Jason Anthony: Welcome to Proto, a podcast that explores the frontiers of medicine. I'm Jason Anthony.

Nancy Tarbell: And I'm Nancy Tarbell. Today we celebrate mothers in medicine, women who navigate medical careers while parenting.

Daphne Holt: I really felt, and I still feel like this is really the most exciting time of my career. So when my daughter arrived, there was really nothing I wanted to give up. But the problem is when you're a parent, particularly when you're a mother, really, you have two jobs, so something has to go.

Jason Anthony: And we'll look at how hospitals can help them avoid the motherhood penalty, an ebbing of opportunity that can cut their contributions short.

Nancy Tarbell: Coming up on this episode of the Proto Podcast brought to you by Massachusetts General Hospital.

Jason Anthony: In the United States, we celebrate Mother's Day on the second Sunday of May. The founder of the holiday, Anna Jarvis, imagined it as a time to honor the matchless service a mother renders to humanity in every field of life.

Nancy Tarbell: But in many ways we don't honor that service. Many studies have found that women who have children often fall behind in their careers and over a lifetime receive less compensation and recognition than their male counterparts, even compared to men who are also parents. And these gaps persist in the world of medicine and medical research. Mothers have been instrumental in the medical milestones of the last century. The genomic revolution, stem cell research and countless other frontiers, but institutions have not always been smart in how they support women and their work.

Jason Anthony: My co-host today is Dr. Nancy Tarbell. She's a noted pediatric radiation oncologist who was elected to the National Academy of Medicine in 2002, and has authored more than 300 publications. She also directed the Center for Faculty Development and the Office for Women's Careers at Massachusetts General Hospital, and is currently the Dean for Academic and Clinical Affairs at Harvard Medical School.

So you built a career in medicine while you were raising a family. What memories stand out for you from those years?

Nancy Tarbell: Many. We had three children and my husband is also a physician at Mass General Hospital and we really did find it quite challenging sometimes. One of us would run late with a patient. There were many issues that made juggling career and family complicated. I think some of the things that really stand out were even the needs when a child got sick. Let's say your child got sick and you had patients that day, juggling which one of you was going to have to cancel a patient or figure out who could stay home. Those struggles are very real and they persist today.

Jason Anthony: A few studies came out this year that had been making headlines. One of them from the Census Bureau said that when a couple has children, it's a mother's pay that drops by about half of her husband's, on average. And more importantly, if that motherhood happens between the years of 25 and 35, her salary and her career achievements never quite catch up to her co-parents. What's happening specifically during that window, that 25 to 35 during a medical career?

Nancy Tarbell: Basically everything you do, starting your career between these critical years that are also coincided with childbearing years. You're trying to establish yourself as a physician. If you're in academic medicine, as we are at Mass General Hospital, you're trying to establish your academic career at the same time, as you're trying to balance family and your patients. It's quite a juggling act and in fact, we could tell that we were losing our women faculty, in particular, during this critical stage.

Jason Anthony: When you say losing them from academic medicine, what do you mean?

Nancy Tarbell: I mean, that many young women may decide they can't juggle their patients as well as research and therefore they may give up an academic career and go into practice. We lose our young faculty who are going to contribute and make a difference for the future and the future of research, which we know is so important.

Jason Anthony: What do institutions do? Obviously you've got a lot of brilliant women in medicine, and if you want to keep them from incurring this penalty, this cut their contribution short, what can institutions do to help?

Nancy Tarbell: Actually now, the good news is many of the benefits you need to provide for women also help men as well. So this doesn't have to feel as though women need special help or are somehow different. But there are multiple things an institution can do. Mass General was really a pioneer in this and establishing a backup childcare center. So if your nanny got sick or your childcare was closed for school vacation week or whatever, onsite there was a backup childcare available where you would be able to sign up and bring your child to the hospital and still be able to carry on your work duties. Those kinds of benefits are immeasurable in relieving the stress and tension of trying to balance all the things that do come up in raising children. Maternity leave benefits, making sure that there's some flexibility in your work schedule and that's true, I think, for men and women.

