

Living Donation Week Podcast Dr Humar Joanne Brendan

Candice Coghlan: [00:00:00] Welcome to Living Transplant. The podcast that takes you behind the scenes of the transplant program at Toronto General Hospital and brings you open and honest conversations about the transplant experience.

My name is Candice and I'm the Education and Outreach Coordinator for the Center For Living Organ Donation. I'm also a transplant recipient. This is where I developed my passion to support others in their journey to navigate the world of transplant.

Full disclosure, I'm not a physician and I'm not here to give you medical advice. Think of me as your guide through the world of transplant. Educate, inspire, peak your curiosity and fuel your passion.

Living Transplant will show you the world of transplant you've seen it before.

Welcome back to the Living Transplant Podcast. Today, I am joined by a couple who really needs no introduction, Joanne [00:01:00] Kearney and Brendan Cahill, Joanne and Brendan went on a remarkable journey together where Brendan donated his kidney to a stranger and Joanne received one from a stranger through the kidney paired donation program. Following their successful surgeries, Joanne and Brendan together with their families co-founded the Centre for Living Organ Donation. Later, we will be joined by Dr. Humar, the Director of the Ajmera Transplant Centre and the University Health Network at one of the largest transplant programs in North America. And he is also the Director of the University of Toronto Transplant Institute.

So Joanne and Brendan. Welcome. And thank you so much for joining me as guest hosts today.

Joanne Kearney: Thanks so much for having us Candice. I love the Living Transplant podcast. I've been a, listener from day one. So we're really honored to be honest today with you and we feel people know our story, so hopefully they're not sick of us yet.

Candice Coghlan: I don't think so. And I'm excited to [00:02:00] have you guys both here to tell your, story and in your way. let's get started. I guess we'll

start all the way at the beginning. Joanne, if you could tell us just a little bit about your kidney diagnosis.

Joanne Kearney: Sure. So I was diagnosed with kidney disease at the age of four or five.

I they found it because I had a series of urinary tract infections as a little kid and. GP at the time said that's unusual and referred me to Sick Kids. And year later I was having my, my left kidney removed. And so the early days of the disease had started to scar my right kidney and completely scarred my left.

So I had a left nephrectomy at five, and then I, lived. On one powerful or one tiny little blood pressure medication from basically from that time through to my transplant a bit on and off. And it let me leave like a very [00:03:00] normal, life. I knew I had kidney disease. I went to Sick Kids every six months or every year later on.

And then later I transferred over to UHN and as a kid, I thought that going to the hospital, having had a surgery, having had to spend time made me lucky in some ways maybe that's weird, but I felt stronger for it. I felt like a bit of I'd run the halls of Sick Kids and tell stories of my time there and see the surgeons walking by.

And I had a really lovely doctor, Dr. Gary who saw me until I was 19 and I didn't wanna leave Sick Kids. Yeah. And I remember him telling me at some point in the time, cause my roommate in the hospital. She had a transplant. So I asked a lot of questions as a five year old is what does that mean?

Am I having one? And I wasn't. And I remember him telling me that maybe you'll have one, but you'll be 40, like a really, long time from now. And it felt so long away that it wasn't part of my, living with kidney disease. And then when I transferred over to [00:04:00] I I went from being a 19 year old whose parents came to my appointments with me as to the kids.

And I finally thought at UHN, I gotta do this alone. I gotta walk these big halls. And I found a very lovely family through Dr. Jassal and the kidney clinics at UHN. And I continued to be seen there once a year, very little impact on my life and was aware with it, managed my diet a little bit, took that, great blood pressure medication.

And and off I went.

Candice Coghlan: And what was that? You spoke a little bit about it, but transferring from that Sick Kids team my friends who, grew up in Sick Kids, it's such a, family oriented place and it's, just such a, community to then going into an adult clinic. And now you are part of a very large group of people who you may have different nurses and different people that you see, who may not know as much about you, that those, that [00:05:00] staff at Sick Kids knew. What, was that like transferring to be the big adult at, UHN?

Joanne Kearney: I remember, I don't remember being daunting. I remember being a decision like we're working with Sick Kids. They said at the time I maybe I'm aging myself. I still did grade 13. And so I was over 18 and still going Sick Kids.

They said, why don't we transition you when you are off to university? So I had moved to Montreal. I was going to McGill and I. Remember coming home and scheduling an appointment for when I was home from school and going the first time on my own and going to say, okay this is a new transition, but it was all part of me that, life transition you're going through when I was going off to university.

And so I do remember walking the halls and be like, oh, I don't know where I'm going here. And it's like a very big hospital. But then as soon as I had my first appointment with Dr. Jassal she knew Dr. Guchigere very well and and true everyone who's Irish knows someone who's Irish. Both of them happened to be of Irish backgrounds themselves.

So there was this very familial feel to it. [00:06:00] And I just clicked really well with Dr. Jassal. And she was a wonderful nephrologist who said, I'm here to, keep your kidneys functioning and living a lifestyle you're not impacted by it. And we were together very successful for over a decade.

So UHN was is big, but the kidney world was Was small. It felt to me. So I, felt that it, it was time to leave Sick Kids.

Candice Coghlan: Wow. And I guess maybe the title of this episode will end up being like the Irish group, because Coghlan is also we have Irish descent as well.

Joanne Kearney: So yeah, there we go. We're everywhere. All of the Irish together oh when we were, in the hospital, my, my parents, my family would come visit all Irish Brendan's family could come visit all Irish, the attending or the, resident who was looking after me.

She was Irish. There was you could, and then there's so many, UHN is such a cosmopolitan hospital that there was a lot of different Irish [00:07:00] accents that you can't escape us. Yeah. exactly.

Candice Coghlan: Yeah. That's amazing. So going back to talking about your transition to UHN. So you're 19. At what point did you meet the wonderful man who's with us today?

Joanne Kearney: oh that's a complicated question. when did we meet Brendan?

Brendan Cahill: 2006 at a party? I remember.

Joanne Kearney: Yeah back to the, Irish thing our families knew each other our brothers played football together, Brendan and my sister were a law firm together. Wow. So I think I was the last of your family to meet You I didn't all, yeah, pretty much.

Candice Coghlan: And when did you start officially? Dating, becoming a pair.

Brendan Cahill: September, 2008

September, 2008. Yeah

Joanne Kearney: We were good friends first and then started dating in 2008 and now we've been married 10 [00:08:00] years. We got married in 2012.

Candice Coghlan: Amazing congrats. I'm guessing there's some kind of celebration that may be happening for your, big 10.

Brendan Cahill: Hopefully. Yeah. It's it's, basically a year celebration. We got lots, to celebrate this year, so we're working on a few ideas.

Candice Coghlan: That's fantastic. So when you first met Joanne, did, was she very upfront about her kidney journey? Did you learn about that quickly or was that kind of an evolving learning process for you?

Brendan Cahill: Yeah I learned it quite quickly and. Yeah. It, wasn't very long before it was like, yeah, Jo's gonna have to have a, transplant at some point in the future. Don't know when it's probably not gonna be 20 years or 30 years. It's probably gonna be 10. And long before we were engaged or anything like that, I was I was just gonna be the one who was gonna do it.

And that was the end of that. And that, that's what carried through the whole way. Definitely some bumps [00:09:00] along the way. And I wasn't a direct donor to Jo. We went through the kidney paired exchange, which I'm sure we'll talk about, but throughout at all, I was the one who's gonna give the transplant.

Cause you just it's just a special opportunity to have that. If it comes your way you, have to jump to it. And it's, just a blessing to be able to make that gift.

Candice Coghlan: Wow. I know my, husband and I, we met in June of 2007. And then by July of 2008, I was a crash start onto hemodialysis with no prior knowledge of, knowing about my kidney disease.

And we were, I was 24 at the time. So you know, that whole process of we'd only dated a year and this was a crash for both of us, that it was completely new for, young people to be going through, the, surgeries and what was dialysis and body image as well. Like at one point I had two catheters in my [00:10:00] body and I've been dating my now husband for just over a year.

So all of those things are, coming forward and you. At that age, you're super self-conscious about everything anyways as a 20 something year old. So then having this guy who was at first, just another baseball player on, a rec league team that I knew become my boyfriend.

And then eventually down the line we got married, but he immediately stepped up as, a, really big caregiver for me. And it was my mom who ended up being my donor. But throughout that process when you go through something like that with somebody you're so quickly bonded to them.

