00;00;00;00 - 00;00;27;24

Cale

Welcome to Grin + Bare It. A show that uncovers the remarkable stories from one of the most demanding industries in the world — Healthcare. From inventors and trailblazers to frontline workers and scientific experts, we explore the biggest challenges faced in healthcare and how these brilliant people have solved them. I'm your host, Cale Donovan, an award-winning entrepreneur and co-founder of Bare, one of Australia's largest end of life providers.

00;00;27;27 - 00;00;52;01

Cale

Today's episode is with the legendary Professor Ian Olver, one of Australia's leading authorities in oncology, bioethics and public health for over 40 years. Now, over his remarkable career, Ian has really shaped the field of oncology. From his early work as a practitioner, then through to his role as CEO of the Cancer Council Australia, where he really championed cancer prevention and research.

00;00;52;03 - 00;01;13;18

Cale

And now, via his focus in bioethics. His dedication to advancing cancer care has earned him a number of honours, including being a member of the Order of Australia. His influence on the field is profound, and his work continues to inspire new generations of healthcare professionals. In this episode, we're going to cover the transformative changes in oncology over the past few decades.

00;01;13;21 - 00;01;43;11

Cale

lan's transition from 1:1 patient care to influencing literally millions via public health information, and the ethical considerations that guide modern cancer treatment. Ian's truly an icon in cancer prevention, research and treatment, so prepare to be inspired by his insights and experience of the great professor Ian Olver. Enjoy the show. Thank you so much for joining and welcome to the show.

00;01;43;15 - 00;01;44;13

lan

Thank you very much.

00;01;44;18 - 00;01;49;20

Cale

Hey, I've got a tricky one for you to start. Do you believe cancer will be curable in future?

00;01;49;23 - 00;02;30;15

lan

Well, I think that, the thing is that cancer is a couple of hundred different diseases if you really look at it. And some of them will be cured. I mean, the ones that we will be able to get rid of are

things like cancer of the cervix, because we've got a vaccine and we've got a screening program. And even with file screening, we might be able to get rid of bowel cancer as we go along. And with the new immunotherapies, there are a number of cancers that were almost untreatable, like widespread melanoma that are now potentially curable. And so we're going to stepwise improve things. And yes, one day we might be able to eliminate cancer.

00;02;30;17 - 00;02;57;11

Cale

I want to touch on prevention versus treatment within that. I'll do that a little bit later in the show. Before we jump into that, along with some of your recent areas of focus and including around bioethics. I'd love to hear your journey. Why you got into medicine, then working in oncology as a clinician into research, then public health. And yeah, in Order of Australia. It's been an incredible career. Can you tell us about your path of how you got to where you are?

00;02;57;13 - 00;03;38;15

lan

You know, I wanted to do medicine, I guess. My father was a chemistry lecturer at the University of Melbourne. My mother had been a nurse, and that was a sort of background. I came from. And I did medicine. And as you go through medicine, you get interested in different things. And I went, I had to make a decision about specialisation later on.I was interested in oncology because at that time it was a sort of a cutting edge specialty. There were new things coming up all the time, but also I was attracted to the idea of relating to patients in the longer term, not just seeing them for an acute illness, but sort of being part of their lives over a long time.

00;03;38;15 - 00;05;01;28

lan

And that's what attracted me to it. And as well, some of my clinician mentors when I was a student and a resident and so on, you want to do the things you see them enjoying, and that's how I got into it. So I trained as a medical oncologist and was initially working in Melbourne, got a job at Peter MacCallum Cancer Institute, worked there for six years and then the head of oncology position came up in Adelaide. And so I moved to Adelaide and that gave me great scope because I was sort of developing medical oncology to fit in with surgery and radiotherapy that had been well established. And I also got involved with, you know, big projects like telemedicine to the Northern Territory. So supporting oncology in the Northern Territory. And not only did you do clinical medicine, but you also could do research because there were a lot of new drugs coming along that needed to be tested and you could teach. And so that combination in the public system was why I elected to, to be in the public system and essentially stay there. And along the way, I got interested in bioethics and actually formally eventually did a PhD in bioethics. So crossing disciplines gave me all sorts of scope for and interesting research and there are a lot of bioethical dilemmas that of course come up in treating patients with cancer.

00;05;01;29 - 00;05;20;11

It sounds like the most, the breadth of the type of medicine that you first discovered was the most interesting, and it's kind of kept you sustained throughout that, albeit, you know, moving into different areas of it. Would you still classify oncology as cutting edge? You said of the reference that, you, when you first entered the field?

00:05:20:18 - 00:06:07:09

lan

I think it is because there's been a big shift in oncology away from using, you know, drugs that are chemicals to using immunotherapy, which is really understanding basic questions like why wasn't the immune system in our bodies able to eliminate cancer? And when you discover what was stopping the immune cells doing that and you can do something about it. And that's late over the last few years to a whole lot of immunotherapy treatments that have been either added to chemotherapy or on their own. They've been highly effective in cancers that were otherwise untreatable. I mean, I gave the example of, of widespread melanoma. There were almost no five year survivals from that. Now there are and some of them probably will be cured.

