

Dr. Jill

Your Functional Medicine Expert®
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[#123: Dr. Jill interviews Rian Doris on Optimal Health through Flow States](#)

Dr. Jill 0:13

Hello everyone! Good afternoon, and welcome to another episode of Dr. Jill Live. I'm here with a special friend and guest, Rian Doris, who I'll introduce in just a moment. As you know, you can find all episodes, if you've missed any, on YouTube, iTunes, Stitcher, or wherever you listen to podcasts.

Dr. Jill 0:28

Today I have a podcasting expert, a brilliant researcher, a friend, and someone I just have so much admiration and respect for: Rian Doris. Let me introduce him, and we will jump right into our discussion.

Dr. Jill 0:39

Today we're going to be talking about his area of expertise, which is flow states. Now, you've probably heard me talk about flow here because I love the concept. I love the idea, and in my own work, I found it to be absolutely essential, not only for a fantastic life of optimal performance but also for health and healing. We're going to dive in today with the expert to find out more about how that can help your health and even your mindset and your ability to accomplish all of the things that you want to do in life.

Dr. Jill 1:05

Rian Doris is co-founder and CEO of Flow Research Collective, the world's leading peak performance research and training institute. This is focused on decoding the neuroscience of flow states and revolutionizing the way we approach work—and I'm going to add health and healing to that today. Rian has helped thousands of

entrepreneurs and executives achieve peak performance, from Accenture to Audi to the co-founders of Ethereum.

Dr. Jill 1:29

His work has been featured in Fast Company, Forbes, and Big Think. He's also the co-host and host of Flow Research Collective Radio, [which] is an iTunes top [10] science podcast. He holds a degree in Neurophysiology from Trinity College in Dublin and a Master of Science in Neuroscience from King's College in London. He's currently completing an MBA at Quantic University. You must love to learn, Rian, like me.

Dr. Jill 1:57

He's currently Co-Founder of Flow Research Collective with Steven Kotler. He has worked with best-selling authors and many other people. We actually met through a marketing person that we both use, and when I was working on my book, she was gracious enough to connect me to you. It was just a fast friendship, and I love and respect you and what you're doing. So, welcome, welcome, welcome! I'm so glad to have you here!

Rian Doris 2:19

Thanks, Jill. Thanks so much for having me! And yes, as you know, I'm a huge fan of yours as well. It's been really great to build this relationship with you over the last couple of years.

Dr. Jill 2:28

Thank you. I always love to start with [one's] story, because [one's] story drives what we do, why we do it, and the purpose and meaning behind our lives. I'd love to know, just very briefly, where you grew up. Obviously, you have a great education, and you're continuing to learn and grow. Then, how did you get into flow research? And what intrigued you to find out more about this and actually be, I think, on the leading edge of delving into what this means for our health of mind, body, and spirit?

Rian Doris 2:52

Yes, it's a fun question. I grew up in Ireland, which is going to explain the slightly contorted accent for people. I grew up on the west coast of Ireland in a pretty remote area—a county called Mayo. I describe it to Americans as the Alaska of Ireland, right on the tip of the Atlantic, one of the closest spots to New York from Europe.

Rian Doris 3:20

When I was ages 1 through 12, I would go to India every year with my parents. They had a meditation practice that they did in a part of southern India called Chennai. I actually learned, funnily enough, to walk as a one-year-old child in an Indian ashram, which was a bizarre contrast between the back of beyond in the country in Ireland and then India—a very, very, very, stark contrast, and juxtaposition.

Rian Doris 3:48

I had a lovely childhood. And when I was 13, I was on holiday with my parents in Croatia, which is a country in the middle of Europe that, back then, wasn't in the EU. I was with my little brother, and we were wandering down this beach, and we found this semi-abandoned water park. We had a great time walking up the stairs that were semi-rotten, and there were missing planks on the stairs 100 feet up.

Rian Doris 4:22

One of the main slides we were going down was one of these vertical, sort of 100-foot drop water slides. We went up and down it a few times. On the fourth or fifth time I tried to do a somersault off the bottom of the slide, I semi-rotated and just went headfirst into the concrete bottom of the pool, which was only about three feet deep. Again, this was a semi-abandoned water park in Croatia before it was in the EU, so regulations and all that were a little loose. That resulted in about seven years of neurological debilitation, which was pretty significant.

Rian Doris 4:55

The first year after that, I was almost fully in bed. I couldn't remember the names of many of my close friends and acquaintances. I couldn't remember the name of my favorite band. I really struggled from then the whole way through to age 19, for about six or seven years after that accident. In the middle of that, I was dealing with mental health challenges as well—anxiety and depression.

Rian Doris 5:21

I came across Mihaly Csikszentmihalyi's research on flow state. Reading about this state of optimal performance and deep absorption, where all of these performance outcomes go through the roof, was incredibly compelling because I was in this dysfunctional state at the other end of the spectrum.

Rian Doris 5:40

I dove into positive psychology, neurobiology, and neuroscience and became obsessed with this world, largely in an attempt to fix my own brain and get my own cognitive functioning fully back online. Then, I came across Steven Kotler, who had been building on a lot of Mihaly Csikszentmihalyi's work.

