



### Episode 7: An Ambassador of Australia's Health Industry – Dr Hal Rice

Speaker 1 ([00:02](#)):

This is a podcast by Lumina, the perfect space to innovate, collaborate, and grow in health, science, and tech.

Rebecca Griffin (host) ([00:12](#)):

Dr. Hal Rice, welcome to HealthTech Talks.

Dr. Hal Rice ([00:14](#)):

Thank you very much. It's great to be here.

Rebecca Griffin (host) ([00:16](#)):

Hal, you're a medical doctor and you've established the innovative neurointerventional department at Gold Coast University Hospital. You are the founder of Qscan Radiology Clinics, and you're recognized for bringing international medical conferences to the Gold Coast, generating millions of dollars in revenue for the city. And in the last couple of weeks, you've been named Gold Coast Australian of the year. Massive congratulations, Hal.

Dr. Hal Rice ([00:39](#)):

Yes, look, it was a big honor and to be honest, a big surprise on the awards night to be selected. There are amazing candidates, so it really is a huge privilege. I think it's really nice, the recognition that not just myself, but my team who worked tirelessly to provide the service we do here locally to the Gold Coast, Gold Coast Uni Hospital, and in the Gold Coast Health and Knowledge Precinct here. I think it's great recognition for the whole team and really health in general. There are thousands of doctors, radiographers, nurses working tirelessly around the clock, keeping the city safe and the tourists safe as they come through with their various health conditions. So really, it's not award that I see taking myself, it's really sharing with the whole healthcare community.

Rebecca Griffin (host) ([01:21](#)):

And Hal, you've had a really outstanding career. And one of the many reasons you were recognized, and your team recognized is the incredible work you've done in establishing an internationally recognized center for stroke diagnosis, treatment and research at Gold Coast University Hospital. What are the benefits to patients, doctors and the medical industry in this work that you have done?

Dr. Hal Rice ([01:42](#)):

Yeah, again, it's a huge team effort, and I'm only one part of the team, but the key area that I'm involved in is really the treatment of stroke. So really in the last 10 years, the treatment of these very severe strokes. So, just for people listening, a stroke is generally caused by a blockage of a blood vessel within the brain, and that reduces blood supply to a critical area of the brain. And then, the patient will present with weakness on one side of their body or difficulty talking.

Dr. Hal Rice ([02:06](#)):

And what we've found in the last few years, and since 2015, where there are a number of large international trials that were published, and we were involved in one of those trials in 2015, it showed that if we physically went into the brain and into that blood vessel that's blocked, and unblocked that blood vessel, we can get an amazing result



for the patients. Now, it is very time sensitive. So, what that means is we have a whole team that are on call 24/7, and at two o'clock in the morning are in there, saving these patients.

Dr. Hal Rice ([02:33](#)):

Now, not all patients are ideal candidates for this treatment. So then, we use really high-quality imaging, so CT scans in the emergency department at the hospitals to really triage and work out which patients are best and optimal for this treatment. But it really is a wide range of patients from 15-year-old children, right up to patients in their 90s. So everyone thinks of stroke as being an elderly disease, but we do see a lot of people in their 40s, 50s, 60s, in the prime of their life. And may be at the gym or going for a run. And they unfortunately then get a blockage in one of these blood vessels. And unless we're able to do something about it, the patients either don't survive from the stroke or are less severely disabled and unable to care for themselves or return to work and their normal daily activities. So, it is a massive thing. And it's great that we have this service here on the Gold Coast.

Rebecca Griffin (host) ([03:21](#)):

And how you said there're about a 15-year-old. Is that rare for someone that young?

Dr. Hal Rice ([03:25](#)):

It is rare. Yeah. Look, it is rare, but it's one of the things that we see from time to time, several times a year. Children do get strokes, but thankfully, it's very rare. And it's more and more the adult population we see.

Rebecca Griffin (host) ([03:37](#)):

And what has the flow on effect been for the Gold Coast in Australia from this working straight diagnosis and treatment?