00;06;07;09 - 00;06;59;02

lan

So the field has kept on moving. You know, I think it still is cutting edge. And even developments outside the field, like artificial intelligence, for example, when applied to what we need to be able to treat, treat patients in oncology, you know, that can be added to the armamentarium if you like. And we can be more effectively targeting our treatments to individual patients rather than looking at groups of patients, because we can use the power of digital platforms and artificial intelligence to have a look at someone's genome and find out what the targets are, what the changes in their genes, and therefore what treatment is likely to be effective in their particular type of cancer. So that's a big shift. That's only the last few years. So yes, I think it's still of the cutting edge of medicine.

00;06;59;06 - 00;07;18;03

Cale

Yeah. We're going to talk a lot about AI on the show. But before we do, there is a period in your career where you are the CEO of the Cancer Council. That's a, it's a big shift and you've spoken previously about moving into sort of public health information. When you reflect on that time, what was the biggest impact that you had there?

00;07;18;06 - 00;08;15;26

lan

I mean, clinical medicine's great, but we've got to know when it's time to do something else. And I've always said in the last bit of my career, I look for something else to do. And I got this amazing opportunity to go to Cancer Council Australia, which was all about public health and public information and advocacy to the government. So instead of treating patients one at a time, we'd go with various programs. We'd go and say, look, you know, you should do bowel screening and we get all the data and give it to the politicians and say, this is what will cost you. This is the benefit. And so there are all sorts of initiatives like that that you could have a role in.

And you could see, if you like, the benefit of a whole population of people. I was there in a very interesting era when bowel screening was introduced with the vaccine for cancer, the cervix was introduced and we had all sorts of changes that were making things better for people.

00;08;16;00 - 00;08;27;24

Cale

And was your, what was your thinking even from early in your career, of aiming to change things at a structural or macro level versus sort of patient to patient, or did that develop over, over your career?

00:08:27:28 - 00:09:04:17

lan

No, that, I think it developed over my career. I imagined I'd be a clinician treating cancer all the time. But, you know, you take opportunities that come. And that was a really interesting opportunity after I'd been, probably, practising oncology for over 20 years. And this was an exciting new era, and it was scary to jump into it. But really, I look back sort of six months later after I started and thought, well, you know, I'm, I'm having a lot of fun. I'm not missing it. And, and we could see some of the success of our advocacy program. So it was, it was very rewarding.

00:09:04:22 - 00:09:21:02

Cale

I'm interested in, you know, this concept of advocacy and maybe understanding some of the challenges that are inherent with educating the masses. What were the biggest challenges in doing that? And trying to build awareness and trying to change behaviours ultimately.

00;09;21;06 - 00;09;45;17

lan

Well, people are sort of wedded to their behaviour, and they get benefit for them, from their behaviour. And they often don't take kindly to, to change unless they can be given very good reasons for change. So, you know, a lot of the work in the early days was, in fact, with tobacco control. And there are various ways of controlling the tobacco, like putting bigger taxes on it.

00;09;45;17 - 00;10;29;24

lan

And we certainly lobbied very hard for that. You know, plain packaging was a big one, and graphic health warnings and all that sort of thing. And you did see the smoking, right go down. But when you start attacking one of the other carcinogens, which is alcohol, you get a lot more sort of pushback with that. You know, alcohol is a class one carcinogen. That means it is certainly causes cancer. So it doesn't mean that, you know, one drink will do it, but it does mean that, for example, you've got a strong family history of an alcohol related cancer. You can't do anything about your relatives but what you can do is about your lifestyle. So we needed people to know that alcohol was a class one carcinogen.

00:10:29:24 - 00:10:59:26

lan

One of the things they could do to reduce their risk is to reduce their alcohol consumption. Now, it probably had all sorts of other benefits as well, but our thing was about cancer. But that's a far more unpopular message, if you like, than the tobacco one. And tobacco was an all or none. There's really no benefit to smoking tobacco. But alcohol has become a very you know, it's a social lubricant if you like. So a lot of people gain a lot of benefit. If we can understand their motivations, we can deal with it.

00;11;00;02 - 00;11;38;13

Cale

Is that often how you are thinking about it from a public health setting? Which is impact—low to medium almost—the effort required is enormous. I'd like to classify that for alcohol, potentially. Yeah, I'm talking from a cancer setting specifically. I think the impact of not drinking alcohol is enormous broadly, versus, as you describe, cigarettes or tobacco, where the effort was still large, but the impact was, could have been, and is now incredibly successful, really widespread. Did you kind of trade off as you were going, like, well, we can only spend so much time and energy focusing on particular areas, so we're going to go where it's going to be most successful?

