-Domingo: I think that there's been a growing appreciation for the fact that research happening over here and clinical practice happening over here doesn't serve anybody well. It results in results that happen in a research environment that don't really translate to a clinical environment.

So what you're seeing now is more funders, more regulators, more people who are thinking about research saying we actually have to do this in a much more pragmatic way in a clinical setting. And that means we will have to have more people who practice in clinical settings primarily having an appreciation for how to be part of a research team.
Unger: It's interesting, because it makes me think about our last conversation, the theme of which was how do you maintain quality but speed things up? Is that kind of alignment going to make things faster?

Dr. Bibbns-Domingo: We hope. One of the things that JAMA's doing for the first time this year is that we're going to convene thought leaders in clinical trials, an important area of research that we publish. We're going to convene thought leaders for a JAMA summit just to say, how do we think about our clinical research, clinical trials enterprise, that we spend a lot of money on but sometimes doesn't give me the answer that I want as a clinician on how to take care of a patient.

And so what you see is funders, researchers, institutions, everybody is thinking right now, how can we move clinical research closer to clinical practice? That's where the trend is, and I think we're all trying to think of how to do it better.

Unger: Very interesting context then. Let's think about how you would advise students then.

Dr. Bibbins-Domingo: Yes.

Unger: We hear a couple of big questions from students that are in medical school now. One is, when should they get started doing research? And I'm going to guess the answer is don't wait till you're a third-year medical student to get that going. But what do you think?

Dr. Bibbins-Domingo: I think to do research well, you have to immerse yourself, even if it's for a short period of time. And so I think for us, in the medical school I went to, it was really in that summer between first and second year of medical school. You usually have that summer as time when it's not scheduled in classes. I know that varies across medical schools.

But what I like about thinking about that summer between the first and second year is that it's a consolidated period of time when you can really immerse yourself. It's very hard if you don't have experience doing research to do it in between studying for exams and things like that. So I really think you need a dedicated period of time, even if that time is short, and that you really immerse yourself with a research question.

Unger: Do you think it's better for a student to follow a certain direction or line of questioning throughout medical school, or try a lot of different things?

Dr. Bibbins-Domingo: That's a great question. I encourage people to understand where their passion is. But if you want to learn about research, probably the most important thing is that you immerse yourself with a good group that does research, that is really open to having students as a part of their research team, even if the question that they're asking might be only tangentially related to an area that you're passionate about.
Because I think it's the experience of learning how scientists think, learning how research teams think, learning how they work together. That's what really gets students excited in the end about doing research. Not that they themselves come up with the question and then go find somebody who's asking the question in exactly the same way they've thought about it.

**Unger:** Any tips on how a student finds that kind of group that you're talking about?

**Dr. Bibbins-Domingo:** Well, oftentimes in any medical school, it's well known those professors or research teams that are really open to students. So usually they're well known.

I encourage people to ask though. I encourage students not to think too narrowly. Because it turns out medical students don't know all the answers. The most important thing for a medical student is to be open to asking the questions.

And so think about an area broadly, and then talk to people who are in that area. Even with research labs or research teams that may not have a student, many of them are open. They might be newer professors. They might be new to doing this, but really open to having a student be part of their team. And I think it's more about the experience where you're in a really vibrant learning environment that you can start to appreciate what makes people excited about doing this line of research.

**Unger:** That's interesting. Because from what I hear, part of the process is learning from others, learning how it's done. Maybe it's not exactly like your area of passion, so to speak.

Now, it's interesting, because we just had a big poster session at our AMA Annual Meeting. We had hundreds of students enter. We showcased a little over 100, and they were just outstanding. And the students were so passionate about so many different things. For someone who does have a real area of passion, is it possible to do it themselves, build their own kind of research program?

**Dr. Bibbins-Domingo:** Well, I think that if you're really passionate in an area, usually students like that, they've already been thinking about research probably even before medical school. I think that you can be more directive or proactive about the type of team you want to join, especially students who've been thinking about research for a period of time.

But for those who are just starting out, you probably want to be in an environment of just learning and understanding it in that environment. But there's a range. It's really amazing. I think the students that you're talking about, they come in with a whole range of experiences prior to medical school. Some have research under their belt already, and so they can think much more critically about the type of experience that they want that will complement what they already have and hopefully set them up for the future.
Others have not had any research experience, and you want that type of person to be in an environment where they can really explore. And I think medical school is the time for exploration, so you could figure out what will ultimately be the most fulfilling way you'll practice as a doctor in the future. And that's what I would want most students to spend their time thinking about.

**Unger:** Now, you got a firsthand view of some of the amazing research that students were doing because you were a judge in last year's AMA Research Challenge. As you think back to that experience, any kind of standout advice that you might give those who are just about to enter this year?

**Dr. Bibbins-Domingo:** It was an extraordinary experience. Some really incredible research that we evaluated. I think what struck me was the depth of understanding that the students had for their specific projects. And their ability to communicate not only the details about the science, but also why the question was important and the implications of that line of research.

And I think that is that wonderful time when the passion of a student meets an experienced mentorship team, and that students get everything that they can out of that environment. And then they're able to express not only the science but also why it's important. And those are all of those wonderful skills that I think can really come together in a rich research experience.

So it was really exciting. It was very hard to judge, because there were so many outstanding applicants. But really wonderful, and I think really speaks to why students get so much out of doing research.

**Unger:** We're really hoping that you'll join us this year as a judge.

**Dr. Bibbins-Domingo:** Thank you for asking me. I'd be happy to.

**Unger:** Hey, students out there, it's going to be great. Thank you. We're so excited that you will join us this year. That's it for today's AMA Update. We'll be back soon with another segment.

In the meantime, students, check out information in regard to the AMA Research Challenge. Submissions are open right now. There's a $10,000 grand prize brought to you by Laurel Road. Find out more.

Thank you again for joining us today. Please take care.

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