Dr. Hal Rice ([03:44](#)):

Well, I think internationally, the prevalence of this form of active stroke treatment has really flourished since 2015, and like us keep saying, it's not just our own work here. We're part of a huge international community and a national community. What we're seeing is there's very similar services being set up in many different countries around the world. Now, there's lots of countries in Asia Pacific where they're not fortunate to have the equipment or the expertise. So one of the things we're passionate about here at the Health and Knowledge Precinct and at Gold Coast Uni Hospital is prior to the pandemic, we had a lot of these physicians from Asia Pacific neighbor countries who would come and learn from us, that'd watch us operate, we'd teach them some of the techniques that we use for these things in treating brain aneurysms, but also stroke. And then, they're able to take these back to their country and treat their own patients.

Rebecca Griffin (host) ([04:28](#)):

And what about their use of the equipment? Because I imagine they may not have the same equipment that we have. So how do they go back then and use that knowledge and skills?

Dr. Hal Rice ([04:37](#)):

It's amazing what they do with the equipment they have. So, we are really privileged here. We have the best of the best. That gives us a lot of confidence. We can see when we're in somebody's brain and the blood vessels, we can be very precise and very accurate and really the success of what we do relies on that. But one of the things with some of the developing countries, yes, they don't have the equipment that we are privileged to have. So, one of the



things with us training is to show them the technique when you can see it very well. And then, it means also if you've learnt that by seeing well, when you're not seeing so well, you're able to understand what's needed to be done.

Dr. Hal Rice ([05:14](#)):

And of course, a lot of these countries are investing in equipment in some of their major centers. So, it is a really important piece of work because as they establish their services with less high-tech equipment, and then they're seeing the good results, their own countries are investing in the infrastructure and the hospitals to then get the results that we're getting.

Rebecca Griffin (host) ([05:33](#)):

How you've been pivotal in showcasing the Gold Coast to a global audience through the many medical conferences you've organized over the years, what's been the impact from this, for the city and the local health industry?

Dr. Hal Rice ([05:44](#)):

Yeah, I think it's two-fold. One is of course, the benefit to the community from an economic point of view. So, when you're having people traveling and my colleague, Laetitia de Villiers and myself were the co-organizers of the World Federation Meeting in November 2015, where we had 1,200 physicians from all over the world. So literally from Asia or Africa, United States, Canada, and all through Europe descend on the Gold Coast. And it was an eyeopener for them because many of those physicians would look at the Gold Coast of being a touristic, as they called it, location. And they really couldn't see how we could have this amazing geography, beautiful beaches, beautiful hinterland, and also have this amazing health service here. So, they were quite jealous. And so, that was one thing, they really felt privileged to be here, and there was a big economic benefit to the city in having that.

Dr. Hal Rice ([06:37](#)):

And then, the second thing is it just raises the stakes and the reputation of our own services here, so what we're trying to do, and then that leads to then obviously, physicians visiting our service in the subsequent years since 2015. And that's been a big part of really our education program that we've able to instigate with our colleagues in Asia Pacific countries coming here. And I think having the reputation of having hosted that meeting is really a major thing for our city and for our service.

Rebecca Griffin (host) ([07:05](#)):

How you could say you're an ambassador of Australia's health industry, why are you so passionate about bringing international perspectives to Australia's health industry, and more specifically here to the Gold Coast?

Dr. Hal Rice ([07:17](#)):

I've seen over the years what that does as far as leading to investment and reputation, and also the progress of your local health industry. So, if you're just isolated and you're practicing in a bubble, it's very hard to then integrate the latest technologies. And ultimately, what we do is all about the results for the patients. We're not doing it for any other reason, but if we're part of the international community, both on a research point of view, on a teaching point of view and giving back, there is a really strong growth aspect to your own service. And ultimately, it's a reputation, as I said earlier, of the service nationally and internationally, which I think is important because it helps us attract and retain people to work in the service and has lots of flow and effects in research and development.