00:11:38:20 - 00:12:08:22

lan

It's a matter of timing, really, and there are certain political cycles where it was worth, you know, having a go at one thing and not another. And for example, when the GFC hit, we went down our list of, of what we were going to ask for and we thought, gee, how are we going to pay for that. And we came across regional cancer centres, which was something that we thought will be nice if there was more cancer available to rural people, a cancer treatment, priority therapy and so on.

00;12;08;24 - 00;12;35;23

lan

So that time we used to have a fairly regular meeting, and every six months on the side with the health minister, they always would listen to what we say because we were always very well prepared and we tried to align what we wanted with what they wanted. We went and pitched the idea, well, you're trying to put people into work, particularly in the rural areas, and they had a program of building gymnasiums, which would, you know, why don't you build regional cancer centres?

00;12;35;29 - 00;12;55;06

lan

And they took that up and allocated it. They found a future fund that was not being fully utilised. And so a whole lot of regional care centres were built around Australia. So it was a matter of, that was, an opportunistic timing. And sometimes you just get that and you run with what is likely to be successful at the time.

00;12;55;11 - 00;13;21;11

Cale

So very interesting that the intersection of timing, plus, you know, all of the initiatives and how you prioritise. Before we move on, I actually do want to have look, I do have a question on the cigarettes versus alcohol beyond it being seen as a social lubricant, is there any other reasons why we haven't had as much focus on the health impacts of alcohol versus cigarettes over the last 30 years?

00:13:21:13 - 00:14:18:25

lar

You know, they weren't known. I mean, cigarettes have been known forever to be associated with lung cancer, the bladder cancer, head and neck cancer, all sorts of cancers. And with alcohol, I mean, people recognized it could be associated with head neck cancer and maybe liver cancer, which are, you know, fairly uncommon. But it was when it was found to be associated with common cancers like breast cancer and bowel cancer that it became more public health importance, if you like. So we suddenly said to, pay for, well, you know, these other cancers that are involved. As I said, if you've got risk factors already, this is a modifiable risk factor that you can modify with your lifestyle. So the first thing we had to do was inform people that it increased the risk of more common cancers, and then talk about strategies they could perhaps use, or that we could use for discouraging people from at least drinking heavily anyway.

00;14;18;25 - 00;14;43;25

Cale

You referenced already this concept of, you know, prevention versus cure. And I think the prevention component has been known and it's been happening for many years. But I'm certainly observing individuals are starting to take increasingly more control of their health proactively, not just in relation to cancer, but I think broadly their, their overall health. Do you agree with that statement that individuals are taking more control?

00;14;43;27 - 00;15;12;15

lan

I think in certain areas that's quite true, that people are looking at their lifestyles and wanting to be healthier and live longer. The difficulty with public health campaigns is people don't want to be told what to do. So well, you've got to try and do is give them the information that, that allows them to make their own choices, rather than saying don't smoke or don't break out or whatever we say, well, this is what will happen and this is the benefit to you if you don't.

00;15;12;15 - 00;15;41;28

lan

If this applies to you, have a think about it. And I think those sort of thing. The other thing about prevention that's a bit more difficult is, you know, treatment. You can do a trial and you can tell people pretty much exactly how likely the treatment is to work is far more difficult to do that with preventive strategies, particularly diet, you can make general statements like, we'd all be better

eating a lot more fresh fruit and vegetables and not a lot of refined foods and sugars and so on, and red meat and so on.

00;15;41;28 - 00;16;16;04

lan

But once it comes down to specific food. There are extravagant claims and it's really not backed up by strong evidence. So now you might say people might say, oh, you know, eat pomegranates for your prostate cancer. Well, you know, they might be a little bit of evidence out there, but it's not very strong. So there's less ability to be very precise about what the benefits are. But in general terms, it's very clear fresh fruit and vegetables versus, for example, highly processed foods, which are where all the cancer propensity comes from.

00;16;16;09 - 00;16;38;22

Cale

Is there anything that sticks in your mind, of, it somehow became in vogue to do this, eat this, you know, change your life in this way, which was totally wrong in hindsight. You know, that pomegranate example is like, maybe there's a link back to this, not as weak, but do you reflect on something you just chuckle at, going, I can't believe we talked about that. Yeah. And that was potentially helpful for cancer.

00:16:39:00 - 00:17:06:03

lan

Look, there's a lot of the so-called unorthodox or alternative therapies that are like that one. During my time that was particularly prevalent was shark's cartilage. There was an idea that sharks didn't get cancer. And therefore, if you made a preparation of shark's cartilage, you'd be getting all the goodies that prevented it. So I used to talk to patients who had, and this stuff was awful, that time people used to make ice blocks of like, I tried and it really tasted like, you know, having raw fish, if you like.

