



Praveen Sethupathy: ([00:03](#))

There is a writer that once said that as writers, we are all feeding a large lake. Each one of us is just a tributary. Some of us may be a bit larger in terms of our rivers. Maybe there are some of us whose rivers are more of a trickle, but at the end of the day, we're all actually flowing into this large lake that we call literature that impacts human culture. I think about it the same way in science, that I'm just feeding a lake. That lake is scientific knowledge, but there's something really humbling and calming and peaceful about this idea that it doesn't all rest on my shoulders.

Joanna Meyer: ([00:48](#))

You're listening to the Faith & Work Podcast, where we explore what it means to serve God, neighbor and society through our daily work. Hi, and welcome to the Faith & Work podcast. I'm Joanna Meyer, Director of Public Engagement at Denver Institute and here in Denver, we're in the later stages of the COVID-19 pandemic. We're rolling up our sleeves for vaccinations and taking part in one of the largest public health campaigns in our nation's history.

Joanna Meyer: ([01:17](#))

Like many of you, we look forward to life opening up a bit more this summer. But before we move on too quickly, we're also looking back to make sense of what we've experienced over the last year. The focus of today's episode is exploring the wisdom that can be learned from the experiences of those whose work took them to the heart of the pandemic. We'll speak with a doctor and a scientist who will point us towards greater connection with God, courage and faithfulness in our own work in public life.

Joanna Meyer: ([01:43](#))

It's important to clarify that both of them speak as individuals, not on behalf of the institutions that employ them, and I cannot wait for you to meet them. Our first guest today is Julia Wattacheril. She works as a transplant hepatologist, which means she's a liver doctor, and a physician scientist at Columbia University New York Presbyterian Hospital. When the first wave of the pandemic hit New York City in 2020, she was pulled onto the ICU where she supervised staff caring for patients in the COVID-19 unit.

Joanna Meyer: ([02:13](#))

We all watched the news, you can imagine just how intense that season was. As you'll soon hear, Julia has a deep abiding walk with God, something that was critical to weathering the pressure and the intensity of the last year. Our second guest is Praveen Sethupathy. He is a



longtime friend of Denver Institute. Those of you who work in the sciences may remember that he joined us as the keynote speaker at Callings in Conflict, an event in 2018.

Joanna Meyer: ([02:40](#))

Praveen works as the director of the Center for Genomics at Cornell University, and he serves on the board of directors of BioLogos, which is a Christian organization that invites the church and the world to see the harmony between science and biblical faith. It's an important conversation. I'm excited for you to be hearing it today. Well, Praveen and Julia Welcome to the Faith & Work podcast. It is a delight to have you in our conversation today.

Praveen Sethupathy: ([03:07](#))

Thanks for having me, Joanna.

Julia Wattacheril: ([03:09](#))

It's a mutual delight, Joanna. Thank you for the invitation.

Joanna Meyer: ([03:12](#))

Julia, I'd like to start with you because your experience may be most recognizable for our listeners. I think anyone that was paying attention to the news last year saw those images of New York City when the COVID cases just became overwhelming, but we didn't live it like you did. My desire is not to have you rehash something that was super emotionally intense, but for the sake of helping our understanding, tell us briefly what were those days like at the hospital?

Julia Wattacheril: ([03:39](#))

Thank you for being so mindful about the re-telling trauma. So, specifically for me and the role that I had, it required putting down one of the hats that I wear as a scientist or ramping those endeavors down and then ramping up some of the clinical responsibilities that I'm used to having but in a far different capacity. So it boiled down to mechanics of what to wear, how to prepare physically. Some things were familiar to me, particularly as a transplant doctor.

Julia Wattacheril: ([04:16](#))

I was used to wearing lots of garb when I interact with patients and protecting them maximally, because I can see them pretty much as soon as they get out of the operating room, when their immune systems are massively compromised, and protecting them. So the ideology was very similar in terms of physical preparation, but it was massively humbling as a clinician to deal with an entity that we had never really experienced before.



Julia Wattacheril: [\(04:46\)](#)

How we learn about what to do, whether it's Ebola or an emerging infectious disease is largely guided by people who were closer to the outbreak. So we were learning from people in China and people in Italy before it hit the East Coast, but the scale and the preparation and a lot of anticipatory fear, I was helped by prior experiences.

Julia Wattacheril: [\(05:10\)](#)

So I thought about other infectious diseases that I had encountered abroad or outbreaks that I had encountered previously in my training and I anchored a lot of my preparation on that. When it came to the bedside and what we were seeing, the role that I had was sort of a supervisory role called a ICU triage. When patients enter our hospital to an emergency room, they're usually triaged to either well enough to go home or to come into the hospital.