Dr. Hal Rice ([08:05](#)):

We have most of the multinational companies who want to be here. A lot of them have moved to the Gold Coast because they can see that what we're doing, particularly our plans in the Health and Knowledge Precinct really ticks a lot of boxes for them. And really, the vision that I've got for this area is that we can really establish a major biotechnology hub here at the Health and Knowledge Precinct as a legacy following the Commonwealth games. And it's an amazing facility. We got this great Greenfield site, which is adjacent to two major hospitals, GCUH, and Gold Coast Private Hospital, adjacent to an incredible university at Griffith University. And really that collaboration all on this precinct is just an opportunity too good to let pass. And really what we are hoping is what we do inspire as other colleagues in other fields of medicine, other areas of biotechnology, to really push things and develop this whole new industry, as far as creating new jobs, creating exciting new technologies, which ultimately is going to benefit patients here locally, but also internationally.

Rebecca Griffin (host) ([09:02](#)):

You were talking then about the many relationships that you have globally as a result of the work that you do, bringing people over for conferences and other international relationships. Has that been helpful during COVID to have those relationships established?

Dr. Hal Rice ([09:17](#)):

It really has because obviously, during COVID and not just in the health industry, in all areas of business and research and development, everyone's learned how to do everything online. So, online works really well, but I think it works best when you are dealing with people you already know, so people you already know. So if you think about talking to family members, it's fantastic. It's just an extension of being there. Talking to people you don't know is less familiar. So for us having a good reputation internationally and knowing many of the key players all over the world whenever we're giving talks or in conferences or speaking online, it really is just a really nice positive experience for us.

Rebecca Griffin (host) ([09:57](#)):

So we are opening up now from COVID as we enter this new phase of living with COVID, what opportunities does this present to the medical industry here?

Dr. Hal Rice ([10:06](#)):

I think it's massive opportunities. I keep coming back to the research and development side of things. When we look at pre-COVID, there were very set ways on how R and D in medicine and other areas of health technology was undertaken. There were key countries that were commonly used. Now, that's all been thrown up in the air, and everybody is now looking at trusted partners. And they really do look at Australia as a very honest broker. They know that doing research in Australia, the physicians are well-trained. The staff networks and the hospital systems are very mature and can be relied on. So, I think that's a really great opportunity for us here in Australia to not exploit this, but to really capitalize on our position globally and the respect that we have, but the onus is on us to then invest in the biotechnology space, attract huge amounts of talent locally. And this is just going to lead to an amazing industry locally for the years to come.

Rebecca Griffin (host) ([11:01](#)):

So you mentioned there about biotech, are there other types of industry company that you'd like to see co-locate here in the precinct?



Dr. Hal Rice ([11:09](#)):

I think there's some. In our space, to give an example, even though our space is the blood vessels in the brain, that flows into imaging technology. So, seeing what we're doing, navigation systems, artificial intelligence. So this runs in all areas of medicine and also, a huge other areas of technology. So, AI is a big thing. Robotics is one area we've really worked and pioneered in our space. And we're seeing that robotics is playing a huge part in all areas of medicine, whether it's orthopedic surgery, spinal surgery, or in our case, operating within patient's brains, and within the blood vessels. We're getting that enhanced precision that really accurate reproducible results, and robotics is in its infancy, but there's a real onus on us to grow that and also train people on how to use robotics for the future.

Speaker 1 ([12:00](#)):

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Speaker 1 ([12:14](#)):

How Lumina, where we are speaking from today is really leading the way in supporting health tech startups how do you think health tech entrepreneurs are doing locally?

Dr. Hal Rice ([12:24](#)):

I think a lot of the startups obviously don't have a lot of funding behind them. They've got great ideas. And one of the tragedies over the last 10, 20 years is a lot of these startups have then attracted funding internationally and then have taken their smart ideas abroad. And then, those ideas have then come back into Australia to be purchased. But Lumina offers an opportunity where these startup companies can start at a really small scale. They can get a small amount of space, which doesn't cost a huge upfront investment. And the other key thing is that they're in a space where they're next door to other like-minded people, so that crosspollination between like-minded people brought into the one area, really can lead to a huge flourishing industry. And really this startup, it is the thing that they need.

Rebecca Griffin (host) ([13:07](#)):

And what about the diversity here? Are you seeing quite a bit of diversity in the startups?