And it's remarkable to see couples who are able to go through. Really difficult times and, still come out and be able to laugh at each other and mock each other [00:11:00] and, enjoy each other together. It's awesome to have the two of you here talking about this.

Joanne Kearney: I'll jump in there.

Your husband sounds like a very wonderful and remarkable person to be that caregiver because having experience with Brendan who's with a remarkable doctor Clooney is that we used to joke. also dating ourselves back. So

they've got the beard board now and even before we probably realized that it was related to my kidney decline, I would get sick.

He would be it's the first one to be at my bedside, be so empathetic, almost too empathetic. He'd feel the pain too, and be competing with my mom about who was gonna take care of me. So to have that support I know we're truly lucky to find that in our life partners and.

Probably take it for granted that you automatically have this person who is thinking as much, if not more about how you're feeling than you are. And another little tidbit to, but you're saying about body [00:12:00] image, but also to link to our great actions, leave a mark campaign. That's gonna be launching during living donation week.

I have a second belly button because of my left nephrectomy as a five year old. They, I don't know why I never asked. I'm sure I asked the time, but there is a, there's a incision scar below my original belly button. So my party piece of in those get to know each other.

What so many people didn't know about you? have two belly buttons and I. Adjust my shirt, we have to show it. So of course, Brenda new, cuz that would be my, the ice breaker. What makes you unique? And like why would two belly buttons.

Candice Coghlan: That is hilarious. There's the new title of our episode two belly buttons, right?

Yeah, But yeah, I can't echo enough what you said. We are incredibly lucky to have the partners that we do who are there with us. And my mom was the same. I, was in university, so I moved back home while I was doing dialysis. And often my husband Mike would stay over and sometimes in the middle of [00:13:00] the night with peritoneal dialysis, there would be like pains from if, the machine pulled too much fluid or it'd have leg cramps and like all of those things that would happen.

So I'd wake up in the middle of the night and. Either, my mom would rush in and Mike would be like, it's okay. I got her and then sometimes she'd be , oh, okay. But you could tell that she was like, this is I'm mom. What's going on here. But yeah, we're very lucky, to have the partners that we do.

You talked a little bit about that journey and knowing that eventually you would need a transplant. At what point were you told that transplant was coming sooner than you thought and you were going to have to start to prepare for this.

Joanne Kearney: So a little after we got married, I guess in and around when I turned 30, my, my kidney function that had been very slowly stable or slightly deteriorating, but not really started to accelerate its deterioration where I moved from the. The nephrology [00:14:00] clinic to the multi kidney clinics or the MC KC clinics.

Where you see the dietician and the pharmacist and, have to more actively manage your, illness. And so that happened, let's say in and around when I was 30 and the few years after that, but it was a slow process because it really just was my, my creatinine was, creeping up and I guess I would call that there was just an additional scarring on my kidney.

I did everything from managing your, diet. That potassium diet that all of us have lived on, which is actually horrific because you're not allowed to eat anything that we've been told is healthy. Any amount. White rice and white bread is your friend yes. And lived with that and learned how to manage that phase where I was, my function was deteriorating more than it had ever been. But was still slow enough that it did give us time to have conversations, but I remember my first day at that clinic and the team was fantastic.[00:15:00]

But one of the things they do is they give you a tour of a dialysis unit. And of course I knew about dialysis, but because I had lived with it being so at bay, that was never something I had to, I of got my head around and I remember thinking this is wonderful, that's a treatment cuz so many other diseases don't have that.

But I'm also lucky because I am in a slow decline. It's not a crash course like, you've experienced, which is heartbreaking for me to hear, because I had the opposite experience of knowing that I had that option, but hoping that I could steer it towards, if it was gonna get to of the failure stage, steer it towards a preemptive transplant.

So from my first day in the MC KC clinics, that was my goal. And that was something that was my biggest motivation was how do I, keep what I have and manage what I have? And at the time I thought, how do I keep as what I have for as long as possible. And then at the, when the time would come and you hit that, okay, now you're ready to be worked [00:16:00] up.

Hopefully have a very efficient process to preemptively get a transplant. And what I thought was this is pretty common. This is actually what a lot of people would experience. What I then quickly realized was I'm in I'm unique by being able to go the preemptive path and that I learned that it's not like that for many, people who need a kidney transplant.

So that was a a humbling experience that reminded me even more so to stay the course and make sure that I remain healthy enough to continue to do that. Which in the end it did work out that I was able to preemptively get a kidney, but there was some bumps on the way there absolutely was some bumps along the way.

Candice Coghlan: And so people who don't know about preemptive transplants, can you explain to them what, that would be?

Joanne Kearney: So as your kidney reaches obviously work with your nephrologist, but as your kidney reaches a certain level for me, once I around the 20% function level was all right, let's look at what your options [00:17:00] are.

You're already in the multidisciplinary clinic, you already have lots of people managing you. But say, okay, learn about your dialysis options, but also learn about transplant. And what does that look like and who in your life might be? Someone who would consider giving it, donating a kidney.

You learn very quickly around the waitlist, around the deceased organ wait list. And that for us, we were a bit surprised that was the focus that there's a an eight year waiting list. For example, with my blood type, that's what they thought I would be. And therefore there's dialysis cuz that's a really long time or there's living transplant.

If you have someone who might wanna do it. And so obviously we went down that path and I again has been very lucky that Brendan was true to my former Sick Kids. I brought people to my adult kidney appointment. So either my, Brendan came almost all the time, which is wonderful sometimes towards the end.

My dad even came to start to better understand the process of transplant. So I had people with me [00:18:00] hearing from the very beginning that living donation was an option and that allowed me to never have to make the ask.

Candice Coghlan: And that's such an incredible thing for people to hear, because I think often the first thing that people think when they hear living donation is how do I ask?

I can't ask somebody to do something like that. So knowing that as a potential recipient, that there are these people who are coming with you to hear about the benefits and how it's going to save your life, that is a great way for them to

know all of that. And then also, was there anything else that you did outside of having Brendan and, your dad at the appointments?

Did you share what you were going through with your close family or your friends.

Joanne Kearney: Yeah. I talked about it quite openly. I think having someone like your loved one and maybe it's a different person, if you have like, in my situation I had my parents, I had Brendan and I had my siblings to also hear from the [00:19:00] appointments, what you're living with, because we often hear that kidney disease is a bit of a hidden disease.

You now dialysis is different, cuz you're obviously going to a Centre or you're, having it at home overnight. But in my case, you couldn't see that I was living in, in, in end stage kidney disease and right. I was very healthy. The whole relatively, I had a bad kidney, but really healthy overall.

So yeah, you wouldn't necessarily know. or even, I wouldn't sometimes know my symptoms were correlated. It would take Brendan sort of living with me, being at the appointments to say, that's related like this, isn't some random foot pain you have it's go. Or so I think having people involved in your managing your, health is really helpful because it's not a very obvious illness.

And then from there the, question of transplant becomes very very seamless. But I, so I, in terms of, in addition to Brendan, I also talked about it with my family and I, talked about it with some close [00:20:00] friends. So people were very much aware and I had others offer to start the process because Brendan was, so amazingly adamant that it was going to be him.

The team also saw that they, saw him be there with me. They saw my family also be there with me. So they said, one of the criteria for being a living donor is your enthusiasm. And so Brendan's enthusiasm. He wore that on his sleeve or whatever the expression is. yeah. You wear your heart and your sleeve, Brendan wore his donation.

His wants to donate on the sleeve. So that made the process that much easier for me to navigate because he, really navigated it for me.

Brendan Cahill: Yeah, exactly. It was fairly clear sailing really until until 2016, and I was a match and everything was gonna be perfect.

And and then we were going through the HLA testing, which was the genetic testing to [00:21:00] determine match ability and just something changed over time. And, that sometimes this happens. And and then all of a sudden I wasn't a match and Jo would, reject five of it out of every six kidneys.

So that was a, huge speed bump for us. And that's when we actually learned about the kidney paired well, actually first we were directed towards, okay, now you're on the, deceased donor list. It's gonna be about eight years. We said, Nope, there's gotta be other options out there.

And, we work quickly, but not maybe immediately directed to the kidney paired exchange. And that, was the pretty like an interesting. Moment. Because you're so geared up to donate to your loved one that all of a sudden you're presented with you'll donate to anonymously to somebody you don't know could be on the other side of the country and your loved one will get in a kidney from someone else.