00;17;06;03 - 00;18;08;21

Ian

Yeah, that it spread on the internet and the rest of it and all sorts of people were buying shark cartilage and having had absolutely no evidence at all. One of the older ones was apricot kernels. Now the problem with apricot kernels is they contain cyanide. So if you had them in you could potentially get cyanide poisoning. But you know in the US they used to sell apricot kernels over the Mexican border and people used to run over and buy them and eat them. And eventually they did a clinical trial, you know, of adding apricot kernels to, as a treatment to see and it made no difference at all. But you say people weren't motivated by science. They don't necessarily understand science. But if it looked good, not that it was easy to get. And if they could be in charge of their own treatments and it became attractive. So there's always a lot of those. And you only have to go on Google something and you'll find some absolutely wacky treatment that has no evidence for, at all.

00;18;08;23 - 00;18;32;12

Cale

It's sort of delving into potentially the ethical considerations here, and it's going way off the reservation instead of what we're going to talk about today. But is there some benefit psychologically to thinking that you're taking control to eating the, the food that actually does nothing, but at least you're taking steps towards well-being generally? Do you see anything there that's helpful?

00;18;32;17 - 00;19;10;16

lan

Oh, look. Absolutely. People taking control of their own bodies or their own treatment is really important. But the lesson there is not to encourage them to run off doing all these things where there's no evidence of success, but to present conventional treatments with the choices and the information so that they're taking control by having those. So it's the lesson, if you like, to the medical community of, of how we present our treatments to patients. So if they feel like, they've got a control over what's going on. And they're doing it jointly with the doctor instead of the doctor telling them what to do.

00:19:10:20 - 00:19:31:06

Cale

Wrap it in apricot or have some exotic food, maybe might be some of the, some of the other way to to have people take it on. I know there's many variants you referenced that earlier, but the, is there any sort of single greatest preventative measure when it comes to cancer in terms of what people can do to take care of themselves?

00;19;31;11 - 00;20;06;23

lan

Well, interestingly, even though the smoking rate has gone down quite remarkably, it's probably less than 10% of adults now. The single biggest thing would still be giving up smoking and getting rid of all the smoking related cancers. That's quite amazing. And even in those days. But then you've got the general diet and exercise seems to be very good for you in a number of ways, diet and the fresh fruit and vegetable thing, and of course all the sun protection messages as not getting sunburned and developing skin cancers, including the potentially fatal melanoma.

00;20;06;24 - 00;20;38;00

lan

And if there is screening like there is in breast cancer, the cervix by all means be screened because you might pick up changes that will develop into cancer that can be treated before it does, or very early cancer when it's still curable by surgery. So take advantage of the screening tests. And I think over the next few years we're going to see more cancer vaccines. But certainly, the HPV vaccine, this is one that everyone should be having. As I said, we could wipe out cancer of the cervix.

00;20;38;05 - 00;20;47;12

It's actually a great segue. I know you're at the cutting edge of sort of anti-cancer drug studies. Are there any that you're particularly excited about?

00;20;47;15 - 00;21;25;23

lan

Oh, look, I've been excited about the development of immunotherapies. And I think what we're beginning to see now, and it's interesting, the Covid epidemic, when we started sort of learning about how to use RNA vaccines, not doing those clinical trials anymore, but people are starting to look at preventive cancer vaccines, and that's very exciting. And that's just because we understand the immunotherapy of cancer. So we've got some immunotherapy treatments, and there may be some vaccines that will be part of those immunotherapy treatments. But they may also be vaccines that may be able to prevent getting cancer.

00;21;25;27 - 00;21;52;02

Cale

And do you, do you now, after your career, think about these studies in who can have the broadest impact i.e. like what type of cancers impact the biggest people by the biggest amount of people, should I say, or is it very specific? You're, you're sort of objectively, I just want to cure any cancer. I think that would be helpful. I'm wondering how you sort of prioritise your thinking around what would be most impactful.

00;21;52;04 - 00;22;15;02

lan

Well, well, up until a few years ago, there were more new drugs developed in the common cancers like breast cancer and so on than some of the rarer cancers. And that was a little bit unfair. What's changed the balance, though? And what will change the balance is in future we won't be treating a cancer by its tissue of origin, breast or bowel, or liver or whatever.

00;22;15;04 - 00;23;04;15

lan

We'll be treating it by what genetic changes it has and what, what targets it has and what immunotherapies they have. So once you, once you develop a target, maybe in a common cancer, you may well find it applies to other cancers that will have the same genetic changes or mutations that can be targeted by that therapy. So we're solving the problem that the rich get richer. And the common cancers were where all the new drugs came from. You could understand that because if you're in the commercial world, it was better to have a drug that treated a very common cancer. The very rare one. But with the new immunotherapies and with grabbing tumours together that have the same mutation, that will find that the treatment will be just as helpful in a common as perhaps in an uncommon cancer with the same genetic changes.

00;23;04;20 - 00;23;13;29

So you're confident that it will likely come from some of the better funded sort of cancers or research areas. It will just have broader application. That's what you think the future looks like?