Dr. Hal Rice ([13:11](#)):

I am, and this is just in the health space, from cardiac technology to artificial intelligence, to all sorts of 3D printing is another big area, which is key to what we do. And I can see that then flowing across other areas of medicine and other areas of bio fabrication going forward.

Rebecca Griffin (host) ([13:30](#)):

How does 3D printing help in your work?

Dr. Hal Rice ([13:33](#)):

In our work, what we can do is we can 3D print the blood vessels in a patient's brain. Yeah.

Rebecca Griffin (host) ([13:37](#)):

You're kidding?

Dr. Hal Rice ([13:38](#)):



So it's amazing technology. So what that allows us to do is make a complete replication of that individual's blood vessels. So, this is in the setting where there's a problem with a blood vessel. So an aneurysm, for example, what that allows us to do is to train people on fixing that aneurysm. And you can do that multiple times. So, when you're treating a patient, you really have one shot to get it perfect. But on particularly difficult patients, it allows us to rehearse the treatment, so if we're worried. Okay, we are not really sure is treatment A, B or C going to be the best or device A, B, and C, we can go in and we can rehearse with device A and go, "Mm-mm, it's not so good. Let's try B. Oh, that's better. Let's try C. Oh, that's the best." And then that means when the patient's actually being treated, we're able to launch straight into the optimal treatment for them. And so, that's the first thing.

Dr. Hal Rice ([14:23](#)):

And then the second thing is obviously, then training people. So these models, we can reuse them and people who are learning how to treat aneurysms in this manner, we're able to train them on these actual, realistic, actual patient models.

Rebecca Griffin (host) ([14:35](#)):

How just in terms of the health tech startups, what sort of support do you see them needing to succeed?

Dr. Hal Rice ([14:41](#)):

Yeah. Look, there's a couple of things. One is a physical location, so I think that's where Lumina really excels in offering those spaces, which give them you an opportunity to actually have a footprint in a physical location. Of course, a lot of the startups are using online facilities, but a physical space is really important. And as I said earlier, that physical space where you can cross-pollinate with other like-minded people is also important.

Dr. Hal Rice ([15:06](#)):

But I think also, what I would hope is once the site earns its credentials and funding organizations and funders know that it has a really good reputation, they're going to be coming around looking, "Well, who's in Lumina at the moment? Who needs funding?" And it would be really excellent just to see these startups pitching their ideas to investors and people who want to assist them financially. And again, having everything in the one location is a key.

Rebecca Griffin (host) ([15:32](#)):

How do you see the diversity of health tech startups here and the support that they have comparing to what else is available across Australia?

Dr. Hal Rice ([15:41](#)):

Oh, look, I think there's some similar areas in Sydney and Melbourne. They have a longer legacy. They've been in place for a longer period of time. And of course, the way they do things there is based on old technology and old ways of doing things. So they have a lot of physical buildings, which are separated from each other, whereas I think the whole cohort region and the Health and Knowledge Precinct, we have the opportunity where these new buildings, new facilities, which are going to be delivered and built, offer an opportunity for great collaboration between different specialties.

Dr. Hal Rice ([16:12](#)):



And then, the other thing that's really unique is to have the university so close. So you have researchers, PhD students who want to get involved in projects. We also then have the clinical side of things with an amazing hospital, Gold Coast University Hospital, and also Gold Coast Private Hospital offering both public and private offerings, which can then integrate really well with startup. So, they can have their ideas. They can pitch to investors. They can grow into the space that's available here and really just stage things as their company grows. But then, they've also got excellent access to university, but also excellent access to clinical expertise.

Rebecca Griffin (host) ([16:48](#)):

For someone who runs a successful Australia-wide company, what advice would you have for startups?

Dr. Hal Rice ([16:56](#)):

I think, believe in your ideas because the best ideas are the unique ones. So, good ideas are not ones that somebody else has done. You're just replicating someone else's idea. So believe in your idea and really see it through, understand that there's going to be ups and downs. And there'll be times where you find you're doubting your idea, but if you believe passionately in it. And I think the second thing is have a really good team around you. Don't be an island, don't be isolated, have an amazing team that you work with, bounce ideas off. And then to that end, be prepared to then integrate with other teams and other like-minded people. And that's again, where this whole Lumina Precinct is going to excel.