Julia Wattacheril: [\(05:39\)](#)

Then from the hospital standpoint, whether they're well enough for a floor bed with a certain ratio of nursing care, or if they need ICU level care. So the role that I had was supervising a group of residents who were helping figure out who was deteriorating on the floor, and then getting them to an ICU. At the beginning, it was actually this time exactly last year, that I was doing my first round of shifts.

Julia Wattacheril: [\(06:08\)](#)

What we were seeing were unstable patients progressing in ways that were unpredictable, sometimes staying more stable than usual, based on our clinical paradigms and our scientific expertise. We had patients that were usually on machines that were on their bellies, prone texting relatives, surprising us in a good way. Then we had people that were quickly crashing, because of unknown events, thrombotic events at the time. It was an unknown entity and it was a threat that kept catching us off our footing.

Julia Wattacheril: [\(06:40\)](#)

Just when you would try to have a better understanding of what was going on and we leveraged the scientist's knowledge at the bedside by predicting and controlling. That's why we do research is to not be surprised, and to be able to have a predictable outcome. When you're juggling stability of patients, and also not being able to study it well, or get answers as quickly as you need to, and pronouncing people dead, it became a very overwhelming situation.

Julia Wattacheril: [\(07:09\)](#)



Those of us that were in some form of leadership role, felt that burden additionally, because we're also managing the people that are doing work under us. So their fatigue, their emotional trauma, their ability to get the PPE that they need and when you're a good leader, you want to make sure that your people are well resourced. So it becomes very, very amenable to those of us that are spiritually trained, because our spiritual resources sometimes run dry, we think. Those are all faith growth opportunities.

Julia Wattacheril: ([07:41](#))

So it made it a natural place for me to be as a believer, because I had been conditioned to cry out to God but it also became an opportunity to expand leadership skills into all the unknowns. How to comfort a team when they're all feeling stressed. How do you manage very limited practical resources? How do you justify decisions with families over the phone? How do you support your colleagues who have to make those types of decisions? How do you support the institution as they're trying to move a large ship in a very different direction?

Julia Wattacheril: ([08:14](#))

So those were some of the pressures that we were facing at the time and doing it de rigor. This is who we are, as clinicians and those of us that are in the translational space, we're happy to use our clinical expertise to the degree that we have it, but it was also a quickly overwhelming situation. I think the most overwhelming aspect was what the public faced as well, which is how long is this going to go on? It's exhausting in the short term and sustainably exhausting over the long term, and honestly, I think we're all still dealing with that.

Joanna Meyer: ([08:47](#))

One of the things that surprised me about your experience was how closely you walked with God on the floor of the hospital. How'd you experience God during that season?

Julia Wattacheril: ([09:00](#))

Faithfully present. I would say that I would always be curious if someone were surprised at that aspect, because that tells me that they're not used to people at the bedside who have faith. I think there's a lot more of us than maybe are publicly known. So I'd be curious about the surprise there. The spiritual conditioning or the training periods were part of a practice that's been developed. Those of us that, whether or not we've grown up in the church, it's part of discipleship for me doing what I do, is to constantly question God about what am I being called to, how to use my time, how to steward the resources that are in front of me.

Julia Wattacheril: ([09:47](#))



In those crisis moments, you generally dig your heels deeper into what you know, because you're quickly ascertaining what's gotten you to that point, but you're also ... Those of us in clinical medicine and scientists as well, are very quick to recognize we were out of our training. We are not trained for something, we don't have the skill set in order to do a particular task, or there's a gap in our knowledge.

Julia Wattacheril: ([10:14](#))

So when I face gaps in my knowledge clinically, scientifically, part of it is natural for me to cry out to God and ask for His inspiration, because there are many gaps, and how do you adjudicate your time in terms of addressing those gaps and where you're feeling called to because we're only one human.

Julia Wattacheril: ([10:32](#))

But the spiritual discipline of crying out to God became very intuitive in those moments, because we were reaching the end of our resources collectively as humans, as folks at the end of a scientific pipeline in terms of therapeutics, interventions, and not knowing how to deal with the larger scale and scope of the humanitarian disaster that was unveiling before our eyes.

Joanna Meyer: ([10:57](#))

It's fascinating that you could reach the end of your scientific or clinical knowledge, and the only thing left is crying out to the Lord in that moment. You had talked about training, and I know that you specifically worked with a spiritual director to develop certain skill sets that would help you in your work as a doctor. Could you tell us a little bit more about that? Because I've never heard anyone talk about training with a spiritual director specifically for their work.