00;23;13;29 - 00;23;34;24

lan

Or we're beginning to see that, and we're beginning to see trials that instead of saying we want to take a couple hundred people with breast cancer, they say, we want to take a couple of hundred people with this particular mutation. And it doesn't matter what the cancer is. So we're beginning to see those trials and that will translate into clinical practice.

00;23;34;28 - 00;23;59;13

Cale

Another area of interest for you is psycho oncology. And there are many listeners who would have had or supported or certainly know someone that has had cancer at some stage in their life. Can you tell us or synthesise your learnings on this area, and maybe any insights that you can share about both the power of doing it well and anything that's sort of upcoming and cutting edge?

00;23;59;17 - 00;24;16;20

lan

Well, if I, if I take your comment about the power of doing it well, over the years, all of the patients I've talked to a lot of patients were quite distressed about how their friends and relatives treated them. It was the whole spectrum. Some wanted to put them in a cotton wool and not let them do anything.

00;24;16;20 - 00;25;05;16

lan

I remember there was one old fellow that was furious. Every time he used to talk to me about going to the bowling club, and I'd always insist on current hearing his pulse to the grain. And when I got there with them and win the trophy, you say. But he just didn't want to be treated like that. So, you've got people that disappear from your life because they realise, well, you know, this happened to her, it could happen to me. I don't want to face that. And then there are the others that try to pretty much as normal, and take the cues as to what you want and support you in the way you want. So, it really is about discovering, you know, what you can do for something, not what you think you can do, but what the person actually wants. And you'll be able to support them. And sometimes, in fact, I'd almost say a lot of the time, they just want to be treated like you normally would.

00;25;05;20 - 00;25;41;06

Cale

Is there any, like, keys to unlocking that? Because I know even in our line of work, there's often this thin, invisible veil where, like, something is different or something is really difficult that, if I'm supporting you, I don't kind of know how to address it. If you're the one that's sort of experiencing, say, the death of a loved one or, you know, you've got cancer or you're being

diagnosed, you also may not want to talk about it, or you don't know how to articulate what you need sometimes. Is there ways and means you've seen that are really effective, that have everyone understanding what is appropriate and, you know, how to ideally live a normal life?

00;25;41;09 - 00;26;29;25

lan

You know, some people respond very well to having support groups. So and a group of relatives or a group of patients who get together and talk about their problems, oh, that happened to me. How did you solve it and so on. So that, that can be very helpful. Some people, it's the last thing on earth they want to do and they just want to be singly. I mean, oncology usually treats in teams these days. If you pick up the fact that someone is struggling a bit, you might get them support from a psychologist or from some social worker and so on to help them specifically address those issues. So there is no one solution that fits all, but there are things that can be done. It's a matter of being sensitive to what they need and providing the appropriate support.

00;26;29;27 - 00;26;57;22

Cale

On this podcast, it's important that people get application, and if you've got many, many years of experience, I think you know people would benefit from. There's a couple of key, sort of people, who listen to this show that I would love for you to give a single piece of advice to or, you know, a curated piece of advice to. The first is people who are aiming to influence public health policy. Do you have any words of advice to people in that sphere?

00;26;57;24 - 00;27;17;28

lan

Well, my advice would be to do your homework because a lot of people don't understand the science of things. It's very important that they don't give advice beyond where the evidence lies. And so they might think, oh, that sounds like a good idea. I'll go and tell everyone, but it might not be a good idea. So read a lot.

00;27;17;28 - 00;28;05;01

lan

And the other thing is go to sites that are legitimate, say, you know, cancer councils. Australia can-American Cancer Society and so on. There are legitimate sites that when they give information to people it'll be the, the latest information and it'll be accurate information. And so and of course there's a lot of evolving information as well. So you know, as we go on and study people over five years, you get a better idea. And then five years later when you've watched that over ten years. So things change all the time. So make sure you keep up with the changes. We saw that, for example, with mobile phones, all we know mobile phones will do this. And the other and some of the ten year studies now suggest that I probably don't. So I don't know.

00;28;05;01 - 00;28;28;22

lan

It's a face of equipment that everyone uses. So it's vital that you don't go off. And so don't do that. That's bad for you if you're not buying the evidence. So look at the difference between a legitimate site. Anyone can make a very fancy website up there, and shout loud enough to be an influencer, but you really got to do your homework and understand public health.

00;28;28;22 - 00;28;58;13

lan

I mean, one of the examples is when people talk about things that are causing cancer, carcinogens, it's not only whether they can cause cancer or not, it's the dose. If you are exposed to a minor amount, you're not going to get cancer if you're swimming in it and you probably will. And that difference is really important because there's a whole lot of things in the environment out there that could potentially cause cancer if people were exposed to them in sufficient quantities. But the reality is, most of them, they're not.

00;28;58;19 - 00;29;24;20

Cale

There's, there is a lot of noise. It's actually hard to discern nowadays of what is meaningful and material and correct, frankly. So that's, I find it to be a real challenge. The next group of people are those that brought young early in their career, and they're considering working in oncology as a field. This is an array of other options they have. Do you have any advice to those people that are kind of starting out?