Rebecca Griffin (host) ([17:35](#)):

Hal, just going back to the beginning of your career, why did you choose medicine?

Dr. Hal Rice ([17:39](#)):

Yeah, it's interesting. I was at school. I love playing sport, and one of my daughters laughs because she pulls out my report cards from grade eight and nine and goes, "Oh dad, you got a C in one of your subjects." So, it's quite funny. But look, I think as I went through school, grade 10, 11 and 12, I really started to think, "Seriously, what do I want to do?" And it was just one of those ideas that health looked good because you were helping people. It was an exciting area for me. I finished school in the mid-80s. So, there were just new things coming into health. And really since that time, over the last 40 years, we've had this explosion in technology, whether that's imaging technology with CT scanners, MRIs, operation technology, with minimally invasive, new medical treatments for cancer, for immunology. So it really has been an exciting journey. And really, I think the next 40 years is also going to be very exciting.

Rebecca Griffin (host) ([18:31](#)):

Did you ever foresee yourself working on human brains?

Dr. Hal Rice ([18:37](#)):

No. As someone who enjoyed sport, my main idea I thought was I'd be working in an orthopedic area and that's really when I was a junior doctor, I really focused on. I thought, "Oh." Orthopedic surgery really seemed to be something I was akin to. But over the passage of those junior years, it was really the emergence of MRI, which appealed to me because on one hand, you had the orthopedic surgery where you do an arthroscopy and look inside a patient's knee to see what the problem was. But suddenly, there was this technology in the 90s with MRI where you didn't have to open up the knee, and you could look inside the knee with a scan and see if there was a minuscule tear or a cruciate ligament tear. And that suddenly woke me up to, okay, there's something better than actually looking physically into the patient and doing something minimally invasive.



Dr. Hal Rice ([19:21](#)):

And so, that was my first step. And then obviously for the neurointervention that I do, I trained in New York and that was in its infancy at that time. But it was really exciting just to see how this benefited patients with aneurysms and strokes. And I really had a strong desire to bring it back to the Gold Coast.

Rebecca Griffin (host) ([19:38](#)):

And finally, what's next for Dr. Hal Rice? Will you be lining up for this year's Gold Coast Marathon?

Dr. Hal Rice ([19:43](#)):

It's a good question. I wish I was fit enough. Look, it's one of the things that attracted me to the Gold Coast. When I was a junior, I ran the junior division of the Gold Coast Marathon in, I think, 1983, 84 and 85. And I was fortunate enough to win that division three years in a row. So, prior to that time, I really didn't know much about the Gold Coast, having grown up in Brisbane. And that was really the beginning of it for me, as far as what a beautiful place. And I think a marathon's quite unique and certainly the Gold Coast Marathon covering 42 kilometers, you get to see this amazing coastal vista over those 42 kilometers. And you just realize how beautiful it is.

Dr. Hal Rice ([20:19](#)):

And it's one of those things that back in that time, we had a strong tourism industry, but really the last 20, 30 years, we're seeing this amazing health industry emerging locally in the Gold Coast. We got two amazing medical schools at Bond university and at Griffith University, amazing hospitals. And then all the other things, business entertainment, and it really has become a very holistic city somewhere. You don't need to go anywhere else for entertainment, for healthcare. For years, people used to have to travel to Sydney or Melbourne or Brisbane for their healthcare needs, and it's really pleasing to see that most people are able to be treated at a really high level locally here on the Gold Coast.

Rebecca Griffin (host) ([20:56](#)):

Hal, congratulations again on being named Gold Coast Australian of the year. And thank you very much for talking with me today. It's been an absolute pleasure.

Dr. Hal Rice ([21:03](#)):

No worries. It's been fun. Thank you.

Speaker 1 ([21:07](#)):

To learn more about Lumina and how we work with health tech startups, visit [luminagoldcoast.com.au](http://luminagoldcoast.com.au), and don't forget to sign up to receive your Lumina opportunities pack today.