Rian Doris 6:02

Steven and I started working together, and we worked together for a number of years. And then we ended up co-founding the Flow Research Collective together, [which was] almost four years ago now. There's a lot more in there within that story as well, of course, but yes, those are the broad strokes.

Dr. Jill 6:18

Wow! I knew some about your journey, but I didn't know the detailed story about your injury and concussion. It makes so much sense, because as healers, often we [can

identify better with others through our experience]. And whether you're in research or whatever, you're bringing this incredible information to the world. Even if it's performance, I consider that [to be in] this realm of healing because you're helping someone be the best version of themselves, whether it's mind, body, or spirit.

Dr. Jill 6:40

I also love that you had this really unique childhood where you got to see the power of meditation from an incredibly young age. So, you kind of knew from your parents this power of the mind, right? Do you think that's what clicked for you?

Dr. Jill 6:56

I never want to say, ["it's all in your head"]. When people visit me and they have this chronic, complex condition, it's never in their heads; it's never just the cause of their thinking. But, as you and I know, there's such a powerful ability to overcome the odds by how we think.

So tell us, your first intro was—I always say his name wrong—Csikszentmihalyi, right?

Rian Doris 7:20

Mihaly Csikszentmihalyi, yes. Some of the PhDs that we have on our team say the biggest thing they learned during a PhD was how to pronounce Mihaly Csikszentmihalyi's name.

Dr. Jill 7:29

I've said it thousands of times. I still stumble, so I'll just point to you, and you'll have to say it. But you first came across his research. Do you remember, back then, what were your first thoughts? Did you have any concept that there was an idea of flow states or high performance through this altered state? Obviously, it transitioned your

entire life, but do you remember how you thought about it or what you felt when you first came across that?

Rian Doris 7:58

Yes, I do. I actually came across some other work before I came across flow [states]. So, at 15, I was actually living on my own, funny enough, in an apartment in Dublin. I went to boarding school in Dublin, and then, for one year, my parents were kind and trusting enough to let me live on my own. But it was a tough year. I was living in this tiny little apartment in south Dublin in the rainy—during the winter—part of the school year.

Rian Doris 8:27

I found this book on the shelf there that I think was the previous owner's book; it wasn't my parents', and it wasn't mine. It was called *Blink* by Matthew Syed, and it's one of those core books that argue that talent is a myth and that all capability is in some way, shape, or form learned through practice and access to flow state. That book just shattered my paradigm and really installed a growth mindset for me. It instilled this sense of agency, in the sense that we can actually determine our future and that the results we achieve and the places we end up in life are ultimately a function of choice and volition rather than just circumstance and predeterminism. That was actually the book I first came across that opened me up to this whole world.

Rian Doris 9:21

Then, I had this weird experience from [ages] 15 to 18 of ordering all these books on Amazon and buying all these books that I [later] realized my parents already owned. When I was younger, I used to mock the fact that they meditated. I thought they were hippies. I thought it was silly and goofy. Then, all of a sudden, I went full circle into reading and learning in the world that they were already in.

Dr. Jill 9:41

Flow.

Rian Doris 9:44

Yes, exactly.

Dr. Jill 9:45

When you first found [the book] Blink, it wasn't like, "Oh, this is my parents' world." It came together later, right?

Rian Doris 9:54

Exactly, yes. So I ended up going full circle—which was hilarious—finding their bookshelves [to be] the most interesting bookshelves around, which was funny after having been a rebellious kid earlier. Then, I came across Mihaly Csikszentmihalyi's book, Flow. I listened to the audiobook, which he now writes himself. It's a very musing audiobook. Then, I came across Steven's work on a podcast with Dave Asprey, whom I know you know, Jill. I added him as a friend on Facebook, which I had a habit of doing.

Rian Doris 10:22

If I met someone or heard [about] someone cool, I would just search for them on Facebook and try to find their personal account, and then just click 'add friend.' I did that when I was about 17. A couple of years later, I had kind of forgotten who Steven was at the time; I vaguely remembered. He posted a Facebook status asking for interns. I was only 19 at the time, and I shot him a Facebook message that [said] "I want to be your intern." That's where it all began.

Dr. Jill 10:49

Wow, I love that, and I love your drive. This is one thing, I think, that I see with a lot of people who are very successful. There's this internal drive to find answers and figure [things] out, whether it's your problem, someone

else's problem, or whatever you come across in there. You clearly had that. Because, at 15, when you read the book Blink, this was after your accident. You were actually in the midst of rehab. Were you, at that time, struggling cognitively? How were you feeling at that time when you started to really find this information?

Rian Doris 11:16

It was still challenging. Yes, I still had pretty severe symptoms. At that time, I had fairly challenging mental health symptoms. It had been years and years of being physically debilitated, and that had started to take its toll on my spirit. I was feeling low and struggling with depression and anxiety at the time I found the book, Blink.

Rian Doris 11:38

But yes, I definitely agree that there is this innate desire within certain folks to find answers. Tim Urban, who's the author of a blog called "Wait But Why," which is one of my favorite blogs. He calls it "clearing the fog," and it's that desire to just clear the fog and get clarity on these big answers to foundational questions about life and the human condition. I definitely had that at that age.