Julia Wattacheril: ([11:22](#))

Well, honestly, I don't parse and I think one of the ways that we unhealthily compartmentalize things is, we're humans, we're integrated, right. So I don't think of specifically regarding my work, but that's sometimes the biggest challenge in terms of, it's easy to be holy and pious in certain times of our life. When you're sitting then on a meditation stool, but when you're getting annoyed with all the noises in the ICU and 18 people calling attention and you can't focus, it's a lot harder.

Julia Wattacheril: ([11:52](#))

So I was led to pursue spiritual direction just based on the rhythms of my spiritual growth. I had been doing silent meditation retreats and retreats for a while, and one of the practices that I found that was very helpful, not just for me, but people who tend to be a little bit hyper



analytical and in their brains a lot was the prayer of Examen. So I sort of drifted towards Ignatian stuff through the ... I go to a monastery every quarter, and I had been around the Ignatian exercises for a long time and wondering when is the time? Is God calling me towards this? Because it's a nine month, pretty intense commitment.

Julia Wattacheril: ([12:29](#))

Here I am thinking, "God, is this the wisest way for me to spend my nine months?" I stopped asking those questions largely because I know the answer, almost always but in pursuit of doing the Ignatian exercises in 2019, I had found a spiritual director. We both enjoyed our interaction so much, I just continued with her and the concept that drill deep in these moments of either of chest compressions or decision making, or what do we do, that I needed coaching on is that God's in those concrete particulars.

Julia Wattacheril: ([13:01](#))

It's not a matter of me being able to articulate a prayer in those moments. God's with me whether or not I'm aware, in those moments. It's nice when I can breathe out a prayer, but the metronome of my heart is always trying to pursue Him. Sometimes I'm not cognizant of it, but the pursuit of the spiritual director has largely been free for me before, during and after the spiritual exercises, because it has revealed to me how grace is infused in everything that I'm doing. I'm sometimes limited based on my own awareness of what's going on, but that does not limit God.

Joanna Meyer: ([13:40](#))

What a critical realization for those moments, anytime, but especially in the middle of the crisis moments of a pandemic. We will link to some resources on Ignatian spirituality in our show notes, but remind us what is the prayer of Examen if some of our listeners have never heard of it?

Julia Wattacheril: ([13:57](#))

It's almost like a prescription that I give to those in the sciences and then also some individuals that are in finance, et cetera and it's about a 15 minute exercise. I first engaged it when I was in the Gotham Fellowship, and it parses your time and two to three minute intervals. Part of it is silence and creating space, which it's hard to transition abruptly into engaging spiritual concepts. So it's a period of quieting, followed by a recounting of the elements of your day.

Julia Wattacheril: ([14:32](#))



I think originally in the 13th century, they recommended it in the morning and the evening, and it's dependent on the individual when they maximally derive their benefit. Some people do it twice a day, but that reflection is just going through what we call concrete particulars or the mundane things of the day. I had that Zoom call with this collaborator and we would talk through this, that and the other and you're looking at the agenda of your day, but you're looking at it with the lens of the Spirit and what God might be trying to show you.

Julia Wattacheril: ([15:03](#))

One of the teachings that I learned in the Gotham Fellowship from one of our instructors was that emotions sometimes respond quicker than our thoughts, and for someone who's highly cognitively trained, that was hard for me to understand as well, because I didn't feel as well emotionally trained as I did analytically trained. So when I looked at, it's not just the events of the day, that conference call that got tense but I look at what was I believing in that tension?

Julia Wattacheril: ([15:31](#))

So one of the aspects asks you to reflect on one particular moment of your day, and oftentimes, it's why did I feel angry, threatened? It's based on an emotional feeling or why did I think my identity was threatened based on the feedback that was coming at me on that call? I'm a child of God, my worth is determined outside of the judgment of that individual on that conference call in that meeting, whatever. But it's boiling down to a particular moment, where you feel it embodied in your physiology, in your body, and in your emotions, but looking at it with patience, and with grace and receiving from God, what it is that you were believing in that moment.

Julia Wattacheril: ([16:14](#))

Then the last aspect is praying in the Spirit about how God wants you to deal with that issue. It can be very finite and very seemingly minuscule portion of your day, but it becomes an opportunity for spiritual growth and that's why I link it to muscle memory a lot. It's a lot in the micro movements and then as you start to see the pattern of whether it's sin or disbelief, or separation from God, that's what I mean by sin, or something that you're challenged by, you begin to see recurring themes in your life and that becomes prayer requests to others are elements of accountability, and links to this larger narrative that God's building in your life, and where He might be calling, bidding to you but had you not paused, you wouldn't have noticed it.