[00:22:00] And, that seems fine, but there is like a weird moment where you're like, I'm, donating to my loved one. But I think one of the things is once we got into the kidney paired exchange really learning about it and having basically board calls Jo's dad and I really putting the, doctors through their paces in terms of the statistics and probabilities and everything.

We realized pretty quickly on that this is actually as good an option maybe better than than me donating to Jo directly. And it, was really simply if you want something to read it's better to go into a library then hopefully find a book along the way. And it was pretty amazing cuz you realize with 160 pairs across the country, that the chances of getting a perfect match or a near perfect match for Jo were just dramatically higher. So, John and I Jo's dad worked, the statistics, worked the [00:23:00] spreadsheets and so this is actually a really cool option.

And so we went down that path from there and really fascinating process that that ended up getting Jo a perfect kidney at the end of the day.

Joanne Kearney: With all that math. We had the most amazing teacher through it, Dr. Kathryn Tinckam we met her at the perfect moment at this phase where we, it had all been smooth sailing and, kudos to the team who got us through the smooth sailing. And then we had this major hiccup and it was that moment of now there's an eight year wait list. I have to start to I'm, assuming I have to start dialysis, no idea.

And like no point in my, mom and my dad and my sisters and my, brother and my friends going forward, because I was just gonna be so hard to match that gate, that, that didn't make any sense to us. We were for the first time, quite stressed about the situation, because everything else had been smooth sailing because of the, great care team we had and, my health, but we met Dr.

Tinckam she in [00:24:00] one probably literally she did it in one, five minute conversation. Helped put all of that, those questions at ease and explained the, pair exchange. And we of looked to her and said, When can we start doing this? A and why didn't we learn about this sooner? It sounds like the most amazing thing.

And she really took the time to explain the math to us and to do the board presentations as, Brendan called it. And talk us through how really it's like market theory and or Brendan's library analogy. And now when I'm, when people are facing sort of similar hurdles and I hear from them right or wrong, like you have to talk to Dr.

Tinckam she, and now that now there's a team as well, of course at, Ajmera Transplant Centre who are all equally capable of, talking through it. But. It really showed us. That was our first glimpse into how innovative the UHN transplant team is. If you're a not interesting case, you maybe never see it because things go so smoothly.

But if you're slightly interesting, which you never [00:25:00] wanna be in, in healthcare, but if you are, yes, we were very lucky to be at UHN who sort of helms this paired exchange across the country and was part of bringing it to Canada and innovating it with Canadian Blood Services.. So we are forever grateful that this program exists and that we learned about it.

At the right time, almost, we felt at the time almost too late, but it ended up being a perfect time. And, that's why we're committed to talking about it as much as we can because more people need to know about it. For sure.

Candice Coghlan: And so through that process again, for people who may not know about the paired exchange you Brendan donated your kidney to a stranger somewhere across Canada.

Yeah. And then in turn a stranger. Whether it was a direct match or how many people were in the chain then donated their kidney to Joanne. And did you guys ever find out how many were in your chain?

Brendan Cahill: No not, specifically, but yeah. And just like a little bit more [00:26:00] detail. So there's three matches a year June, October, and I think February and basically there's between 140 and 160 pairs.

So 160 recipients, 160 donors and then often altruistic donors who actually feed into the paired exchange as well. And they're like supercharges, right? They can really make these chains work a lot more efficiently and effect. Every three times a year, basically this, massive set of, data, HLA numbers, blood types, everything else goes into these algorithmic supercomputers basically.

And and then they put out the best potential chains of of donor groups that, that match as many people as possible. And then it's, that's reviewed by by the, transplant team to make sure that there's no other reasons why things shouldn't happen in a different way.

From [00:27:00] our experience we went in there with the math and it was a one in six chance and 160 pairs. So therefore you've got about 25 chain pairs or so that are gonna work. And it wasn't actually, we actually missed the first one and which was a bit weird cuz we're like the math says we must get a in, in 160 pairs that has to be a match.

So that was a bit of a, surprise in, kind of October of 2016. But then it was at the end of January of 2017 was a Friday and I got a call from from the hospital, from the transplant team saying we've got a perfect match for Jo. Your kidney's gonna be an amazing match for another recipient surgeries in three weeks.

Wow. And, Jo got the same call about just before that or, just after that. So we called each other and we're like February's a really busy month. We've got conferences, we got all these meetings. We gotta go to [00:28:00] Florida. And that that conversation went on for about 30 seconds and we're like, this is completely ridiculous.

Drop all tools. Call the office. We got better things to do. And it's just, it's one of those moments in life where you're so blessed when you can go into a situation and there's absolutely nothing more important you can do. And it's having your, having a baby or getting married, or often sadder occasions.

But when, the most important thing you can do is just sitting there in front of you and the path is so clear. Drop, everything and go for it. And I saw like all the, my team around me were just amazing that the way they stepped up our friends, the way they stepped up family and everything else, and just to have those moments in time, moments in life and time just stops.

It's as a donor that's why it's a weird [00:29:00] phrase and I've never really figured out, the, gift is the blessing of the giver. And I've tried to figure out what that actually means, but in my the blessing is, in the giving. And that comes back to the giver.

And it was that incredible moment in time to just be with Jo. And it was like a second supercharged honeymoon we were just February and March 20th, 2017, just watching. There was no time, it was just the two of us and getting better and our mom's taking great care of us and it was amazing.

And that's to see the transformation in Jo and right. That's the importance of it. That's to see somebody who just weeks before was, very sick, even though she was so strong that you never have known all of a sudden be completely transformed was just an incredible [00:30:00] I was the one who won.

For sure. And then just having that time together was incredibly special as well. Wow.

Joanne Kearney: What Brendan is saying and what he experienced and what he continues to talk about was a huge. Surprise to me that we knew we were talked through what it's gonna be like as a recipient.

Of course, there's a lot of emphasis on the recipient and then a little bit on the donor. We think there we hope there's, an increasing amount. So we knew what it was gonna be like, but it positioned as this huge ask a big risk and a a selfless act. But it's also an imposition.

What was very surprising for me is to see how much Brendan got out of it, cuz I always

of wondered, oh my gosh, I'm gonna feel so indebted to him for doing the most amazing thing. And it's such a hardship for him. So together seeing that he actually got something in addition to giving me this amazing [00:31:00] second lease on life and all the time and energy we can spend together because of that.

That's what we wanted and that's what we expected and that's been so amazing. But then seeing. That other layer of impact on Brendan has been truly the most rewarding thing which was completely unexpected.

Candice Coghlan: From a recipient perspective it's both heartbreaking and, incredibly touching to be able to hear you speak Brendan.

I don't often get choked up. I'm quite good at that. Hearing it directly from you you I'm, I just hear love coming from you and that incredible gift that you've given Joanne and being able to continue your lives together in the way that you originally wanted to, because [00:32:00] you donated a kidney through the paired exchange program and knowing that impact that forever recipients are we're here because of our donors. And we're able to do not just the big things, but also small things. Like for me just waking up and feeling like I don't have to nap 10, 15, 20 minutes after I get out of a shower. Like all of these little things that you guys have done as donors to also be able to hear from you, that it's made such an impact in your life is just so beautiful.

And, thank you to you for that incredible gift that you have to Joanne and thank you to all donors, because as much as we say it often, you guys truly have given us our lives back. And it's amazing to be able to see how healthy Joanne is and how wonderful that surgery went for both of you.

As, [00:33:00] Brendan said, It, he watching me feel so good and watching me have this new lease on life and this new energy was, is a question that I think you have when you are someone who's doing it preemptively because you're, trying to time the transplant as much as a course, the system allows and then, and how your health is doing, but you're, not living on dialysis.

You don't have that element that Candice you have great experience with. And you're also hoping that you're staying as healthy as, you can. So you're creating in a certain level. You're all the different things that we watch for. So you wonder, am I gonna feel better? Because while you're living with kidney disease and end stage kidney disease, I still never associated with being sick.

I had all these weird ailments that sort. I had to deal with, but I never associated as as a person living with an illness. And so my worry was, I'll do this and you, I'll undertake this surgery. Brendan will have to go do something that sets him back for a period of time. And then I'll have to live on these immune suppression drug to the rest of my [00:34:00] life.