00;29;24;25 - 00;29;45;05

lan

Yeah. Look I think there's plenty of opportunities, a lot more than when I went through. When you're in your early years, even in secondary school, of being able to do work experience, try and give some sort of work experience around the areas that you're interested in to see what it's actually like. And, and many early university courses do that.

00;29;45;11 - 00;30;08;12

lan

They'll have a placement in perhaps a radiation oncology unit or something for a few weeks just to say. And that's absolutely invaluable for either reinforcing that you're interested. But I think the key thing is that you want to do something that you, for some reason, you are really interested in, so that defining what excites you is, is the first step.

00;30;08;12 - 00;30;33;07

lan

And, and don't be put off by, by other people that might not like it because everyone's different. I mean, people say, saying to me, how do you deal with all these people with cancer? Well, the reality was, I knew I could so I did it, if you like, but, but you know, when I was going through, I remember going one time to when I was a medical student to a facility for mentally impaired babies.

00:30:33:07 - 00:30:53:14

lan

And I thought I could no longer work in that field. You know, that, something I just couldn't do. And yet, when I was interacting with the patients with cancer and talking to them and finding out about their families and all the rest of it, I thought, this is pride. I want to now take that journey with them. So find out what your natural inclination is and go with it.

00;30;53;19 - 00;31;12;02

lan

And, you know, don't be put off by other people saying "oh I couldn't do that". Well, if they can't do it, don't. The other thing I just want to say, in reference to the previous question, actually, is also don't fall for conspiracy theories. So a lot of people say we can't use conventional medicine because it's just drug companies making a lot of money.

00;31;12;04 - 00;31;48;11

lan

Look, that's just not true. I mean, yes, they might make a lot of money, but they make it out of drugs that are highly successful. And the whole testing process is to find that out. So, you know, you'd be better, you know, [with] eating shark's cartilage because the companies won't like it because they don't make any money. Well, I'm sorry but you'll not get better eating shark's cartilage. So be careful of conspiracy theories because that is a modern trend that if you want to oppose something or push something of your own, you create a conspiracy theory about why, you know, the other groups, the conventional group aren't doing the right thing.

00;31;48;14 - 00;32;28;05

Cale

I think that's a, it's a really interesting point. That idea of like, unconventional wisdom is becoming increasingly sexy because the people that promote it are often better at it, frankly. And then they're, they've got more modern techniques. They're more, it's more sort of attention grabbing. And so it is a really interesting time in medicine, which is there's enough good in it to make it hang around. It's overarching really probably improves people's focus on their wellbeing, but the kind of constant anti-establishment approach to it, which is often used for garnering attention, comes with its inherent downsides. For sure.

00;32;28;12 - 00;32;33;28

lan

You can't afford that sort of attitude when you're looking at how you should manage cancer.

00;32;34;01 - 00;32;58;28

Cale

The final group I'd love to get advice on in it that leans into some of the rest of our conversation is what about folks, you know, whether it's practitioners, researchers, other people that are aiming to apply artificial intelligence or really cutting edge technology more broadly to their work. Do you have any advice, maybe ethical, maybe practical for people who are looking to do that?

00;32;59;02 - 00;34;14;25

lan

Well, my major involved in this field is actually considering the ethics of it, because I'm still doing some work in that. And I mean, I think it's a matter of looking very carefully at what impact it will have on individual patients. So, what I, what I mean by that is that I think AI is going to be fantastic. And I also think that we're not going to stop the lives, this thing's here, and it's, it's proliferating very, very quickly across all sorts. I mean, you know, Google, some people, are using AI, you know, I discovered my video processing software now has AI that, that'll do all sorts of things it couldn't do before. So, so we've got to be careful. But, for example, there was a story a week or two ago about the training sets they used for the AI algorithms, and not telling people that their data was being used as a training set. Now, is that an ethical thing to do or not? I mean, was they identified data? They were just being given large lots of data, either off Facebook or from clinical trials. So, you've got to ask yourself, well, is that a reasonable thing to do? Or should we let people know that we'd like to use their data to train our AI tool?

00;34;14;26 - 00;34;48;12

lan

The other thing that's going to be interesting is what effect is AI going to have on the patient? So I don't think a patient at the moment wants an AI to give them advice. So the AI will be giving advice to the doctor, who will take it into account. And they're used to the doctor. The doctor can't possibly have in their head all the genetic changes that may determine not only the targets for treatment, but the changes in the pharmacology of the drug that will tell you that one of the metabolises more rapidly than the other.

00;34;48;12 - 00;35;12;13

lan

And so all of that stuff could be presented once the AI has very rapidly looked at all that data. So it'll be very helpful for personalised treatment. But probably the patient still wants the doctor to be informed and not feel that AI was doing it, you train the AI and then the AI actually sort of trying to solve this deep learning, these neural networks and things.