Julia Wattacheril: ([17:03](#))



So that's why I like it, because it starts with 15 minutes, which most people can devote to. Then you just build confidence into like, when I sit down with God, there is meaning there. So spending an hour or a weekend or a week becomes a lot more feasible long term.

Joanna Meyer: ([17:18](#))

I love that those exercises, that muscle memory had been built in your life before you needed it. So in those crisis moments, you were able to call him the Lord's presence. Such a powerful example. We'll link to some of those resources if our listeners are curious and learning more about Ignatian spirituality. Praveen, I'd like to turn the conversation to you.

Joanna Meyer: ([17:38](#))

Because when I met you and learned about what you did, I learned that you researched RNA, I sensed it was important work, but in my mind, I thought "Boy, that's really obscure." Little did I know that RNA would be at the heart of some of the issues we're dealing with vaccines and the pandemic. So it's become dinner table conversation. So tell us a little bit more about what you do.

Praveen Sethupathy: ([18:00](#))

Sure, Joanna. So I think the easiest way to describe what I do is that I study that dark matter of the genome. What I mean by that is the full stretch of DNA that's inside most of the cells of our body, we call that our genome. The word genome actually means the full library of genes, but what we've learned is that genes actually represent a very, very small fraction of the genome. So a mystery has been, what is all the rest of it, and the rest of it is what I'm referring to as the dark matter.

Praveen Sethupathy: ([18:40](#))

So for the last couple of decades, in particular, a lot of scientific work has been done to try to illuminate what that dark matter really is and what we've found is that littered throughout the genome are these little regulatory switches. Or you can think about them as dials, rheostats, when you come into a room and you turn something up or down to control the light, we have those kinds of things that are kind of scattered throughout our genome.

Praveen Sethupathy: ([19:11](#))

They're not genes themselves, but they're really important for controlling which genes are turned on, and which genes are turned off. This turns out to be really, really important, because most of the complex diseases that afflict our loved ones, whether it's psychiatric conditions, or





diabetes or heart disease, they can be traced back to the wrong set of genes being on and the wrong set of genes being off.

Praveen Sethupathy: ([19:39](#))

It is these switches or these dials that are involved in controlling that. So something is going awry with the switches, they're not functioning properly, and now things are going haywire and all kinds of genes are getting turned on when they're not supposed to be or getting turned off when they're not supposed to be and this is really fundamentally what is contributing to our risk for various diseases.

Praveen Sethupathy: ([20:04](#))

So, in my group, we're interested in figuring out where are all of these switches, and which ones are relevant for what diseases. The connection to RNA is that it turns out that some of these switches are actually little tiny RNA molecules. So that's where a lot of the RNA work comes in from my own group.

Joanna Meyer: ([20:25](#))

That's so cool, and remind me which diseases your group has been focused on over the last few years.

Praveen Sethupathy: ([20:31](#))

So we study a lot of diseases that are focused on the gastrointestinal tract as well as the liver. So we've looked at diabetes, colon cancer, rare forms of liver cancer that affect kids and adolescence, Crohn's disease, which is an inflammatory condition of the gut, as well as fatty liver disease, which is something that Julia has a lot of expertise in as well.

Joanna Meyer: ([20:58](#))

I didn't realize that both of you guys were liver experts on this call. That's awesome. That's awesome. Now, Praveen, you didn't have a direct hand in developing the vaccines, but if anybody is an expert to talk a little bit about how they work, would you tell us a little bit about the science behind the Moderna and the Pfizer vaccines. This doesn't apply to Johnson & Johnson, which is one that I have, but tell us a bit about the science and how those vaccines work for ... In lay people's terms.

Praveen Sethupathy: ([21:24](#))

Absolutely. So to understand how vaccines work, we need to first understand what a virus is and how it works. A virus has genetic material, just like you and I do, it has its own genetic material.



When little stretches of that genetic material gets activated, it makes something called mRNA, or messenger RNA and this is what everybody has heard so much about recently. That messenger RNA carries the instructions to make proteins, and proteins are really the stuff of life. They are what make viruses do what they do and they're also what makes our cells in our body do what they do.

Praveen Sethupathy: ([22:05](#))

Traditional vaccines are focused on trying to get those individual proteins into people, so that they kind of mimic the overall virus. Our body elicits an immune response to one of those little protein fragments and then the next time around, when the whole virus comes to infect the person, the body remembers it, and is able to attack it.