So you wonder and I have to say that is not a consideration. Go do the transplant because I instantly felt better from the moment I woke up in the post off room where you have even remember if you're like, you're still all you're in very much in the bit of a daze from the operation, from the anesthetic.

And I remember, oh my gosh, the itchiness is gone. And I just lived with this under an underlying itch. For years. And it had gone more, more severe in later years as, my decline had accelerated. And it was, and it just was, I got used to it.

I was annoyed by it. Brendan would hear me complain about it all the time, but it was gone.

And that was in the first second of me, even just having a memory post transplant, let alone how I, how my recovery went. And so you don't, you learn how to live with kidney disease very, well. And you don't realize how well you could feel. And that's the most amazing thing that [00:35:00] transplant. It brings you back to a hundred percent.

Yeah. You have to live on some drugs, you manage that, but it brings you back to a hundred percent where you haven't felt in years or maybe ever. And so I think people often consider, am I gonna feel worse? I, there wasn't a day where I felt worse, even as I had to deal with the typical post-op recovery.

Joanne Kearney: I only ever felt better. And every day and every year, I think, wow, I still feel it so amazing. And I still overtake the time to remember that. I didn't feel like this for a big part of my life. Yes. And that's all.

And I'm with you on that? My creatinine, when I went into the emergency room hours after I had blood work done, when I crashed was over 1200.

And so I was walking around with gosh five or under percent kidney function. And this had been present in my life. They think for a good 10 years, but just was never caught by a family physician. Because like you said, there were [00:36:00] so many symptoms that could be attributed to other things. So my itchiness, it was psoriasis and that's why I was itchy because I had big patches of psoriasis or I had food allergies or I was low iron and that's why I had, or low other things.

That's why I had leg cramps or foot problems. And as a young person, all of these symptoms for kidney disease, Like you said could be attributed to other things. But then when I went on dialysis, my psoriasis went away. It was instantly gone because now that machine was cleaning my blood for me.

And so that was the first step to feeling better is that all of a sudden, some of those symptoms are gone and then transplant like you, my first memory was waking up and saying, I, I can't believe how good I feel like I'm in pain. Of course it's a major surgery, but I couldn't believe how much energy I had and how good I [00:37:00] felt.

And I tell every person who says either I'm comfortable on dialysis, I don't wanna think about transplant or what was the difference? Even my worst day so

far with my transplant is far better than my best day on dialysis. And it continues to be that way, even when I do have a bad flu or colder, any of that, that transplant truly is so transformative for us. It's amazing. So is, I'm gonna ask you first Joanne, since we've been chatting with you about your recovery and about the surgery there's a lot of , potential recipients who could have a transplant, but maybe are nervous about accepting a living donation.

And they could be worried about what that impact is gonna be on their loved one, or what the risks are for somebody who might be on the fence about saying yes to someone who is, [00:38:00] who wants to be their donor, what would you say to them?

Talk to Brendan!

Honestly, like I think talk to these amazing people, Brendan and I you've done it many times and I know every other donor I met would be equally as willing talk to them. Listen to what they have to say, because. You're gonna be so in your own head about what, you're, what you think you're asking, what you're managing and what impact that's gonna have, that you're assuming things that may not be there.

And I think if you hear from people who've gone through this experience and what they've got out of it it it's, wonderful. And I think it's almost talk more to a donor than another recipient or find a, couple or people a group of people to talk to. Cuz I think the more you hear about it, there's a lot of myths that can be busted and there's a lot of clarity that can be offered and there's a lot one of the biggest things we struggled with, which is the lack of [00:39:00] certainty and that was hard for me to watch Brendan, that he had a couple years of, uncertain time, was the transplant gonna be this year?

Was it gonna be this quarter, et cetera, et cetera. All of that can be helped address. Or minimize at least through conversation. And so it's talking about if people have been through it, but also talk about the people around you so that it doesn't feel like you're having to ask, because you will find that people, humans can be remarkable people.

They, might just do it. They might just submit their questionnaire and they might move forward. So don't be afraid to talk, to people around you about what you're going through and talk to those that have been through it because they all have a lot of insight to share.

Candice Coghlan: Amazing. And on that note Brendan for on the donor side, if somebody's considering living donation what would you share with them?

Brendan Cahill: It's it's, major surgery for sure. Jo got a kidney. I got, she has more kidneys than I do right now. I think [00:40:00] so only one works though.

yeah, so I got three and only one of mine works. So it's yeah, it's major surgery especially at Toronto General and especially in Canada, like some of the best surgeons in the world, you're in incredible hands. And for, me I, took two weeks off work. I was back to work in the third week, which was a little bit too soon.

I would say we had to come home really a couple days, but then I was backing the playing squad. You're luckily your team sent you home early, you had a wonderful team around you. . Yeah, but I, was back I was back playing squash and swimming after six weeks five, it could have done it after five weeks.

So and, that's not to say that every recovery is gonna be the exact same, but. It's, one of those times where you just take the time to rest and you recover pretty effectively. And I would say it was a little bit ti, more tired than usual for about six months, but then after that [00:41:00] absolutely fine.

And now over five years later my kidney function and creatinine levels and everything else are, pretty much normal, you really do balance back very, well. And and just the reward is, it's everything right? And like it's just it's to, to have the opportunity to do it.

I would recommend it to anybody. And going back to what Jo says about speaking as a recipient looking for a donor that, that's one of the things like we were lucky, like I was there, I was ready to go. And it was just like a really clear path to follow. But one of the things is you look back and say, what about the people who just, they couldn't speak out.

They didn't have anybody a that's that was it's horrible to think that, like everybody, everybody [00:42:00] has somebody who will step up and, donate everybody does. But not everybody is, informed well enough to, know, to ask what to ask for. And that's the real thing that we've been working to change and, with your podcast as well is just so that people on know and understand like what their options are.

And it's, not a, selfish ask at all because you're giving somebody a great opportunity. And the more we can do to talk about that, make sure that people realize that they should ask nobody is gonna be coerced into doing this. that's

the, thing that I think really hurt later on realizing that people didn't have people to step up and who were too afraid to ask for it.

Candice Coghlan: So I think that brings up a good point that I often talk to people about as well is, if, you're uncomfortable sharing your story too, [00:43:00] find somebody within your close circle who could be your advocate and who could tell that story for you. Because if you're going through something like this, there are people around you who wanna help and they may not be able to be your donor.

They may not be able to donate blood, but there are things that they can do. They can help you share your story and they can help through your journey as well that. We had a very large community and we have a very large family as well. So even through our journey bringing over food or driving me to appointments or taking the dog for a walk, if we just don't have the energy.

So there's so many things that people can do to support other people while they're going through this. And if you're not comfortable asking, find somebody who could be that advocate for you to, really share your story. Because as you said, Brendan, there are people out there who wanna help.

They just don't know that they can or how to, so both [00:44:00] of you through this incredible journey have taken all of your knowledge and your experience and, the two of you pivoted, and co-founded the Centre for Living Organ Donation, which is where I work. So I'm wondering from, your perspectives, what was the driving force behind that decision and why is it so important for the two of you to give back this way?

Joanne Kearney: A a few months after the surgeries and we were talking about our experience and talking about what we went through and how lucky we are Brendan

of

talking about, as he just has that how there's this loneliness around organ donation that some people don't have someone or don't know how to make that ask or aren't able to make that work for them.

And Brendan started talking a lot about how that that was a really hard part understanding of some people that we met along the way, or that we learned through statistics that. [00:45:00] there was just this huge amount of loneliness that we, thought was so different from our experience. And we had such a

tremendous, yeah, it had our hiccups along the way, but in the end it had such a tremendous outcome that we said, how do we, help more people have that outcome?

And selfishly I, joke that every morning I thought I have to wake up and thank Brendan for giving me his kidney and thanking the exchange donors and everybody and, be incredibly grateful as I am for this, life that I have. But I also could I'd like to be very action oriented.

So how can we take that gratitude and take that amazing gift that Brendan did and try to pay it forward even more than the paired exchange did. And we sat down with the team at UHN, who we gotten to know really closely and started to understand their priorities and sat down with our families and said, this is something that we want to try to get behind and try to just do our little part, to get, to basically have more people have the same amazing outcome we've had because there were [00:46:00] hiccups on the way that I think with a little bit of maneuvering could be prevented.