Dr. Jill 12:02

Yes, and you continue, again, to bring insight to the world. This reminds me of Malcolm Gladwell's book, Outliers. I think that's the one that talks about the 10,000 rule... I remember, for me, that was—I read Blink as well, but I remember thinking, "Oh, you know what? This is why I'm good at what I do because I put so much time and energy into it." And I love what you said because if you're out there listening, sometimes you'd be like, "Well, I'm not the prodigy in the violin" or "I'm not the sports prodigy," but there is a big piece to this that is practice, practice, practice, and just spending the time. Even as a medical detective, I'm not that smart; I've just spent a lot of hours. Same with you as well—not that you're [not smart]; you

are brilliant. But the amount of time we've spent studying and understanding these topics, I think, is what gives us that edge.

Dr. Jill 12:44

And it's encouraging because, like I said today, what I want to talk about is really going into flow. What is it? You'll tell us all the expert answers on this. But also go to: How can that actually help your physical health?—because I think it's overlapping. So, let's start there. Define flow for those of us—people out there—that are like, "What is flow?" "What are you talking about?" Let's get the basics [straight]: What is flow? Then, let's talk about: What are the steps and the types of mindsets that get us to that state?

Rian Doris 13:11

Yes, sure. So, Mihaly Csikszentmihalyi—one of his definitions, which is a little bit broad and vague, is that 'flow' is an optimal state of consciousness in which you feel your best and perform your best, both mentally and physically. It's a very simple definition. A definition that goes a little bit deeper, that's more descriptive, describes what it feels like to be in a flow state. When you're in a flow state, you have a very, very large sense of absorption in the task at hand, so you become one with whatever it is that you're doing. Action and awareness merge.

Rian Doris 13:46

An example would be if you're surfing and you feel blended into the wave onto the surfboard. If you're writing and you feel [like you're] one with your computer screen. Immersion and absorption are big characteristics of flow. Time dilation is another big characteristic of flow, where time speeds up or slows down depending on the type of flow and the type of activity that you're getting into flow within. The sense of self quiets down, and this may be one of the things we can touch on around health.

Rian Doris 14:22

When you're in flow, that inner monologue, your inner voice, tends to just down-regulate and go offline, which is one of the reasons the performance and creativity in particular increases so much in flow because the inner critic that is doing the self-editing constantly is switched off for the most part when in a flow state.

Dr. Jill 14:43

As a writer, that's one of the things I've noticed is that when I get in that good state, and I even encourage people who are starting to write or whatever, often what I would do is either dictate some of the writing or get in there and say, 'green light.' I'm sure you've heard that term, but you really need to turn off that editor in some way, shape, or form because the things that are really brilliant usually come from the esoteric. You might throw out 10 really crazy ideas, and one of them is good and the rest are garbage. But you have to get to that state of not self-editing.

Dr. Jill 15:12

In my mind, it's also in two very different forms and probably more than this as we talk about health. But one is performance, like physical activity [like] surfing, skiing, or any sort of dangerous or extreme activity, or really anything in between. But then it can also be this whole creative side where you're maybe just sitting in front of a computer writing, creating music, or painting. Are there any other areas that you think of as places where we typically encounter flow?

Rian Doris 15:38

Yes, those are some great examples. The big buckets that I like to think through are cognitive, first of all. That might be getting it to flow while debating or while doing sudoku as a puzzle, doing math, or solving problems within a business or in entrepreneurship. Then, social, relational, and group contexts are very, very conducive to

flow as well; those are another big category of flow. That may be getting lost in a conversation, and maybe a form of group flow at scale, which we refer to as *communitas*, is like being in flow in a huge sports stadium when your favorite team is winning and the entire 80,000 people within that stadium are in this collective *communitas* group flow state. That can happen in a number of different ways.

Rian Doris 16:28

You also get that within. Good teams tend to get into flow together. Then, you've got physical forms of flow, which are fairly intuitive and obvious to people. Again, surfing is an example; runners' high would be an example of that. Then, you've got creative flow, like you mentioned; playing musical instruments, painting, singing, writing, [and writing] poetry. Those are all some examples of flow—cognitive, social, relational, or a group, and then physical and creative.

Dr. Jill 16:58

If you're going to jazz improv or any of those classic places where you just see this like, "Wow, I don't know what's happening, but those guys are in!" And they're probably [in] group [flow] and musical [flow], right? It's like this combo.

Rian Doris 17:08

Yes. A good synonym for flow within the jazz world is 'being in the pocket.' They call it 'being in the pocket,' and that's the same thing—being in flow. Other synonyms are: 'Runners' high,' being 'in the zone.' And getting in 'state' is another way people will talk about it. So yes, there are a lot of synonyms for 'flow' that are all referring to the same thing.

Dr. Jill 17:30

It's so fun because I have like a million directions I want to go. One thing I want to talk about before we go into how

this could relate to health is neurotransmitters. I love the biology and the physiology of this, and this is a very researched [topic]. We know the optimal levels of a lot of neurotransmitters. Do you want to talk briefly about those different ones and how they all come together? Because I think if we say, "How does this actually happen in the human body?"—this neurotransmitter concept is a piece of the puzzle.