Praveen Sethupathy: ([22:33](#))

The new technology with Pfizer and Moderna is that it uses the messenger RNA instead of the protein, and here's why this is really critical. Using the protein to try to elicit a response is a very laborious proposition. The production of the protein for various technical reasons is really, really difficult, time consuming, laborious and expensive.

Praveen Sethupathy: ([23:03](#))

So particularly in a pandemic like this, where time is of the essence, it's not an attractive proposition to embark on something that is already well known to be very time consuming. So one idea has been what if we take a step back, and we actually develop a therapy based on the mRNA and remember, the mRNA has the instructions to make the proteins that are ultimately what our body is eliciting a response to.

Praveen Sethupathy: ([23:33](#))

It turns out, that's a lot easier to do, because we know how to synthesize mRNA molecules in the lab, and we can synthesize it exactly the way that we want it to be. So if we know what the mRNA molecule is, that's making the protein in the virus, we can actually synthesize that and insert that into people as a vaccine instead of the original protein. Again, the reason why that's so advantageous is that synthesizing that mRNA turns out to be much faster, cheaper, and a lot less laborious than producing the protein.

Praveen Sethupathy: ([24:12](#))

So it's been on scientists minds for about three decades now to try to use this kind of technology. There have been a number of different roadblocks, however, that have prevented



the use of it in people. So now with Pfizer and Moderna, what's really exciting is we're finally at a point in which we have leveraged that technology to be able to impact human health.

Joanna Meyer: ([24:37](#))

One of the things that surprised me was, people often look at the development of the vaccines and they say, "Oh, that was so fast. We got it in less than a year," but what surprised me is that the researchers, like you said have been working on this for decades. They have been waiting for an opportunity to deploy this technology. So when the opportunity came, they were ready to run, which makes me think, oh, this is not some fly by night operation. They've just been waiting to be called upon and I heard that I realized that those scientists had been laboring in obscurity for decades, some of them even struggling to get funding to keep up with their research. I think that's probably the tale of many scientists.

Jeff Haanen: ([25:14](#))

Hi, this is Jeff Haanen, the founder of Denver Institute for Faith & Work. Thanks for listening to the Faith & Work podcast and for let me interrupt you briefly to share just a request. I want to ask you to consider becoming a financial contributor to Denver Institute. Each day thousands of people listen to our podcasts, engage our short courses and grow spiritually as a result of generous donors like you.

Jeff Haanen: ([25:35](#))

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Jeff Haanen: ([25:56](#))

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Joanna Meyer: ([26:20](#))

How do you maintain a sense of perspective and optimism when the projects you're working on stretch over decades, and how does your faith sustain you for those seasons?

Praveen Sethupathy: ([26:29](#))



That's a great question, Joanna. It's something I do think about a lot. I think it has to do with realizing that you are working towards something that's bigger than yourself. So I actually think it's a lot like the way that authors and writers talk about their work. Oftentimes, when a really wonderful piece of literature comes into view, we don't usually think about how long it took, maybe even a lifetime for the author to really construct this in a manner that they were pleased with and that they felt would really have the largest impact on their fellow humans.

Praveen Sethupathy: ([27:09](#))

All of those details are usually obscure to us. This is the way that it is with scientists, too. There's a writer that once said that as writers, we are all feeding a large lake. Each one of us is just a tributary. Some of us may be a bit larger in terms of our rivers. Maybe there are some of us whose rivers are more of a trickle, but at the end of the day, we're all actually flowing into this large lake that we call literature that impacts human culture.

Praveen Sethupathy: ([27:42](#))

I think about it the same way in science, that I'm just feeding a lake. That lake is scientific knowledge, but there's something really humbling and calming and peaceful about this idea that it doesn't all rest on my shoulders. I don't have to all come up with it tomorrow, but that I am working methodically toward flowing a tributary toward this lake and there is a wonder, and even a luxury in the opportunity to be able to do that.

Praveen Sethupathy: ([28:11](#))

So when I put it into perspective that way, you realize that this is a long game. There are things that you are doing now that may impact science and humanity decades from now, but you're not so worried about why that isn't happening tomorrow, because you know that you are contributing to this lake.

Joanna Meyer: ([28:33](#))

I was enjoying some of the stories of the vaccine scientists. How they couldn't get many of the scientific journals to pay attention to their research. It wasn't trendy. No one was excited about what they were doing until this unique virus came along and all of a sudden, people got excited and they had to come out of obscurity. So we thank you for contributing to that lake of knowledge. I'm going to ask you to put on your state's person hat for a second because I don't know if many people have a favorite scientist, but Praveen, you're my favorite scientist, because you have this amazing ability to synthesize your work in the sciences, which can often be viewed suspiciously by the faith community with a deep, deep, devoted following of Christ. So I wanted



to ask you a little bit about what it's been like in this season, as you speak on behalf of the science community.