Jason Anthony: Are there any special considerations in medicine? Are there special challenges of making sure that there's a balance or there's support for a home life as well?

Nancy Tarbell: I think any intense career, I've only grown up in medicine, so I can't speak to what it would be like if I were in the legal world or some other world. My guess is any intense career requires a juggling and balancing act that is somewhat similar. There is probably within medicine though, the fact that it's not always predictable when your patients are going to get sick and that element you have to factor in.

Jason Anthony: You led a taskforce at Harvard Medical School on faculty development and diversity. One of the takeaways in that report was a need for effective mentoring. Is that something that can help in making sure that we get the most out of the contributions of everyone in medicine?

Nancy Tarbell: Mentoring plays a huge role. It includes everything from role modeling, the fact that women can see other women that have had a career and balanced families at the same time is inspirational and really critical for young women. And helping with career advice and making sure you have access to people who can help you navigate the system, I think really has made a big difference.

Jason Anthony: And where does the Claflin Award fit into all of this?

Nancy Tarbell: So the Claflin Awards were started by the group who designed and implemented an Office of Women's Careers at Mass General 20 years ago. And these awards were really designed to help address this problem you identified, the 25 to 35 year old young woman who is trying to balance an academic career as well as clinical responsibilities and childbearing. These were specifically targeted for women only, which was pretty pioneering and really innovative. It was the first place in the country to do anything like this. Really say, "We're going to invest in our young women faculty who have children. We're going to give them some funding to help put their career on track." That had an unintended, as well, as intended consequences. And some of those have included, retention has been better in this group, in this cohort, promotion rates are higher in this cohort and definitely career satisfaction and morale has been improved by these awards.

Jason Anthony: That's extraordinary. I know that a number of efforts like this have happened in the years since. In 2011, the National Science Foundation made some funds available for researchers to support them in their maternity years, but when was it that the Claflin Awards started?

Nancy Tarbell: The first ones were two awards in 1997.

Jason Anthony: Holy Moly.

Nancy Tarbell: Which really was ahead of its time and they still continue. Now it's five, a year, in funding for two years. One year we felt was not enough of research and that has now been an enormous investment over 20 years, that still continues.

Jason Anthony: Thank you so much, Nancy. Coming up, we'll meet a recent Claflin Scholar and we'll learn how that award affected her as a mother, a doctor, and a scientist.

Nancy Tarbell: Every year since 1997, Massachusetts General Hospital has awarded a series of Claflin Distinguished Scholar Awards. These are designed to help women, especially during child-rearing years, in their efforts to advance to positions in academic medicine.

Jason Anthony: Today we're joined by a 2014 winner of the Claflin Award, Dr. Daphne Holt. She's a neurobiologist and psychiatrist at Mass General Hospital. And part of her research looks at the neural basis of emotional function and social behavior. Daphne, welcome.

Daphne Holt: Thank you. Happy to be here.

Nancy Tarbell: Can you tell us a little bit about your research?

Daphne Holt: Yeah, so I study schizophrenia and related psychiatric conditions, mainly using brain imaging and quantitative measurements of behavior and symptoms. So I've been focused on the biology of certain symptoms of schizophrenia. In particular, the impairment in social functioning that are so disabling in the disorder.

Jason Anthony: You won the Claflin Award in 2014 and you had a little one at the time. How old was your daughter?

Daphne Holt: I guess she was two then, she's five now.

Jason Anthony: So you're in the thick of that period that we were talking about before, this building a career while also child-rearing. How are you navigating that balance at the moment?

Daphne Holt: Well, it's interesting. In some ways the timing for me was very good, in that, unlike a lot of other women building careers during child-rearing, I was an older parent, I am an older parent. So I had already to some degree established myself and I wasn't in that phase where I was really trying to prove myself for the first time. That was good. But on the other hand, the timing wasn't optimal at all, because I really felt, and I still feel like this period in my career is really the most exciting time of my career. I have a great group, I have some funding, I have some great collaborations and so much that I can accomplish. So when my daughter arrived, there was really nothing I wanted to give up. I still wanted to do everything I was doing before.