Rian Doris 17:57

Yes. The neurotransmitters that we believe show up in flow, and the evidence is still a little bit inconclusive, are serotonin, norepinephrine, anandamide, endorphins, and dopamine. Dopamine, particularly, plays a role at the beginning of flow in honing attention and kind of tuning the signal-to-noise ratio. There are 22 different triggers or preconditions for flow that have been identified in the literature by Mihaly Csikszentmihalyi since the 1960s. Each of those triggers that drive you into a flow state—I can talk about some examples of those—tends to, in some way, shape, or form, impact dopamine, which impacts attention and focus, and that results in flow beginning—

Dr. Jill 18:41

And there's addictive potential there too, which, in this way, I think is very healthy, but it's something [where] when you go into flow—I've been there, you've been there—you want to go back. So I think that there's this piece that's actually self-fulfilling with flow, correct?

Rian Doris 19:02

A hundred percent, yes. There are a few things to mention there. One is that flow is the value-neutral state, and one good way to think about it is just as an accelerant. It will accelerate good behavior, but it will also accelerate destructive behavior. They've done research on flow within addicted populations—people who are addicted to video games or gambling or [who have] sex addiction—and the groups that experience more flow within those activities have much more severe addiction

and more severe downstream negative consequences from those addictions. So flow is good and bad.

Rian Doris 19:41

You can also get into flow while vandalizing cars or committing crimes as well. In fact, there was an interesting paper that was claiming that the highest flow activity—based on certain data—was actually [from] doing graffiti on the streets. There are a number of different reasons for that. One [reason] is that risk is a trigger for flow. Risk is one of those 22 triggers, and risk is obviously very high when you're doing graffiti on a building you're not supposed to be doing it on. So yes, flow is definitely value-neutral. It can accelerate addiction, but it can also accelerate all the good things that you want in your life and that you want to get better at, whether that's playing with your children and being present, working, or engaging in a sport or an activity that you're trying to attain mastery in.

Dr. Jill 20:31

I'm really glad you brought that point up because that's never been something on my radar. I totally get it, and I agree with what you're saying, but I've never thought about it as being value neutral and being careful because, just like any addiction, it could be someplace where you go, or you exclude your family, or you neglect something because you're so wrapped up in flow. Even that [flow through] a good activity, if you're completely ignoring family, friends, or obligations, it could be a negative thing as well. [It's] interesting.

Dr. Jill 20:58

Now when you mention the neurotransmitters and things, especially endorphins, we know that those will suppress pain. We actually use something in the medical community called low-dose naltrexone to naturally inhibit our own endorphins so that our body gets tricked into producing more. It's a great thing because we use it for autoimmunity, and we use it for inflammation and

cytokines. So we know that this endorphin production in our body actually helps with [not only] our physical health—and this might be one gateway—but also with pain. Have you talked or read much about the research [on] flow and pain? Do we know any connection right now in the research with actual states of health?

Rian Doris 21:38

We had a client three or four years ago. He was a really, really successful and pretty well-known Australian entrepreneur. When he was in his late 20s, he developed really severe dislodged discs in his lower back that were pushing on a nerve in his lower back and causing absolutely excruciating, excruciating pain to the point that it was unbearable. He tried all of the various medical interventions and painkillers. The only thing that worked for him was the absorption and, thus, the pain relief that came with the absorption from being in a flow state. In order to essentially survive and mitigate the pain that he was experiencing, he would get into these very, very deep flow states while working. He did that for a decade as his primary tool of pain management and ended up building a \$100 million business because he was basically in flow, avoiding the physical pain in his back all day, every day, for 10 years. He managed to eventually get it sorted out as technology advanced and he was able to get more sophisticated surgery. But the absorption that occurs in flow can significantly alleviate pain.

Rian Doris 22:52

What's interesting as well is that there are different schools of thought around pain alleviation and whether mindfulness or mindlessness is better for pain alleviation. There's a whole school of thought around using mindfulness to become in touch with the sensation of the pain, to distance one's experience from it, and to view it as just a part of the sensory stream. What's happening in flow is actually the opposite: It's mindlessness; there's less awareness, fundamentally, of the pain. So I find that spectrum from mindfulness to mindlessness interesting

with respect to pain because you see that as well in extreme athletes. Some people use mental tools to increase [their] mindlessness so they feel the pain less; some use mindfulness to feel the pain differently, in a more distant way, but to feel it more. So yes, flow definitely has significant pain management applications.

Dr. Jill 23:54

It's amazing. I'm just thinking as you're talking; I don't know if this is the right language, and I would say you're the expert with your parents and your experience, so please correct me, but I've heard of mindfulness or meditation versus contemplation, and I think of it maybe as similar ideas of how we view things. But it's interesting because I think some of us who are creative or curious or are really active, cognitive, or analytical—for me, it's actually hard to be blank and kind of observe. But if I get into more of a lucid dreaming state, which is kind of the opposite, I can still get some of the same benefits as the person who's meditating in this much more super active state.

Dr. Jill 24:31

Any comments or corrections on how I'm even saying that?—because I feel like those are, like you said, these two sides of things. I guess I say that because for years I knew meditation was important and helpful, [but] I couldn't do it right. So I would always feel that "I can't do this." But what happened was when I got to this other side, which is almost like lucid dreaming, where I'm envisioning things that would happen and manifesting—that's where I do my best, but it's almost the opposite of meditation.