Joanna Meyer: ([29:19](#))

There's been so much debate around both the reality of the pandemic. I have family members that have denied that it's really something significant as well as the safety of the vaccine. Really, the validity of scientific truth has been called into question in the season. As a scientist, how hard is it been to see your work questioned?

Praveen Sethupathy: ([29:40](#))

Thanks for that question, Joanna. I do feel like it's a really important one, but first, let me just say thank you. That's very kind of you to share those words with me and it means a lot coming from you. Joanna when I think about the scores of devoted, dedicated scientists and no exaggeration to really say some of them working round the clock to expedite, but in as safe and as with high integrity as possible, the development of these vaccines. I know some of these people, and I certainly know of many others.

Praveen Sethupathy: ([30:16](#))

When their work is discredited, when their work is called into question, when their motivations are called into question, it is deeply troubling and distressing and although I was not at the forefront of the vaccine development myself, I know some of the people that were, and they are some of the most honorable, dedicated, committed, not just scientists, but human beings.

Praveen Sethupathy: ([30:47](#))

So it is hurtful when accusations are levied or trust isn't given to people who are working so hard on behalf of the American people and the world. I have to say also, the mistrust that is observable between some in the community and of scientists, it didn't start yesterday. It's been brewing for some time and I think it is incumbent upon us as scientists to understand, appreciate the source of the mistrust, and to work hard toward actually healing some of the wounds and bridging the gaps, the growing chasm between scientists and many people in the country and some of those people of faith.

Praveen Sethupathy: ([31:38](#))

So I think while it is natural to feel frustrated, to even feel hurt, I think that we do have to recognize that we have a role to play in reaching out. A lot of people in our country feel condescended to, they feel as though their concerns are not heard. They feel as though their concerns are not validated. So the vicious cycle of mistrust continues.

Praveen Sethupathy: ([32:02](#))

So I think it is absolutely critical for us to get beyond that feeling of hurt and frustration, which can sometimes be quite maddening. But I think it is our responsibility to reach out, find ways in which to build trust, so that so many of the streams of misinformation can start to be separated from fact and we can be a part of the solution instead of staying in our ivory towers and complaining about how people don't trust us.

Joanna Meyer: ([32:33](#))

I have a few questions for both of you. Vaccine hesitancy is real. I got a text over the weekend from a local vaccination site that said, "We have shots going available. Appointments are empty. Please sign up." So you realize that there are significant numbers of people that have expressed concern are saying "I'm just going to wait, I'm not going to get my shot yet."

Joanna Meyer: ([32:56](#))

There are a handful of people for whom there might be a medical condition that would encourage caution, but would you respond to some of the concerns that people may have about choosing to receive a vaccine? How would you reassure them as they're thinking through that decision?

Julia Wattacheril: ([33:12](#))

I guess I'll start. I would want to know specifics and treat them like an individual rather than make assumptions, and make sure that, not in a talking at, or talking ... It's power with in the trenches when people are doubtful and mistrustful. That came from somewhere. So understanding where their hesitancy or questions are coming from, let me give you some concrete examples. So I went around my office shortly after people were eligible for vaccines and those of us that were frontliners got vaccinated pretty early and some of our administrative staff, mostly women of childbearing age, mostly women of color.

Julia Wattacheril: ([33:59](#))

I have a heart for reaching them and making sure that information, because their strain is large and wide, and permission to speak openly. So it's not the power of doctor over a patient. They're not coming to me with seeking clinical authority. I'm one of their faculty members. So I asked, "How many of you have gotten your vaccines?" And none of them at the time that they were eligible and I was just curious.

Julia Wattacheril: ([34:28](#))



I said, "I don't start off with a stance of I'm trying to change your mind. My stance is I'm trying to engage you and hear where you're at. That's all," and I do that with weight loss, with my fatty liver disease patients. I do that with violence in the home. Not trying to help you escape necessarily, not prescribing an exit strategy yet. I'm trying to see where you are, and listen and help and I come with that openness.

Julia Wattacheril: ([34:57](#))

Many of them were afraid of the ability for breastfeeding mom to get a vaccine, many of them had not experienced care or trust during their labor and delivery experience, as a woman of color. I think we just finished black maternal health week. Those real time, non-Tuskegee era failures need to be addressed before I ever have permission to speak into their current acceptance of something I may or may not have a strong feeling about. So many of them were afraid of the allergic reaction that can happen.