And we have the most amazing transplant hospital at our doorstep here in Ontario. And a lot of people don't know about it. So we need people to know about that and we need to help them navigate it. And, then if we have more people who can of have our same outcomes that helps the system and that helps it helps at so many different levels.

So the when, the team brought us the concept of the Centre for Living Organ Donation we immediately loved it because it talked about patient care. It talked about the team around living donation. It talked about being a world class leader and being a first and, doing something comprehensive most importantly for, us and for our families. It puts the Centre, it puts Brendan and donors like him at the Centre of it where sometimes they're not because it's the recipients were sick and, they take up, the, vast majority of the focus of the healthcare teams.

So this Centre is about people like Brendan [00:47:00] and making sure there's more people like Brendan for, those that need it.

Candice Coghlan: Amazing. And that's a, beautiful love letter to our donors as well to have that exist. It's remarkable. Lovely, lovely. And what for the two of you, what are your goals for the Centre and just in, in general, the advocacy work that you do.

Joanne Kearney: I think it's repetitive, but I think the goal really is to increase access and make sure that access is, into every everyone who needs it, no matter

where you live in Canada, no matter who you are, no matter if you have a small network or a large network that everyone has that same access to these amazing outcomes that we've all had here.

And Dr. Tinckam, when we were talking about this in the early days, she's the mathematician. She is, she threw it a number. She said of one in 10,000 Ontarians donated their kidney today, there'd be no wait list. And I thought that's a tiny number one in 10,000. That's easy to achieve [00:48:00] and let's, make that happen.

We wanna we can say our, Hail Mary pass goal would be end the wait list. And in the meantime it's just increased. The amount of living donation increased the amount of surgeries that are happening and the more people that have access to it because it leads to these amazing outcomes.

And along the way, let's make the process a little bit more efficient and a little bit easier to navigate both from a system perspective and from having these conversations because they both matter, cuz it is so much around these conversations are incredibly important in the journey. And then so is making the system a bit more efficient so that more people have access to it.

So we end the wait list. I think that's. That's the vision.

Candice Coghlan: Amazing. That's absolutely incredible.

Thank you so much, Joanne and Brendan for sharing your personal journey with us and for sharing a lot of your passion and, what you have put into the Centre and your advocacy [00:49:00] work. And I'm in incredibly grateful for having the two of you as our co-founders and, being able to join your team this year.

So looking forward to all of the amazing things that we're gonna do together.

Thinking about that big vision that you've just laid out. I'm very happy to have Dr. Humar join us so we can continue this conversation on the large scale.

And Joanne, if you would like to introduce our, new guest, Dr. Humar.

Joanne Kearney: I think everyone knows Dr. Humar.

Not only is Dr. Humar, the head honcho, he's also infectious disease researcher and physician, and is leading the world in a lot of transplant related infectious disease research. And in his time as the head of the Ajmera Transplant Centre,

correct me if I'm wrong, Dr. Humar, but I think it has moved from a very good Transplant Centre to the best in the world, in my opinion, or officially ranked the largest transplant [00:50:00] Centre in North America and a top three research Centre competing against the likes of Harvard and John Hopkins. And I'm assuming the Mayo clinic, but we're up there, we're advancing them.

And it is incredibly amazing to to see it all under your leadership, Dr. Humar and, the amazing team you have there over at UHN. Thank you. Welcome.

Dr. Atul Humar: Thanks. Thank you.

Candice Coghlan: Dr. Humar, I'm wondering if you can tell us a little bit more about your role at the Ajmera Transplant Centre?

Dr. Atul Humar: I'm privileged to be in a leadership position in the transplant program.

It is as Joanne mentioned a, very unique and comprehensive organ transplant program, we do about between 600 to 700 transplants per year, which makes us one of the largest in North America. It includes liver, kidney, heart, lung, pancreas, small bowel transplants. Recently we launched an islet transplant program as well.

And it's a big team effort. You can't do this [00:51:00] without a huge team. And we have over 600 people working in the transplant program. So it includes physicians and surgeons and nurses, and. Pharmacists, a huge group of researchers that work closely with the clinical folks and many, more people.

Joanne Kearney: Dr. Humar, why did you pursue a career in transplant medicine?

Dr. Atul Humar: Oh I've actually like always been fascinated by organ transplantation. Actually even when I was very early in my medical career I was really like amazed at the profound and transformative impact that a transplant can have on a patient.

And very early during, my training, I had seen a few patients that were actually really quite close to death's door and has been completely turned around by an organ transplant. And I thought, okay, this is a field I ultimately wanna end up in and. As, time went on, [00:52:00] I I also realized that on the research side, this was, it was very cool because it was really on the cutting edge of modern medicine.

And really what attracted me to transplantation even more is that I saw these huge opportunities for some really ground groundbreaking scientific research. So, all of those things I decided very early in my career that ultimately I wanted to play some role in the transplant program preferably at UHN.

Brendan Cahill: Along with your leader leadership position you also have an active program of, research. So what are you, working on right now what's top of your mind? Yeah. COVID obviously being a real hot topic over the past for years or so. How has that worked with your research in, in transplant?

Dr. Atul Humar: Yeah, yeah, you're absolutely right. COVID has been a really important area for us recently, obviously, as it has for many people. [00:53:00] One, one of the key kind of, I guess you could call it the Achilles' Hell of transplantation is that we need to give patients immunosuppression in order to prevent rejection of the organ.

And what that does is it really knocks down the immune system. So it places our patients at unique risk for serious infections. The goal of my own research lab, And I work very closely with a group of other people in, including my wife has been to really develop ways to better prevent and treat infection in transplant patients.

And then this kind of very nicely fit into helping solve the problem of COVID and transplant patients. And really very early on, we realized that it was a pretty serious disease in transplant patients more so than in the general population. And one, some of our early research and research that others had [00:54:00] done had shown the standard two doses of vaccine that everybody was getting was, just not working in transplant patients.

They were still getting really sick and, coming into hospital. So at that point, we thought, okay how can we help solve this? And we did a really the first randomized trial to look at a third dose booster in transplant patients. And the trial was very convincing. It was a slam dunk that the, booster made a huge difference for transplant patients.

And we were fortunate enough to, publish that, but the FDA and the CDC and the bunch of other authorities became very interested and we shared all our work with them very early on, even before it was published. And the cool thing was that it, the data actually directly led to change in guidance, around booster doses for immunocompromised people.

And this was really cool for us as researchers, because you don't often [00:55:00] see that, there's this immediate and profound impact on the way things are done. And it had an impact all over the world and actually had hundreds of. Patients from all over the place, emailing me and thanking me for, or thanking UHN for doing this type of research.

So I it was a, pretty gratifying experience.

Joanne Kearney: I'm so glad that that, people reached out to you to thank you. Because you're often you and, Dr. Kumar are, both so humble in this achievement. And I always say, as often as I can.

Thank you. As, transplant recipient patients of UHN, I just felt like there was these amazing like this, we were being looked out for. We had the you and your team in our corner and you were doing everything you could to protect us as best as you could. And it was profound, the impact that you had, and then not only on me and on Candice and then our fellow patients, but on, on the whole community at large.

So I'm glad people around the world have [00:56:00] recognized that effort because we can often take the work that researchers do for granted, and it was so amazing to see and to see that it was you, and Dr. Kumar leading that and Toronto having this huge impact. So yeah. Thank you. Congratulations. Yeah.

And there's still a lot of work to do.

We never back then thought that we would still be dealing with COVID unfortunately, but there's still a lot of work to do, but we're in a much better place, I think, than we were a couple of years ago.

Candice Coghlan: I know when we first heard about COVID, my husband wanted us to go into isolation about two weeks before the NBA shut down and felt like once the NBA shut down, the whole world did, they're like, oh no, no sports.

Okay. This is serious. And I was annoyed with him and I said, oh, you're being too cautious. I'm fine. I'll just, I just won't go to big social events. And he said, no, this is serious. And we need to go into isolation. So [00:57:00] we did about two weeks before the rest of the world shut down. And I remember thinking I can't do this for that long.

This is a really, scary thing. And so in my head, I was breaking it up into these like little two week chunks, cuz I thought, ah, I can do anything for two weeks. And years later we're still talking about this, but right when I got my, vaccine, it was the first breath that I had taken in a long time in feeling like that change was coming.