Rian Doris 24:57

Hmm. There are a few interesting things on that. I did my Master's dissertation on the relationship between flow and mindfulness, and one of the big pieces of literature I came across was on the adverse effects of mindfulness

and meditation. It's a counter-intuitive thing because it seems like such a non-invasive intervention—you're just sitting with yourself; how can anything go wrong? But there's actually quite compelling literature, especially with young males, that [shows that] mindfulness can actually result in adverse effects [such as] increased anxiety, increased rumination, increased self-doubt, and things like that.

Rian Doris 25:37

The other thing that we often recommend to clients and that we say a lot is that mindfulness and meditation are simple but not easy. It's actually a very sophisticated practice, and it's challenging to become good enough at it and disciplined enough with it that it bears significant fruit. Often, an activity that increases mindfulness but that is not mindfulness—because you can have increased dispositional mindfulness, meaning overall mindfulness in your day-to-day life, through means other than state mindfulness, meaning getting into a mindful state while meditating—other things that increase dispositional mindfulness can be better. Examples of those are breath work, or what you're emphasizing, a lucid dreaming type of meditation or journaling.

Dr. Jill 26:25

Yes, I can create movies in my head. If there's something I want to happen, I can actually create a very realistic, complete scenario. It's like a dream, but I'm awake, and I'm actually controlling the outcome. I find that it takes me to such a really amazing state. It feels like what I assume would be similar to the observing of thoughts and the detachment. And again, I'm curious [about it]. I think what I've seen in patients and a little bit myself is if we have trauma and we are go! go! go! go! go! go! and thinking all the time, and we're using our analytical mind or our physical body to move because when we're still, those pieces start to percolate or bubble up. I think those types of people, and I'm pointing at myself, have more

trouble with this stillness, right?—because they either have to deal with that anxiety, that fear, or that sadness that comes up that they've just been running from. So there's a happy medium. I think you need both. But any comments on that? Do you think there might be a situation with unresolved trauma and a lack of ability to be still with yourself?

Rian Doris 27:24

Definitely, yes. We had Laird Hamilton on our podcast; he's the big-wave surfer. He surfs some of the biggest waves on earth, and he's an incredible guy. And he was talking about how, when he wakes up in the morning, his first goal is to exhaust the system. He does that by swimming dozens of lengths of the pool, doing a 90-minute workout, going surfing, doing breath work, [and taking] an ice bath. And he's literally soothing his system and increasing the degree to which his system is able to relax and slow down.

Rian Doris 28:00

For someone like that who is very type A and hyperactive—I don't know about Laird specifically, but a lot of people in this bucket have challenges with ADHD—and when that is your constitution, an intervention like mindfulness may not hit hard enough to really settle your system and get the snow globe to start to settle down. So things like breath work, ice therapy, heat therapy, exercise, and more active forms of meditation like the one you're mentioning, Jill, can be much more effective for people who really have a high degree of cognitive activity that they have to reign in.

Dr. Jill 28:40

I love that we're even talking about the ranges because I think that was my problem years ago. I heard of mindfulness as one form, and because I didn't fit [that description], I felt like I was failing or doing it wrong. So I

always love to talk about this because there have got to be other people like me who have tried that and are like: "Oh, that doesn't quite work for me, but this other thing that's close does." I want to make it more acceptable to people and patients that you can choose what works for you and it doesn't have to be "one size fits all."

Dr. Jill 29:05

But it is good to stretch, right? Even for me, it's good to try things that maybe are not comfortable. You mentioned flow triggers. We haven't talked yet about that. There are 20-30 from the literature. There are probably more. Let's talk about a few of the big ones. And when you talk about flow triggers, let's first define: What does that mean?

Rian Doris 29:25

Yes, sure. So a flow trigger is some sort of precondition that, when present, increases your likelihood of dropping into a flow state. Flow triggers trigger flow in an immediate sense. What is also important to think about and what we also want to maximize is what is called 'flow proneness.' This is your overall susceptibility or predisposition to being able to access flow. You want that increased likelihood of being able to access flow on an overall global level, and then you want the more acute presence of flow triggers to kind of tip you right over the edge into flow. And we can dial up both of those in different ways.

Rian Doris 30:08

One of the big flow triggers that is talked about a lot is the challenge-skill balance. Some people refer to this as the zone of proximal development. There are a number of different, similar models for this. That flow trigger states that we access flow at the point where the challenge level of the task or activity slightly outstrips our current skill level. It puts us in a state of perfect arousal or

stimulation—not so much that we're propelled into a state of anxiety and not so little that we're underwhelmed by the activity we're doing and we're bored and it feels mundane.

Rian Doris 30:52

We want the thing that we're doing—whether it's giving a speech to a certain audience size or whether it's writing up a paper or whether it's solving a big complex problem—to be just a little bit harder than our skill level is suited for but not too much and not too little. And if that's the case, then we can access flow much more easily in that sweet spot.

Dr. Jill 31:18

So trying something new or different or challenging ourselves, whether it's physically or mentally, are all good things because we push that envelope just a little and just enough to, like you said, keep the attention. Because boredom is a terrible way to be in flow, right?—you can't really get there. But then if it's super, super difficult, you get overwhelmed and you're like, "I can't do this." So I love that.

Rian Doris 31:36

Yes, exactly. You want to push. The data that Steven has cited says that you want the challenge level to be about 4% beyond your existing skill level. So that can be a helpful way to think about it. If the thing you're doing is two times harder than the skill level that you're capable [of], you're going to be pushed up into anxiety and out of flow, but if it's half as challenging as you're capable of, you're going to drop down into boredom.