Julia Wattacheril: ([35:35](#))

Anaphylaxis, and that aggrandized in terms of its probability in their mind. So I talked to them, if they were open to hearing facts about it, I supplied those, but at the end of the day, I said, "You know what? I'm happy to go and sit with you in the 15 minutes, or 30 minutes, and I'll come get your vaccine with you." None of them took me up on it, but three weeks later, all four of them had their vaccines done and I give them sources of information.

Julia Wattacheril: ([36:03](#))

That's a big thing we've been working on for five to 10 years, is how do you look at things online? I do it on an individual basis with my patients, but what red flags should you see in an article, and how do you presume authority that that person has the ability to speak truth into your life, because doctors don't always have it. We have to work to maintain it, we have to rebuild, such that when our scientific colleagues say, "Trust this," we're at the point of care where patients are distrustful. So it's being very specific. It is not taking a stance of within the next 30 seconds, you need to bow to my recommendation. It is a, I need to hear where you're at.

Julia Wattacheril: ([36:46](#))

The urgency and emphasis on, I'll just wait and see. These are also women that care for me. When I walk out of clinic, they say, "How was your day?" They scheduled for me. So when I say I'm really worried this person is going to be infected before they get their vaccine, they know I care. That's love in action. I'm not doing it because I'm making a buck, because I'm a consultant



for the company. It's because seeing what I saw last year, I am hard pressed to make sure that person does not end up in an ICU bed.

Julia Wattacheril: [\(37:19\)](#)

So some of the other hesitancy points besides anaphylaxis, or around women of childbearing age also include the potential that, as Praveen so eloquently described RNA vaccines, when people hear a genetic material, sometimes it gets labeled that way. There's a sense that it integrates into the DNA, and that it becomes a perpetual, self replicating part of their cellular replication.

Julia Wattacheril: [\(37:51\)](#)

So understanding that there's a fear around genetics in general, and gene manipulation. So a little bit of education around what is actually happening at the cellular level, without saying, "Where were you in fifth grade science?" Not demeaning the person. That's where educators can help us. That's where public health individuals can help us is bringing the public knowledge up, such that it is not at a stressful physician encounter, where we're doing 90 minutes of work in 30 minutes and trying to teach a public health course, in the course of five minutes.

Julia Wattacheril: [\(38:28\)](#)

That's where the collective aspect of regulatory bodies on misinformation, public health measures, et cetera. That's where we start to get very interdisciplinary and big scope, because it is overwhelming. On the one by one basis, there's only so much we can do. To deal with the problem at hand, we have to build trust systematically as well, structurally as well.

Praveen Sethupathy: [\(38:51\)](#)

Julia said it beautifully, and I wholeheartedly agree with everything she said. The one thing I might add, and maybe just underscore, since I think she already alluded to it is in as much as possible, it has got to be about relationship building. So even if I have all of the eloquently stated information, I'm just the 57th source of information to someone. Why should they trust me over the previous 56, which have been just as disorienting? So I think relationship building, giving them a reason to actually believe that I genuinely care, and that they're not just a project for me, I think goes a long way because it enables a longer term, multi day, perhaps conversation beyond just tidbits and sound bites.

Praveen Sethupathy: [\(39:40\)](#)

So I think it is really important and as Julia said, it's critical to validate the concerns that people have, whether they be medical or ethical or philosophical. There are valid considerations across





all of those dimensions. So to not treat people's concerns as valid just feeds the narrative that scientists aren't to be trusted. So I think it is absolutely critical that we validate folks' concerns and help them to understand that there is a good way to think through some of those concerns, but that I fully appreciate you may not want to do that with me until you trust me.

Joanna Meyer: ([40:20](#))

Beneath this conversation of the science and the medical aspect of the vaccines is a broader cultural conversation that pits individual liberty versus the common good and public health. I'm wondering from a Christian perspective, can you make an argument why someone would want to accept a vaccine?

Praveen Sethupathy: ([40:40](#))

Julia, you can start.

Julia Wattacheril: ([40:44](#))

Again, if I'm speaking in a Christian context, I would go back to what Jesus informed us that are our two basic and most important commandment. So love the Lord, your God, with all your heart, your soul, your strength, and your mind, and what does that mean? That means being responsible with ... Loving God also means how you steward your brain, your body, the expressions of that love how you steward information and being wise about that. Then love your neighbor as yourself.