00;35;12;15 - 00;35;42;21

lan

So the question is, will a patient be happy with the fact that it can't ask an AI how it came to the decision? It can, say, I looked at all this data and this is what I got if you like, but AI can't tell you "Well, I'm biasing this towards that rather than this. I'm putting it in the context of your treatment." because that's not what is there to do. So I think people have got to be, understand of the boundaries of AI and be prepared to accept both its benefits and its downsides.

00;35;42;26 - 00;35;52;19

Cale

I mean, I've, I've unpacked so many questions for me. The first is what is your specific point of view on data and the use of data in patient care?

00;35;52;26 - 00;36;15;23

lan

My point of view is data is it's absolutely essential. It's essential for knowing when we have a new treatment, how well it works, and who to apply it to. And it's, it's essential for devising preventive strategies. So it's absolutely essential. And AI is going to be the most useful thing that will happen. But we can't just do it willy nilly.

00;36;15;23 - 00;37;04;05

lan

We've got to look at what impact does it has on the patient. And one of the examples just quickly, is that if an AI, for example, was analysing mammograms and it was getting far more positives than a human, reader, and probably you'll have both rather than one or the other. But the next question you've got to ask is, are all those positives going to benefit the patient or are we just going to see more positives that would never have worried the patient during their lifetime? And the AI can't make that decision. So people have got to understand the application of AI, but I think it's going to be a tremendous tool. We've just got to analyse its impact on people and how we're going to communicate what AI does, and have it accepted by people who I think will no doubt benefit from it.

00;37;04;09 - 00;37;33;08

Cale

So just to clarify, like from the ethical consideration of, hey, I've got my health data, you know, you would be a proponent for as long as you're telling the patient that we're going to anonymize that data, and this is how we anonymize it, but we're going to, we're going to input it and use it to hopefully push forward your cohort. You know, the type of person that you are, the makeup that you have. It'll push forward research and sort of ultimately treatment. You're all for sharing that, that information as broadly as possible.

00;37;33;13 - 00;37;50;06

lan

Oh yeah. It's nothing new. I mean informed consent before a patient makes a treatment decision has always been of the ethical standard. And that should still apply when we're using more obscure things like AI, they are more obscure to the patient anyway.

00;37;50;06 - 00;38;20;26

Cale

One of the topics that you sort of touched on there was this concept of trust. And so currently, the way you say it is, it needs to go through the agency of a clinician so they can contextualise some of the outputs. The synthesis of Al. Do you have a view on the time frame of when that trust will be built enough between patient and sort of Al interface, where potentially a doctor, a nurse, yeah, other people don't actually need to be involved in that interaction?

00;38;20;29 - 00;38;56;07

lan

It's hard to say, except that I think it's going to be faster than we think, because AI's adoption will be faster than we think. So yes, the initial trust is with the doctor, and the doctor is the one that's going to help the patient trust the tools that he's using, all of which is AI. So I think if we can get clinicians to be good at explaining to patients where the data's all coming from and what is being used for that because they trust the doctor, that will mean that they'll trust the use of AI.

00;38;56;10 - 00;39;45;07

Cale

It's somewhat interesting, though, in a world where sort of in the very short term, you could see AI as a really productive tool for doctors to have better insights, better information, faster, to continue to do their role at a really high level. But ultimately there becomes this question of are they actually competing in some way? And so they're, as you described it, it feels like there's a little bit of friction in the medium term of AI and the conduit between patient and AI. If I recommend this a lot and develop a patient's comfortability with this as the method of diagnosis and treatment and other things, then I may become redundant out of that process. Do you see that as interesting sort of or difficult challenge to overcome from a doctor's perspective?

00;39;45;13 - 00;40;16;16

lan

Well, I recognize the challenge, but I think what will actually happen is the doctors may do different things. So for example, they may move more into the supportive care of the patient, the things we talked about, the psychological support of the patient, and not as much in determining, you know, what treatment is individualised to that patient, because all that data is coming out of feeding the AI, all the patient data and all the guidelines and things like that, and having them formulate that.

00;40;16;19 - 00;40;38;01

lan

So it may be an area that has been more difficult to service, it becomes the doctor's domain. And that's that relationship with the patient that will make the whole treatment experience better. So yes, all the different things and we've seen that. We see that all the time. One thing gives way to the other. You know, the petrol engines give way to electric cars.

00;40;38;01 - 00;41;20;29

lan

Like the horse and cart to the motor engine. So it means you might have to change what you do, but they're still very useful. So the doctor patient relationship is a complex relationship. But it's very much part of the healing relationship. You can teach a monkey how to prescribe drugs, but you can't teach a monkey necessarily to sort of form a relationship of trust with the patient. That's part of the healing experience. And so I think they'll still be a role for doctors in that way, well into the future. And it will benefit the patient that the doctor is relieved to some of the more automatic tasks and can concentrate on those. So that's how I hope the future unfolds.