Rian Doris 32:06

And there are different ways that you can modulate how challenging something is. You can compress the amount of time that you will give yourself for that thing and make

it more difficult that way. Or you can expand out the amount of time that you have for a certain thing, and you can access flow more easily [by] making a task easier like that, if it's harder than your skill level is suited for in the first place. There are a few ways you can tune the challenge-skill balance to arrive at flow.

Dr. Jill 32:34

Great tips. Purpose, meaning—some of those really core things—I know they have a lot to do with flow. Tell us how they fit in.

Rian Doris 32:42

Yes, that's a great question. One of the models we use a lot refers to the five drivers of intrinsic motivation. There are two forms of motivation that people are probably familiar with. [There's] extrinsic motivation, where you're engaging in an activity or a task to get some form of external outcome that is separate from the engagement within the task itself; and then there's intrinsic motivation, where you're doing the thing just for the sake of doing the thing.

Rian Doris 33:10

The fuel source of intrinsic motivation is generally more powerful, longer lasting, more conducive to flow, and more enriching over the long term, and it builds and drives fulfillment, whereas extrinsic motivation tends to be diminished when we get the extrinsic thing. If we're motivated by money, once we get the money, the motivation goes away. If we're motivated by status, once we get the status, the motivation goes away. Whereas if you're motivated by engaging with the thing itself, as long as you're still engaged with the thing itself, you're still motivated. The five drivers of intrinsic motivation are purpose, passion, curiosity, autonomy, and mastery. Those are a really helpful lens to think through when you're trying to maximize intrinsic motivation.

Rian Doris 33:59

Purpose, simply defined, is about others. Passion, simply defined, is about you. You may be wildly passionate about playing the piano, but if it's not linked to some sort of purpose that impacts others, you will have less overall intrinsic motivation. But if, for example, you're wildly passionate about playing the piano and you play it for huge audiences in a way that is incredibly moving and meaningful for them, you then add that purpose component in, and as a result of having both of those boxes checked, intrinsic motivation tends to go up. And the more intrinsic motivation tends to go up, the more the flow tends to occur. The more the flow tends to occur, the more intrinsic motivation tends to occur. So it becomes this compounding feedback loop that builds on itself because flow is autotelic. The more we get into flow within an activity, the more we want to re-engage with that activity for the sake of the flow state itself. So it sort of builds on itself and compounds, and that's how you create really, really high levels of drive within people.

Dr. Jill 35:03

This makes so much sense on so many levels. I recently read Jeffrey Rediger's book, *Cured*. He's a Harvard grad, and a psychiatrist, who studied how people have spontaneous healing. He found various diets, various lifestyles, various interventions, and different people on multiple levels—[some] eat meat, [others do] not eat meat or this or that, or [others] do not even have a good diet—and they would have this healing. He tried to find some of the commonalities. One thing he found almost universally was purpose, meaning, and passion—this core piece—in the beginning.

Dr. Jill 35:36

That's why I wonder if there's [a connection] because I really feel like if we could really get ourselves into that mental or physical flow state, it's good. It's not only good for productivity and creative ideas and bringing

enrichment to the world on that good side of the spectrum, but I really believe it's good for our human body. Our physical body, I think, is optimized in flow states. Have you done any research on the physical aspects? Does physical health improve with flow?

Rian Doris 36:03

Yes. We've looked at it. We've looked at that a little bit in a number of different ways. There's a researcher at Claremont Graduate University called John Aussie that we were working with a little bit who was looking at flow and its impact on PTSD in surfers. There are a few pieces to how flow may impact physical health. One obvious one is that if you're able to access flow when doing an activity that is conducive to positive health outcomes, like running or some form of exercise or even some form of social connection, you're going to end up engaging in that activity more frequently. As a result of that, you're going to access flow more frequently and the benefits of whatever the activity is from a health standpoint, whether it's a form of exercise or connection.

Rian Doris 36:54

There are some more speculative thoughts around direct mechanisms that flow may have on physical health. Steven had chronic Lyme disease for years in his early 30s. He was completely bed-bound; he was suicidal for three years. A friend came and dragged him out of his bed and forced him to get on a wave, which is actually just down the road from where I am in Sunset Beach, just past Santa Monica here in LA. He had Lyme disease and could barely even walk, so the idea of surfing was just completely bananas for him at the time. But his friend persisted, and he ended up getting into a flow state on the wave and having this huge uptick in energy in the following days and a huge alleviation in the symptoms of Lyme.

Rian Doris 37:41

He went back again a week later once he'd recovered, had an even bigger uptick of energy with even less recovery time, and went back again and again. His Lyme disease eventually ended up subsiding. He thinks there may be something to do with the neurochemistry of flow and how that alters Lyme or cognitive function, and that somehow resulted in the alleviation of Lyme, which is really interesting. So yes, there are some interesting hypotheses around it.