And Joanne said that there were people out there who were advocating for us and that had our backs. And now I'm on my fifth dose. And I have also spoken with my nephrologist about EVU Evusheld. Can you talk a little bit about what that is and, how does that supporting transplant patients too?

Dr. Atul Humar: Sure. Evie Evusheld is a, different

way to prevent, instead of giving the vaccine to allow the patient's immune system [00:58:00] to make antibodies, you're just directly giving the antibodies. And it's a long lasting antibody. And so we have been administering that to our transplant patients and we're actually doing some research on how effective it is, cuz we don't really know how well it'll work against the BA five variant, which is the one that's currently circulating. So we are looking at that the more tools we have in our arsenal for this, that the better it is. And as the virus keeps changing, we gotta keep changing and we gotta keep evolving and, making sure we're on top of it, cuz you know, you're right.

It has a profound impact on, all of us, but especially our patients, especially you guys and you need to be extra careful, extra cautious and we gotta make sure that it it's not that you can still live a normal life.

Joanne Kearney: I got the shield shots. A couple weeks before I did some traveling this summer and it was [00:59:00] painless, seamless, really efficient process.

It was recommended to me by the experts. So I it was, I felt it was great to have yet another tool. I have to make sure I'm in that research project. I'll, I'll email the team. I was, I love being part of your one too eager results.

Candice Coghlan: That's fantastic. I'm wondering too, if there has been any transplants happened with COVID positive people, or if that is a hard stop for, transplants, if you're positive that

processes stopped.

Dr. Atul Humar: Yeah. It's a good question. And, initially in the pandemic, if the, if either the donor or recipient was COVID positive it was a, hard stop and things have evolved quite a bit since then. So now we're pretty routinely using organs from donors who are COVID positive with the exception [01:00:00] of lungs, but for example, liver livers and kidneys from, deceased donors who are COVID positive, we're pretty routinely using, and we have excellent outcomes.

We haven't had any problems with transmission. And then on, on the recipient side if they have active COVID, they're not able to get a transplant, but as soon as they're recovered and it usually takes a few weeks or up to about a month, we can pretty safely have them undergo transplant.

And they do quite well. So, things are evolving and we're learning as we go along along with the rest of the global transplant community.

Joanne Kearney: Great, amazing to maybe pivot from there, because I think what you're doing with the COVID positive organs that you're now transplanting is part of your, your innovation in organ transplant, Dr. Humar, I've had a lot of opportunities to, to listen to you present about the, mission of the Ajmera Transplant Centre [01:01:00] and be a, small part of those presentations. And I'm always very excited by the the overall vision, which is, leading the world in transplant by improving access to transplantation, leading innovation through things like organ repair, regeneration, and replacement, and recruiting the best of the best to UHN, to continue to grow into that role as this world leading program.

In my opinion, you've already achieved that. And it's only up from here, but I know it takes a lot of effort and I know it's a big part of your job and the job of the 600 people every day. So can you talk us a little bit more about this mission and, how you are going about achieving it and how are you as you do that improving care for, the patients that have a transplant in their future and are living with transplant.

Dr. Atul Humar: Yeah, to to me that that mission is really

what excites me, right? Like it's what gets me going. What I think has huge potential still. And it's very kind of you to say that we've achieved that mission, [01:02:00] but I actually feel like we've accomplished a lot. I totally agree with that, but we have a long way to go. We still have long waiting lists of patients who need a transplant.

We have some who unfortunately, don't get to transplant and we do have patients who develop complications. To the transplant or to the use of the antirejection medication. So, we, we have a lot of problems that we need to solve. But I'm pretty confident over time. And research takes time and especially clinical translation takes a lot of time, but I'm confident over time we can solve those.

And I think what's exciting for us is really that there's gonna be a lot of innovation taking place in medicine over the next couple of decades. And, I think really transplantation can be right at the center of that. So if you look at some of the technologies coming down, the pipeline, things like stem cell therapy, gene therapy, artificial intelligence, whole bunch [01:03:00] of other things.

All those can really intersect to really transform, like the way we're delivering medicine. And, I really feel that us as a transplant program and us as transplant researchers and clinicians can be right at the center and at the forefront of that. So I think it's a pretty exciting time for us and, for the field in general.

Candice Coghlan: and speaking of transformation, UHN was recently awarded that 24 million New Frontiers Grant to advance transplant research. We've touched base a tiny bit in a past episode about Ex Vivo,, but I'm wondering if you could talk about that New Frontier's grant and, what that is, and also a little bit about what Ex Vivo is and how that could potentially change.

Dr. Atul Humar: Yeah. Yeah. We were super excited to get that grant. That was a team grant for the [01:04:00] transplant program and that was over 400 people that had applied for a very small member of grants. And we I think pretty fortunate to get that. So the grant is focused on Ex Vivo, and that's really where you take an organ for example, from a deceased donor and you provide it outside the body, you provide it nutrients and oxygen, and you're able to assess that organ outside the body, just like you would assess a patient, for example.

And I think the really cool part and the transformative part is that beyond just assessing the organ, you have an opportunity to really modify that organ, to treat that organ. So you can use methods like gene therapy, or you can administer antibiotics or antivirals. You can administer certain kind of cells to modify the organ.

And you can almost try to create these super organs or organs. Not only better match to a recipient, but [01:05:00] actually will function better and be resistant to rejection, be resistant to infection. And that's where we really wanna go. And

that if we can get to even half of what we proposed in that grant, it's gonna just totally transform how organ transplantation's done.

Joanne Kearney: Wow. That's remarkable. That is amazing. Yeah. And don't worry, Brendan, you did have a super organ without all that.

He didn't need any Ex Vivo!

Candice Coghlan: Yeah. Yeah. And so what would that do for, we Joanne's talked about the wait list and how many people are waiting. And the fact that only about 35% of Ontarians are registered organ donors. And we know that often those, even those remarkable donors who do register their consent, sometimes their organs are not viable to be used.

And so would that kind of expand that pool of organs that would be available for [01:06:00] recipients?

Dr. Atul Humar: Yeah. Totally like our our , kind of transformational goal and, it's a stretch goal that we wanna eliminate the wait list. That's what we wanna do. There's and.

Different ways to get there. And I think we have to tackle all those ways. One is to increase the number of donors, whether that's living donors or deceased donors, and there's a bunch of ways to do that. But another way is to increase the utilization of organs that we get offered

so this, whole area of ex vivo repair and modification of tackles that second part of it. And that doesn't mean we don't need to tackle the first part. We still need to tackle the first part. We need more organ donors either deceased donors or we, or living donors. And there's lots of ways to do that.

And we're working on that part as well. And Joanne's act actually actively involved in that part as well.

Joanne Kearney: I think, that, you're right. Like the Centre for Living Organ Donation was [01:07:00] part in design is to optimize living donation and I'm often asked if it was, if all things were equal, would you choose a deceased or organ or would you choose a living?

And I think that's a really interesting question cuz people think this should be easy. Just do presume consent or just put all your focus on having more people sign their organ donor cards. And then what I've learned that it is we have lots

of organs. It's just whether they're viable, which is then what led us to really, in addition to what, how amazing what's surprising what Brendan did say, okay.

There really is this world that living transplant, not only just tackles the wait list, it also leads to better outcomes right now. Yeah. Is that a fair statement?

Dr. Atul Humar: It's a completely fair statement actually for, especially for kidney transplantation the, long term outcomes really are better with living donation.

Until we can get the long term outcomes with deceased donation, at least as good as living donation, then my preference would be [01:08:00] a, live donor kidney in that setting.

Joanne Kearney: Is it the same on the liver side? Is the benefit similar?

Dr. Atul Humar: Yeah. The liver side is, a little bit different cuz they're the, outcomes are actually still better with living donation.

But the reason is because there's not enough livers, right? So often unfortunately those people waiting for a deceased donor, they either get really sick or they actually pass away before they even get to a transplant. And that's why the outcomes are better with, living donor liver.

But if we had enough deceased donor livers, I think, that would be our preference in that.

Candice Coghlan: and is that too, because that surgery is a little bit more risky for liver donors than it is kidney donors.

Dr. Atul Humar: Yeah. It's, a pretty complex operation, but we've, managed to, do it very safely and knock on wood.

We've had excellent outcomes in, in, in our donors, but the reason that we've made a [01:09:00] big push in living donor liver transplantation is cuz of a shortage of deceased donors.