But the problem is, when you're a parent, particularly when you're a mother, it means essentially that you've added another job. Maybe a part-time job or a full-time job, depending on the level of your responsibilities, but really then you have two jobs. So something has to go. So for me, it's been things like sleep and exercise and some of the fun things I used to do. But now that my daughter is a little bit older, some of these old activities are coming back.

Nancy Tarbell: So what role has the Claflin played?

Daphne Holt: Yeah, the Claflin was such a wonderful thing for me because I received it just when my daughter was, I guess, about two. She was really little and I just couldn't work the same number of hours that I had been before she arrived. I also needed much more flexibility to be available for pick-ups, drop-offs, doctor's appointments, everything that a little kid needs. So the Claflin allowed me to hire someone to help with all the aspects of my work that require being available at all hours of the day, including evenings. Things like consenting and evaluating subjects at their convenience.

And then the Claflin also allowed me to do a study that I wouldn't have been able to do otherwise, to try a new technique. I've been doing a study where I combine MRI and positron emission tomography, something I had never done before. So it helped me establish a whole new line of research in my lab, which is something that's really important to do at my stage, that sort of mid-career stage. Because if you're not continually growing and expanding in academia and learning new things, you're probably shrinking in some way. But it's not easy to expand your work and try new things if you have hard limits on your time, which parenting imposes.

Nancy Tarbell: You really have used this investment of this extra funding from the Claflin to hire really an extra set of hands, if you will, to leverage your time.

Daphne Holt: That's right.

Jason Anthony: You mentioned the time constraints here, which sound extraordinary to me, not only the research career, but the parenting and I wonder, are there other supports that you do find helpful or would find helpful in order to navigate getting things done?

Daphne Holt: Well, of course I have some really supportive friends, family members, and I've had some great childcare, some of which has been at MGH. Which is, as you were saying, Nancy, a real leader on that front, providing subsidized daycare and backup care, which I have used a lot. And then most, I have to mention my partner, Roger, who's been extremely supportive and spends a lot of time with our daughter and helps with childcare and household tasks. He's also an academic, which helps because he really understands the nature of the job and its specific demands. So we support each other when it's time for say one of us to write a grant or go to a conference.

But you know, we still have quite a bit of that traditional division of labor, surprisingly, it really did surprise me that it worked out that way. But I think these roles are so ingrained in us, I'm guessing because of the way we were brought up and because of how everyone around us is acting. So there really is this very strong societal norm, which has a lot of power still.

Jason Anthony: Let me ask a question I had wanted to ask, to what degree ... We see in academic medicine that women aren't necessarily rising to these top positions yet, even though there are more and more women in medicine every year. Do traditional roles play into medicine and the way that women navigate their careers and the way that these institutions look at women navigating their careers.

Nancy Tarbell: Absolutely. I think Daphne hit on a critical point when we were even thinking about what interventions an Office of Women's Careers could have. Part of what we had to do at first was think, "Okay, what is the culture that we need to think about?" And part of the culture really is this sense of being a place that really cares about traditional values. And the good news is that means we care about families. We care about all of these important, deeply held values, but that means then, how does that play out, that most of us then have a greater sense that women will carry that burden. And you're right. I think it's probably the way we were raised. It's partly the expectation of most people that are around us. And so even if you put in extra supports in an institution, that is still going to be there. That's part of the core of who we are. And for many of us it's an individual choice, but some of that choice is probably a result of the peer pressure and everything else we see.

So these are complicated issues and I think everything we can do that supports women, while not sending a message that we are somehow not capable of achieving in the same way, getting that balance is really, I think what Mass General has tried to do in some of these investments that they've made in making sure women's careers can really hit the ground running.

Jason Anthony: Daphne, I understand that your mother was also a researcher. Is that correct?