Dr. Jill 38:23

That makes so much sense to me though because like I said earlier, we have this model and I loved it. We'll have another conversation about doing research; I'd love to be involved in that on this level. I mentioned low-dose naltrexone and the mechanism because you're actually inducing endorphin production, and that's one of the likely things that is present in all flow states. And we talked about that pain-modulating effect. But the thing that's not intuitive but that we see with that is that it actually modulates immunity through decreased cytokine production. So when someone has immune activation and often Lyme or mold or even long COVID—complex chronic things that we see—the infection can still be there, but it's really the infection's effect on the immune system and either upregulation or downregulation in this whole interplay between infection and immunity and immune system and inflammation. So if you could somehow modulate the immune system to get back up, keep that infection down or at bay, and downregulate the cytokines, [it could have a big impact].

Dr. Jill 39:23

So we need the immune system to go back up to its state to do what it's supposed to do and control these low-level infections. Then we need the immune system that's overactive for autoimmunity to downregulate and decrease cytokine production, which is the big thing with

COVID or long COVID side effects and all that. Again, it's a model that we've seen with all these diseases. It makes me wonder then if that endorphin, that neurotransmitter—again, we haven't studied all of it—I'd love to [be able to] see in the future to look at: Are these things actually changing our immune system?—because I bet you anything, that's what we'll see. We already have a lot of studies on stress in the immune system. To me, this is the antidote for stress. In a simplistic way, it's the antidote for the stress effect on our lives and our bodies. Who knows? But this is so fascinating.

Dr. Jill 40:09

The other thing I was thinking about earlier, when you talked about collective flow states and having conversations, [is that] I feel this is one of those things in the doctor-patient relationship or with any good friend or any good confidant. I feel like in the office I do experience flow when I'm with patients and I'm really present and I'm really there. What's neat is that when you mentioned purpose, curiosity, passion, and mastering autonomy, I can go click, click, click, click, because what I do in the office every day, I love. I feel like my purpose is to help heal and transform people's lives. I'm so passionate about it. I get really curious because I love to solve problems. It's the perfect state for me to be in flow.

Dr. Jill 40:45

If I'm really creating a safe presence for them to engage in that, what I think can happen, and I love your thoughts on this, is that as we get into collective flow or get into that deep, intense, intimate conversation where they feel safe and they're really opening up and I'm listening with all of my mind, body, and spirit, the answers that come are amazing to me. [I mention this] because I don't feel like I'm that smart all the time, but I get some really great insights, and it's always in that state where I actually think it might be collective flow. Any comments on that or thoughts on it?

Rian Doris 41:16

That's interesting! The answers that you—

Dr. Jill 41:20

Yes, as I'm listening. But it feels like I have to be in that really, really intense, timeless, effortless, and [have] complete absorption in this person in front of me, as if I can really be present with all of my heart, mind, and soul. Again, I can think here really well, but often the answers come—it feels almost like it's not just my mind; it's both the intuition and the mind together.

Rian Doris 41:43

[It seems like it's] coming from some sort of a muse, almost. That's one of the common experiences in flow: Decision-making starts to feel very fluid and intuitive. The reason for that, as you're mentioning, is that often the information seems to just surface. We don't have to consciously recall, wonder, think about things, or analyze—it literally flows. Again, the reason Mihaly Csikszentmihalyi called flow, 'flow,' was because that's what it feels like; it feels literally flowy. So that makes complete sense. And that comes with the downregulation of the inner monologue and the sense itself that we talked about earlier; on a shift from conscious information processing, where we're analyzing or thinking or wondering to unconscious information processing where our unconscious is performing a lot of those functions and serving up information that is perfect for the moment but that we didn't necessarily know we had access to or had on hand.

Rian Doris 42:48

So it creates this really flowy, fluid experience where we're just encountering the right information as we need it or [making] the right decisions as we need them. And people experience this in other contexts as well. For example, rally drivers or Formula One drivers when [they're] in flow. We've done some research with them

[where we've observed that] without any conscious effort, without any thinking, and without any deciding, they will experience the ability to make the perfect turn at the perfect time with the exact right angle. That's one of the big characteristics of flow, so that makes a lot of sense.

Rian Doris 43:22

Steven Pressfield talks about it in slightly more esoteric terms. He talks about it as the muse and [says] that you have to really build a skill of listening to try and get access to that other information stream, which is more—

Dr. Jill 43:37

I love that! I love that, first of all, you are so articulate at taking something I'm saying that's kind of messy and making it really, really neat and tidy. So thank you for that because it feels like you're getting me, even though I'm not always really clear. I know what I'm saying; I love that, and it makes so much sense.

Dr. Jill 43:52

I felt like one of my passions in teaching other physicians is... In medical school, it's crazy because we're so masculine, left-brained, and analytically driven. It's almost like 95%, you use your analytical brain. You use science, and I love science. I'm from a bioengineering background. But what I found is that there's, as I say, magic. It's like the 'muse' you said. There's a magic to trusting that intuition, and it is spot-on if you're in the right zone. And what happens is that you take all this experience—for me, it's about 20 years—and I think you really can't use intuition until you have some experience because your subconscious is pulling from those experiential patterns. It's like pattern recognition is happening, but I think that if you come out of medical school [with] no experience at all, you kind of have to rely on the analytical brain and see some patterns. Then, as you develop pattern recognition because of your experience, that's when—again, I love to talk to physicians

about really trusting that and then proving it with science—we can use both.