Candice Coghlan: Wow. And so thinking about all of these amazing innovations I, heard you mention AI and I, know a lot of people in our world are fascinated by any kind of tech that could be used to advance healthcare.

What would be those AI interventions that could support transplant.

Dr. Atul Humar: I think it's, in its infancy right now, but you can imagine, for example, really complex matching algorithms that can be used. And and even we're doing things like Paired Exchange and of course Joanne was involved in a Paired Exchange, but you, can have very, complex Paired Exchange algorithms across the country, or even across the continent, for example, that can be driven by [01:10:00] very precise matching tools and things like that.

So there's a lot of potential for these kind of AI driven or even complex computational algorithms to, help in that kind of decision making. And then even on the post transplant side the our patients can be very, complex with a lot of different things going on and tools that can help physicians kind of navigate through that complexity could, really help make a difference.

Joanne Kearney: I think what always strikes me is the pace of change. Sometimes it feel we talk about these huge innovations that might be 20 years off from a clinical setting, but then we're up Brendan and I are often reminded that what we did, the Paired Exchange really only started to be a common And still not very common option or what around not 2009, 2010.

So at our transplant 2017, that [01:11:00] if I had gone into organ failure, a decade earlier, we wouldn't have had that option. And it would've a very different outcomes for us. And so then in that way, the pace of change is actually quite fast. And that really excites me being involved with the Ajmera Transplant Program or should I need something in the future?

I, who knows. Dr. What, it's gonna look like, or you have a vision, but it's this tremendous time to be in medicine when there's so much hope when you're in this field where it really is defined as giving hope and second, a second chance of life. So it's, it is very exciting. Do you think it's gonna look very different 20 years from now than it is today?

Dr. Atul Humar: Yeah, I think actually, I don't know what, it's gonna look like and that's part of the excitement. Cause it's gonna be totally different. I can tell you that even, 10 years from now, it'll be very different, but 20 years from now, it's gonna be totally different and it's gonna be, I think, very exciting and, very good for our [01:12:00] patients.

And I would say even, in the last five years that I've watched things change a lot in our program like we're pretty routinely using Ex Vivo. We've doubled the

number of lung transplants. We've increased the number of liver transplants by over 30% using some of these technologies.

We're very routinely using hepatitis C positive donors, which we never would've done in the past. We're with COVID we're using donors that have COVID which we've even thought of doing two years ago. So things change very, quickly. And it's all changed for the good, it's all changed that helps people. So, I think I'm looking forward to seeing what's around the corner.

Candice Coghlan: My great-grandmother had a pig valve in her heart for, quite a long time.

Yeah. And she lived with it very successfully. And [01:13:00] this was when I was only, this was probably 20 years ago, 15, 20 years ago that, she had it. That has also been a, big interest of a lot of people is, that idea. And I'm wondering if there's any insight into if that would ever be an, option for, transplant, like organs, like kidneys livers.

Dr. Atul Humar: Yeah. It's a good question. So that that's called Xeno transplantation and there's a actually, because of a recent Xeno heart that was done in the United States, there's been a, renewed interest and excitement in that field. And I think there, there are a lot of immunological barriers to Xeno transplantation, but if those can be overcome. It's a potentially pretty revolutionary development in transplantation. And as I said there's, all these kind of competing technologies going on, like stem cells and [01:14:00] Xeno transplant is another one. Gene therapy is another one and which of these will be the solution or will it be a combination of these types of things that will be a solution, but regardless it's all of these things are gonna really pretty dramatically change the way we deliver care.

Candice Coghlan: So I know another thing thinking about how things have changed so quickly. My grandmother had a kidney transplant when I was about eight or nine years old. And I remember her taking these mass amounts of immunosuppressants and today I take three types of medications for my transplant.

When I decided that I was going to plan a family, I didn't have to change my medication.

The changes that have come how much easier it is for me than it was for my grandmother. I know you've done some research in immunosuppressants.

Would that be [01:15:00] something for us recipients to look forward to in the future that could continue to be reduced?

Dr. Atul Humar: Yeah. So I'm I'm very pleased to hear that it's much better for you than it was for your grandmother. So you know, that whole area of research is called tolerance. And it's always been the holy grail of transplantation is to try to induce tolerance, meaning allowing patients to come off of immunosuppression completely.

Wow. That, that would be wonderful. We've got a huge, research interest in that throughout our, transplant program. We have a number of investigators working either in the lab with cells or working on animal models or working on clinical trials in that area. And, there's a lot of different avenues to try to induce tolerance in patients.

There's a lot of different approaches you can take. One of the ones we're really excited about is [01:16:00] if we can use specific types of immune cells called regulatory cells, which as they, as the name sounds as they regulate the immune system and, can hopefully prevent rejection without the need for taking anti-rejection drugs.

So this is kind. Very active area of research. It's a few years away. People have been working on tolerance since we started doing transplantation 50 years ago. So it's a challenging thing, right? Cuz you're getting an organ from somebody else and to try to trick your immune system into not rejecting it is it's a pretty, pretty high bar.

But but, we've made progress and I'm I'm pretty confident that we will continue to make progress and we'll get there.

Brendan Cahill: And, so doctor on the induced tolerance, is it at the time of transplant the, incoming organ has to be induced or, the immune system has to be induced to be tolerant, [01:17:00] or do you think there's a possibility that transplants that were done five years ago?

For example loaded question the, immune systems could then actually be. Induced to be tolerant.

Dr. Atul Humar: Yeah. Yeah. It's a good, it's a good question. So there's we've got research, ongoing looking at both of those things, so right from the time of transplantation, whether you either modify the organ and that's where the Ex Vivo piece comes in.

The organ is more tolerogenic or you modify the recipient's immune system, but we've also got some ideas of looking at as you, the second scenario, describe patients who are longer term and looking for example, at if you could give a cell infusion of regulatory cells in that setting, and then we, the patient off immunosuppressants completely or, maybe not even completely, maybe mostly [01:18:00] we think that would be a huge advance as well. So we've got active research going on in both of those scenarios that you propose and following off from that as well.

Brendan Cahill: The, RNA vaccines they've been so effective against COVID, is that feeding into some of these treatments at all like that, that new technology?

Dr. Atul Humar: Yeah not, so much because the, vaccines are, primarily to boost the immune response. And we haven't so much been looking at RNA technology. There are ways to look at mRNA technology where you can trick the immune system by creating certain proteins by delivering mRNA.

And but that area of research is, I think pretty early on, although there's been a lot of excitement because of the success of these mRNA [01:19:00] vaccines. So we'll see. It's a really, it's a really good question. And I think that field has got a renewed excitement after being around the mRNA field has been around for many, years, but it's suddenly people are seeing that there's actually pretty huge potential to that field.

Candice Coghlan: I think that's great to hear too, because often some of the feedback that I heard from people just directly outside of my circle was a fear of the COVID vaccine because it was so brand new and this technology is too new. But I I have friends who are scientists and, do work in, the field who have said it's, not new technology.

Dr. Atul Humar: Yeah it's, a new virus, but the technology has been around for a very long time. Yeah. That's a really good point. And also I would add if you count up all the doses of these mRNA vaccines that've been given, it's probably eight [01:20:00] to 10 billion doses worldwide. Which is way more than any other vaccine ever given.

So I think we've got enough data to say they're pretty safe, right? Yes. Yes. That's amazing.

Joanne Kearney: There's a lot to get excited for and look out for in the future of transplant. I'd love to go back to something you said a little bit earlier, Dr.

Humar, around some of today's realities and while it's an amazing program, there is still some challenges that, that patients face and that you and your team have to navigate.

Mainly I, from what I understand it's, really like a shortage of organs and that's why there is a wait list. It may be a shortage of organs and like the system capacity. So what can be done at a systems level to try to relieve some of those barriers. And I'll also pose that question in the context of we have a new go a government with a new mandate, a strong mandate that they're here for four years.

And healthcare is obviously the number one topic of, [01:21:00] this government's mandate. Because it needs to be and because of COVID and what the, state of the system so what can, we do to be realistic and relieve some of these challenges and what can we do partnering with government, or what can government do to try to help programs like relieve these challenges so we can achieve these grandiose gold, which also include making it more efficient and making it an easier process and getting more done in your, or, and through your through your medical teams.