Julia Wattacheril: ([41:19](#))

So we quickly, sometimes in church context, go to the love your neighbor without the self. So the self means dealing and talking about relational hurts that led to mistrust. Why you're hesitant about anything, taking anti-hypertensive medications or the vaccine. What is it that you're believing about yourself and your path towards goodness and healing and repair of certain injuries or things that you may or may not know where they came from and then loving your neighbor.

Julia Wattacheril: ([41:48](#))

Allowing them to have the same access, the same level of freedom, the same level of pursuit of their dreams, their hopes, their flourishing. Stewarding all of those things, but also not ignoring the self. I think that's sometimes what happens is we tell people, "Go love your neighbor and get your vaccine," but we're not addressing the deeper wound of how they have not yet been receiving love yet themselves from their community.



Julia Wattacheril: ([42:20](#))

Once that shifts and it honestly doesn't take years. It takes a listening ear and someone paying attention for them to feel like, oh, this is something that I have not yet named for myself and I can pursue this for the sake of the community. In some cultures, it's easier than others. With Eastern backgrounds or community, or sort of honor based cultures, it is part of the ethos to care for the community. Whether or not we've done a good job of that in the church is a separate story, but I would leverage the two commandments of Christ and each aspect of them and what it looks like as a disciple of Christ to be honoring of those commandments.

Praveen Sethupathy: ([43:05](#))

We often say in Christian circles that Jesus came not to be served, but to serve, underscoring Julia's point. He took the calling to be a King and showed us that the way to execute that calling is to demonstrate a willingness to do what was worse for Him, because it was best for us. We're called as followers of Christ to be image bearers of the King. So this is one of those beautiful opportunities that we have.

Praveen Sethupathy: ([43:44](#))

Some of us might be afraid of the risks, and it's a separate conversation to talk about the risks that are present with the vaccines and how minimal they actually are, but even if one persists in the concern about the risks, what I would offer is there's something just so fundamentally Christian about the idea of sacrificing oneself, not to allude that that's what it means by taking a virus, but to be willing to put oneself in even a little tiny bit of risk for the sake of the betterment of the city, for the good of the whole.

Praveen Sethupathy: ([44:31](#))

I think that it's hard to escape that that is a central mission and message of Christ. I think as a Christian, we would agree that He is our ultimate example and the One who's we are supposed to image, reflect and represent in the way that we behave and treat one another. So I've often clung to that as well as the commandment to love your neighbor as yourself as really very clear callings, to be willing to put myself out there for the sake of others.

Joanna Meyer: ([45:10](#))

Thanks for your insights. Such powerful answers. It encourages me greatly to know that the two of you are at the helm, leading some of these conversations. I love that our listeners have gotten to hear from you because I think we talk about integrating our faith and work, and really that means pressing into what it looks like to work with excellence and address those gaps, and really look at systemic brokenness in each of our industries and you two model that beautifully.



Joanna Meyer: ([45:34](#))

So thank you for everyone who isn't a scientist or a doctor who's listening today who can follow the model that you've said of what it looks like to truly be a Christian in our work. It's inspiring for all of us. So we will continue to pray for your role as comforters around bedsides, as spokespeople, as good thinkers, addressing the brokenness in healthcare and science today. Thanks so much for joining our conversation.

Praveen Sethupathy: ([45:59](#))

Thank you, Joanna. It was really fun.

Julia Wattacheril: ([46:02](#))

Absolutely. It's been a pleasure.

Joanna Meyer: ([46:07](#))

What a privilege to speak with two faithful, faithful Christians. If you're intrigued by our conversation today, I direct you to our show notes where we have two important resources for you. The first is that we'll link to the Ignatian exercises and the prayer of Examen that Julie mentioned, and second we'll direct you to the Faith & Work Classroom. I don't know if you knew this, but Praveen contributed to a course there on bridging faith in science, and if you have not checked out the Faith & Work Classroom yet, what's keeping you from visiting it?

Joanna Meyer: ([46:34](#))

It's an amazing online library, free resources that can be used for individuals and small groups to learn about faith and work in public life. The courses in there are fantastic. We have content from pastor Tim Keller, journalist Katelyn Beaty, and creatives like Cam Anderson, Erik Lokkesmoe. You can also find the Faith & Work Classroom at [denverinstitute.org](http://denverinstitute.org) in the courses section.

Joanna Meyer: ([46:56](#))

Thanks for an interesting conversation today. We look forward to connecting with you again in two weeks. If you've enjoyed this episode of the Faith & Work podcast, please subscribe, leave a review or share it with a friend. The Faith & Work podcast is produced by Denver Institute for Faith & Work. We believe that work is a way to love God and serve our neighbors. To learn more or to make a financial contribution, visit [denverinstitute.org](http://denverinstitute.org).