Daphne Holt: My mother who sadly passed away a few years ago, she was born in 1937. She was a scientist and atomic physicist actually at a time when there were a lot fewer women in science than there are now and at a time when there were almost no women in physics. She was really a pioneer. She was really an exceptional woman who was so brilliant, so passionate about her work. She never stopped doing it, even after she retired. I just have such fond memories of her working at the kitchen table on her calculations. A bomb could have gone off around her and she would not have looked up, she was so immersed in it.

Jason Anthony: Did she offer advice to you going into a research career or are there any things that you remember her facing that you then had to face?

Daphne Holt: So she and I had really different paths. Most notably, she encountered quite a bit of overt sexism, which I have not experienced. For example, when she was in graduate school, the professor she wanted to work with said that he would never work with a woman and so she had to work with somebody else. She had some other things like that happen where people said she couldn't have a raise or couldn't have a certain salary because she didn't need to support a family because she had a husband. She was also very alone in a certain way. There were literally no other women scientists where she worked throughout her career and she did all of the childcare, cooking and housework in our house. She would say that she had been happy that my father had allowed her to have a career unlike all the men that she had dated before him. That was the attitude that she had to have.

Nancy Tarbell: So she was really a great role model. You were very lucky in that way. I think we often hear from women who want to go into a certain field, orthopedics where there are very few women, neurosurgery, that they really want to know that they can do that, that they had role models in some ways. Having a mom that was so extraordinary, you actually didn't have to think quite as much probably about whether you could do this or not, or is that fair, Daphne?

Daphne Holt: Yeah, I think so. I mean, she had so much confidence and she had so much confidence in us. She always instilled in us the belief that we could do anything we wanted.

Nancy Tarbell: That was great.

Jason Anthony: In 2017, for the first time in US history, there were more women than men enrolled in medical schools in the United States. And that seems like a hopeful sign, but does that mean that we're there? That we've arrived?

Nancy Tarbell: I thank you for asking that question, Jason, because I think many people think exactly that way. That perhaps it's done, that the gender issue is all over because we now have 50% of women entering the med school class. And the truth is, as we talked about earlier, the cultural issues that we face and the gender bias that's even inherent in men and women will persist for many years. And in fact, our young medical students and young women residents definitely feel this pressure still and are hoping that we do not undermine or say it's over somehow and still are there to support them the way we have supported women in the last efforts that we've been talking about today.

Jason Anthony: Yes. I think Medscape, which is a website that compiles information for a physician audience, they came out with their salary study which they do every year. They interviewed 20,000 physicians and they showed that men still earn on average 16 to 18% more than women do and that within the specialties, that more than doubles. An interesting thing that also came out of that study was about aspirations within medical careers. They showed that for those looking at advancement within medicine or those looking to move into administrative positions, there are actually more women looking for those kinds of jobs than there are men and yet we still have a disparity at the top level. We really don't have women represented at the top levels of medicine in the way that they are in the ranks. How do you address a problem like that?

Nancy Tarbell: We need to, in academic medicine, think about how we perform searches for leadership positions. So department chairs that say we're looking for someone to be the department chair of the medicine department at Mass General, how do you put together the right people? How do you make sure you address things like unconscious bias, which we know we all have, men and women. And how do we think about the steps we need to put in place and then the metrics we need to measure after that? But clearly there's still a big problem. When I went to medical school, which I hate to admit I graduated in 1979, 30% of my class was women. So at least 30% should be represented in these senior leadership positions and clearly they're not.

Jason Anthony: My co-host today, Nancy Tarbell, Dean of Academic and Clinical Affairs at Harvard Medical School and our guest Daphne Holt, a psychiatrist at Massachusetts General Hospital. Thank you so much for joining us today.

Nancy Tarbell: Thank you, Jason. It was really a pleasure.

Daphne Holt: Yes. Thank you.

Jason Anthony: And listeners, thank you for joining the Proto Podcast.

Nancy Tarbell: Today's podcast was produced by Sarah Alger, Bradley Klein and Emily Silver.

Jason Anthony: Thank you also to our technical director, Adam Keller. You can find the Proto Podcast on iTunes and Stitcher. Please subscribe and you can also follow Proto on Facebook and Twitter. Thanks and see you next time.