So what do you think let's talk the system level.

Dr. Atul Humar: That's a big questions. Very it's probably a whole different podcast, so maybe we could just answer as a teaser. Yeah. So there's okay. There's a lot of things that can be done. If we just, tackle the donation part of it. Okay.

And if we just maybe look at deceased donors there's a lot of potential to increase the number of deceased donors and the way you tackle that is, is really. [01:22:00] The government has to put a, an investment in deceased donation, which they have done, but there's, a lot more that they could do.

Building this kind of culture of donation in, the community through awareness and education is really helpful. And then things, legislation like presumed consent, for example, is also helpful increasing resources to donor hospitals in the ICU. So that there's donation champions in, every ICU, that kind of thing helps.

So all of those I, think could actually go a long way to increase the number of available organs and then to match that they'd have to put more investment on the transplantation side, right? We'd investment in operating rooms and beds and critical care capacity, all of those to be able to carry out that transplant

activity, which we're more than ready to do, actually, that would be our a dream come true for us.

If we had, if we could [01:23:00] do two, 3000 transplants a year, that would be fantastic, but we'd need that investment in, infrastructure and people to be able to do that.

Joanne Kearney: And what about, so we, you touched on deceased donation, you touched on government investment and in expanding the system capability on the living transplant side, which is the current one of the current ways to try to augment the yeah the organ shortage. What can we do? Is there, what ways that we can consider with government's help or policy incentivizing living donation or making it easier for them, or there's the, voucher system, which is donate today. But if your loved one needs one in 10 years, they go to the top of us, like what's being done, what could be done in the policy level to enable living donation to also play its part in an expanding capacity?

Dr. Atul Humar: Yeah, I think the living donation is hugely important. And and there's, almost unlimited [01:24:00] potential to grow living donation. And I think there's a lot that can be done, but there, and there's other things that we just haven't thought about, we need to really brainstorm around, but one of the key things is maybe not incentivizing.

We really don't pay or pressure living donors in any way, but at least we have to remove any disincentives. There is a cost to being a living donor you're off work for a period of time. There may be other, financial limitations. There might be look, you might person may need to look after other family members or things like that.

So there is a cost and we have to really make a concerted, concerted effort to remove any disincentives, to living donation, to make the process as easy as possible. For, those people who are who are [01:25:00] really doing an amazing thing.

Candice Coghlan: And I think a lot of us bring up the one day donor workup that happened in Ireland as like a, pipe dream per perhaps, or just something that we've heard of that would be so remarkable when I mentioned it in passing to my mom who is my donor.

And she was so enthusiastic about getting the test done that from start to finish, she was about seven months. And we were even told that was really, fast, because she asked people to call her if there were cancellations and she was just

really on top of everything, wanting to be my donor enthusiastically, like you Brendan.

Have we ever thought about trying that one donor day workup or has that been looked at from Ireland?

Dr. Atul Humar: Yeah it's a good question because we have tried that and it's been a goal of mine to have an expedited workup process. And [01:26:00] and it does occur at many Centres. And I can tell you I've spoken to colleagues in the us where it, it does actually occur.

And I think the reality is to be blunt is we're in a very resource limited healthcare setting. That that prevents us from doing that. Even when we want to there's some situations where we may not wanna do that, where we wanna give the donor time to think about it before they donate, but there's clearly situations.

Donors would very much appreciate they come to the hospital one day and they get, see everybody, they need to get, they get every test they need to get and, then they're done. And then they can think about it all they want before the surgery, but at least they're done all their testing. I think it needs some investment from the government to, to make that a reality, but we'd certainly be happy to do that.

The good news is you can do it in the liver [01:27:00] on the liver side quite efficiently, given the health circumstances. So you have a model when the kidney world can shift yeah. Can follow when ready? Yeah, we can do it as you say the will is there and we have, we know how to do it.

It's just so you know, where we don't have sufficient resources to do it really.

Candice Coghlan: And then thinking about You know the differences at, UHN and some of the innovations that, have come forward directly from your team. I had a gentleman approach me who was one of the first people to receive a , kidney transplant from a woman that he didn't know, and this happened quite a while back, but we've, focused on his story and, shared that on our social media and he over and over talked about how grateful he was to UHN for being open to this innovation.

And then also talked about how [01:28:00] incredible it is that there are these altruistic donors who come forward. And I know in many countries that's not legal that your, donor has to actually be related for them to allow that process.

But the case for altruism at UHN, we have a remarkable number of donors who on the liver and the kidney side have stepped forward to donate.

And we have a couple people on our committees who have done both liver and kidney. Yeah. And I'm wondering, from, your perspective when did that shift happen and was that a, thought process that came to be to increase living donation and I'm sure there were a lot of ethics meetings that, that had to happen to make that happen.

I get, I guess there's no question there just a thought of how remarkable the team is. Yeah.

Dr. Atul Humar: I not only that, but these donors are remarkable people, [01:29:00] right? It's, actually quite an amazing thing. And we're very supportive of the anonymous donor process.

We do it very carefully. We do it very carefully just to make sure that the donors know what they're getting into, they know what's involved, and these people are just really amazing people and it's actually helped a lot of recipients and actually just last year we did our hundredth anonymous live donor liver transplant, which is more than anywhere in the world.

So it's a huge accomplishment. It's remarkable. Yeah. Amazing. It is. Yeah. Wonderful people who do that.

Candice Coghlan: Thank you so much, Joanne and Brendan for your amazing advocacy work and for sharing your personal journey with us today. And Dr. Humar, we're so grateful to have you as a leader in creating such amazing change and driving innovation to [01:30:00] save lives. So thank you all for joining me today, but I do have one final question for all of you that is not transplant related.

If you listen to the podcast, you know that I always ask people if you were a tree, what kind of tree would you be? So I will start with Brendan.

Brendan Cahill: Oh my God. I have to start that's a brutal question. Nice. I'm so glad I listened to the transcript of your podcast. So I knew this was coming. Yeah. But if you knew it was coming, JoJo, you can go first.

Joanne Kearney: There you go. Okay. I'll go first. You might have to help me out there, Brendan. There are, we have my, dad, my family has a, family farm in Ireland that has been in our family for well over 150 years. And there are these,

stunning trees in some of the backfield that have been part of the land for hundred and hundreds of years.

And I'd say, Brendan, do you know what kind of trees they are? I think there are Oak. Their old trees. They huge oak trees. Yeah. [01:31:00] Yeah. And their, trunks are huge and they're so deeply rooted and they bring so much beauty to this farm. So I'd say that's the kind of tree I would be standing strong and solid and very rooted in where I come from and rooted in family because it had that these trees predate our family being there and hopefully adding they add beauty and value to the land in, everything that land does.

So I hope that I aspire to do the same thing in my life. So I think that's what I am the Oak trees in our farm in old castle county, me in Ireland.

Candice Coghlan: and Brendan, how's that for follow up? Oh man. I got nothing. I've never been out. You could ask me other questions, but that's one question I've never thought of.

I like to put people on the spot. Yeah. I honestly got nothing. We can we can go to Dr. Humar and you can keep thinking, okay.

Dr. Atul Humar: You know what? I don't know too many different kinds of trees, but [01:32:00] I guess maybe a Christmas tree. That's good. Yes. Good, good symbol. Symbol of hope. And, they're always green, so I love it.

Joanne Kearney: That's fantastic. I that hope correlates really nicely to the work that you do. If you had the concept of, hope and renewal and rebirth and whatnot, so that's a great one for your, role in transplant. Dr. Humar. Thank you.

Brendan Cahill: Yeah. All I can think of is a blue spruce, which is like a Christmas tree as well.

But that's all I can think of.

Candice Coghlan: You learn so much about the person by what kind of tree they, would like to be.

So thank you for, answering that to the best of your abilities after I put you on the spot like that. but again, I wanna thank you all for being on the podcast today. We're so grateful for all the work you do thank you guys coming.

Dr. Atul Humar: Thank you so much.

Joanne Kearney: Thank you for doing this Candice, it's amazing work. I love listening it to clearly, Brendan, I need to start sending you the the latest season, cuz you [01:33:00] just started the trees in this season. Yes. I love listening to them.

I dedicate time. They're always full of emotion and information. It's a tremendous part of the work of the Centre and we're, grateful that you do it.

Candice Coghlan: Awesome. All right. Thanks everybody.