00:41:21:04 - 00:42:23:24

Cale

Okay, it's a really interesting point generally for people in healthcare, which is that, you know, the term, say bedside manner or, you know, the actual surrounding support beyond the practical sort of treatment becomes increasingly important. I think it actually has broad application beyond healthcare. Right? Which is the relationships, the sort of the interaction that you have as a human is actually, the increasingly, the more valuable part as opposed to the straight up sort of processing of information. So interesting to watch that space. One other ethical question I'd love to pose to you is this concept of people knowing increasingly more about their body and that giving rise to additional stress, potentially, or an awareness that is unhelpful for them, like where do you sit on that spectrum? There's other people that are now doing full body scans. Obviously, you've got diagnosis and other things coming out via AI tooling. I'm really interested to hear how you think about that both now and in the future of people knowing everything effectively about what's going on in their body.

00;42;23;27 - 00;43;07;18

lan

Well, I'm all in favour of people knowing as much as they want to and a lot of people also, some people don't want it. They say, "Look, Don't tell me all about this. You've got it and I trust you." And that's interesting on the other end of the spectrum. So I'll question every single thing you do. So the answer is let people have the information that they need. But I have to learn how to use it. So you know, I did six years of medicine and then had decades of experience. You can't expect a patient diagnosed just with cancer to be able to catch up all that time. So I give them the information, but give them the interpretation as well, and eventually their own experience.

00;43;07;18 - 00;43;49;06

lan

And we're increasingly incorporating the patient experience into our formulation of how to treat people. So I'm all in favour of that. But it can't just happen with here's all the information, do with it what you will. Here's all the information. I'm going to help you sort it out. And you're important. So what is important to you? You know which of these side effects isn't bothering you and which is. It's not my choice. It's yours. So what am I— how am I going to formulate the treatment? So I think we've got to teach people how to use the information like that. And slowly they'll get up to speed. And then I'll add to it the one thing we can't and that's their own experience.

00;43;49;09 - 00;43;56;26

Cale

That's really thoughtful. You have accomplished a lot of your career, and I would love to hear what gets you up in the morning nowadays. What gets you excited?

00;43;56;29 - 00;44;20;04

lan

All the same things that always have, I suppose. New things. I mean, one of the reasons I've diversified a bit and done a bit of ethics and done medicine, done a bit of theology and so on, I

get interested in things and pursue them. I'm still interested in things. Now, some people might say your career might have been quite different if you'd stuck to one area and become a, you know, an absolute expert in one area.

00;44;20;04 - 00;44;39;20

lan

But I couldn't probably couldn't have done that. I get bored easily. And so, I still get up in the morning. And then I read something that someone's made a breakthrough and it doesn't even have to be in medicine. I love all the breakthroughs that are happening in astronomy and so on, and I love writing about it. That will keep getting me up in the morning.

00;44;39;27 - 00;44;46;21

Cale

Hey, your, let's project 20 years forward. You're writing a eulogy. What are you writing? How do you want to be remembered?

00;44;46;25 - 00;45;14;21

lan

Well, the thing I learned most from my patients is that I live my life without regret. In other words, I took the opportunities as they came and they were fantastic. And I feel truly blessed in having had the opportunities that I've had. But that's the point. I don't have any regrets for the things that I could have done that I left undone. And that's the, why, I want to live the life. And then move on and discover what's next.

00;45;14;24 - 00;45;36;12

Cale

Final question there. The podcast, it's called Grin + Bare It, and it's called that because it's often the piece of advice given to people who, you know, struck with a particular challenge, which is kind of get on with it. What's a single piece of advice that you would provide to people listening who are experiencing some adversity in their life?

00;45;36;14 - 00;46;16;25

lan

Look, I think you've got to find things that will get you out of bed in the morning, not focus as much on the bad things that are happening, but find those good things, the good people around us, usually in relationships, the good people that are still around you and so on, and focus on that rather than the bad things that will happen. It doesn't make the bad things go away. It doesn't make it necessarily any easier, but it does counter it and it gives you a new path forward. So I can't think of anyone that's ever said to me, there's absolutely nothing I've got to live for. Well, concentrate on the things that give you joy.

00;46;17;00 - 00;46;23;01

Amazing and words to live by. Thank you so much for your talk and looking forward to everything you do from beyond this point.

00;46;23;06 - 00;46;29;16 lan Thank you. My pleasure.

00;46;29;18 - 00;47;09;20

Cale

Thank you so much for listening to this week's episode. Hope you enjoyed it. As always, I would love your feedback, questions, or any suggestions that you have for someone that I should be speaking to next as our guest, you can find me on LinkedIn, or you can find the Grin + Bare It podcast on TikTok and Instagram. Now the best way to support this show, if you did like it, is leave your feedback, subscribe or wherever you get your podcasts, or simply share it with your friends and colleagues. Thank you so much again. See you next time on Grin + Bare It.