Dr. Jill 44:48

We don't want to neglect the science, because I love the science and the analytical piece. But to me, this is the perfect way to really get to the next level with medicine is starting to take both the right and left brain, both analytical and creative, both engineer and creative dancer, artist kind of person, and pulling these together. Because there's something magical that happens there, I personally feel that I get insights that I didn't know I had. And I was like, "I don't know where that came from." But it's often very right on. So I love that you've talked about that and brought that back full circle.

Rian Doris 45:20

Yes. It's cool to hear you experiencing that in the physician-patient relationship as well, because flow within service professions like that, or the reason you're mentioning, can be a huge amplifier of performance. If all doctors were in flow with their patients like you're saying, decision-making and information recall [would be] significantly elevated in those contexts. Think about how much better the interventions that patients would be given would be if that were the case, and if that were always the case for all doctor-patient relationships. So yes, it's really powerful. And we see the same things even in different service profession interactions, where the results that whoever's being served can get from whoever is serving them can go up significantly if the provider or physician can access flow.

Dr. Jill 46:16

Yes, so we've talked about individual extrinsic and intrinsic motivations and the players on the intrinsic [side]. I loved everything you outlined. Is it true—could my being in flow influence the patient? Could we actually externally influence each other with our flow states?

Rian Doris 46:31

That's a great question, yes. Is flow contagious? There's a researcher from the University of North Carolina called Keith Sawyer who wrote a book called Group Genius, and it's all about group flow. He outlines a number of the triggers for group flow, which are triggers that will actually unlock flow between two people or within a group. When those triggers are present, you end up getting into flow with the other person. And so, if you are in flow and you are giving rise to one of those triggers, then that other person who's interacting with you will also be made more susceptible to flow. An example of one of those triggers is familiarity. If you act in a way that demonstrates familiarity and vulnerability to someone else, you are predisposing yourself to flow, and you are also predisposing them to flow. So, you can assist others who are interacting with you in getting into flow more easily and more quickly through aligning yourself to those group flow triggers.

Rian Doris 47:34

If anyone wants to read about those group flow triggers, they can just look up "Keith Sawyer's 10 Group Flow Triggers", and they'll come up and you can see the results specifically.

Dr. Jill 47:42

Amazing! And all these books you've mentioned, we'll be sure to link back to all the resources you're mentioning, [so] if you're listening to this in your car somewhere, you'll be able to find that. Rian, you have been a wealth of knowledge. Like I said, I'm so impressed. First of all, your background—what a brilliant thing that took you to this place and then got you connected in all these ways. You are so articulate and so able to bring this to a level that, at least for me, is very understandable.

Dr. Jill 48:10

You really, really get this. It's amazing to me because of what you've been through that you're brilliant and you're able to bring this to such a level. So thank you for that, and thank you for continuing to have that drive to find answers, because it's clearly benefiting not only yourself but everybody that's listening and everybody you speak to. What would be the one thing that most helped you in your journey of healing? Was it flow? Was it something else? What would you say was the biggest [thing]—maybe one or two things—that really helped you transform into the person you are today?

Rian Doris 48:41

Well, working with you, Jill, has been very, very impactful. Of course, I have to mention that. Thank you for everything. I'll mention something very specific that you actually did recommend to me, and it's a physical intervention because I have had some challenging health issues with long COVID and otherwise. It is a peptide called BPC-157. I know that's a very specific thing to mention. There are lots of other things as well, but that's one thing that comes to mind that really has had a positive impact on my physical health and, as a result, my ability to get into flow in the last year, I would say. And it was you who recommended that.

Dr. Jill 49:21

Aw, thank you so much. I just have such respect for you as well, so that means a lot. Last final parting words—any tidbits? Or for someone new to flow who's like, "This sounds really cool, but I've never done it," what would you say? Where can they go? First of all, I want to give [listeners] information about where to find you. But before we do that, what next step could someone take if they're really excited about flow and want to learn more?

Rian Doris 49:44

Yes. One good step to take is Steven's book, *The Art of Impossible*. It's very practical, and it really outlines how to

access flow consistently. It's called The Art of Impossible. I think one mindset piece that I would suggest people take away is that while flow and accessing the state can feel like this elusive, sporadic thing that randomly occurs, it's possible to develop being able to access flow as a skill so that you can build the skill of driving yourself into this state and get into this state on demand over time. I just want people aware of that.

Dr. Jill 50:23

In writing the book, that's one thing I had to discover because I could do flow and all kinds of other things, [like] rock climbing and riding my motorcycle, but with that, I had to figure out what recipe would get me into that, and I found it. It's 90% effective. But that's for each person listening out there—you kind of find your recipe.

Rian Doris 50:40

Yes, 'recipe' is a nice way to put it. Exactly.

Dr. Jill 50:43

Where can people find you? Where are your website [and] resources? Where can we find you?

Rian Doris 50:48

Yes, flowresearchcollective.com is the best place to go. We have all sorts of free training and free things on there that people can check out and that are very practical, and that will [help] ground some of what we've talked about today into the next steps for people as well. So flowresearchcollective.com is the best spot to go.

Dr. Jill 51:03

Fantastic! We'll also send them to your podcast, which I love, and look forward to sending all these links too, if you're listening out there. Rian, thank you so much for your time. I know it's valuable, and we have all learned

[from] and been enriched by your presence, and I'm really grateful for that today!

Rian Doris 51:18

Thanks so much, Jill. Thank you for everything as well. It's a real pleasure. I really appreciate it! Take care.