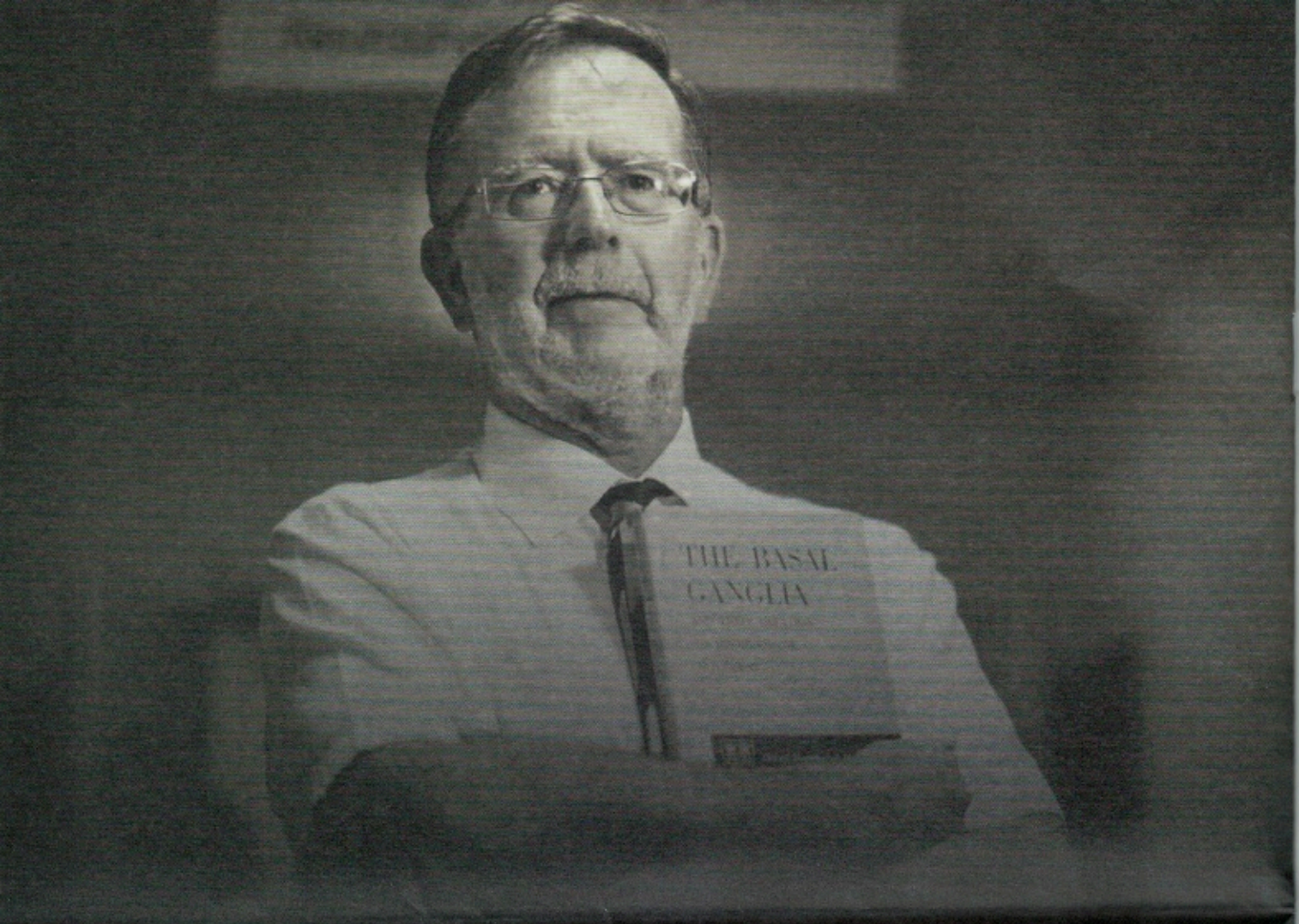

A chat with our Chief Medical Advisor

Celebrating 150 Issues

Many of our long-time supporters may remember our early editions of *Headlines* (and perhaps have views on how far we've come). To celebrate our 150th edition, we spoke with Dr Neil Anderson, the Foundation's Chief Medical Advisor, about the progress made in understanding and treating brain conditions, as well as the challenges that remain.

The Neurological Foundation's Chief Medical Advisor is a prestigious position. Dr Neil Anderson is only the third person to fill the role, following Mr Philip Wrightson and Dr Jon Simcock. Neil has been a consultant neurologist at Auckland City Hospital since 1987.

After completing his neurology training, he became the first-ever recipient of the Neurological Foundation's VJ Chapman Fellowship and was a Fellow in the Neurology Department at the Memorial Sloan Kettering Cancer Center in New York.

Neil has a deep interest in history, having previously been president of the Auckland Medical History Society. As you'll read here, he's also vitally interested in the future.

As a neurologist, what major developments have you seen since *Headlines* was first published?

One of the obvious ones is stroke. For instance, back in 1990, a neurologist had very little to do with patients who'd had a stroke. They used to be transported into hospital – rather slowly – and they were looked after by general physicians and geriatricians. Neurologists were hardly ever involved. The only stroke patients we looked after were very young or there was something unusual. Most of them didn't even have a brain scan.

From about 1990 onwards, stroke care became organised. Dedicated stroke units developed overseas, and we established the stroke unit at Auckland Hospital during the later part of the 1990s. And then treatment became available. First, it was intravenous thrombolysis treatment which improved outcomes, and more recently, clot retrieval (when strokes are due to a blocked artery). This has had a much more striking outcome.

People come to hospital unable to speak and paralysed down one side of the body, and after the procedure they're completely normal. It doesn't always happen that well, but it's not infrequently that we see an outcome like that. So, it is miraculous.

Stroke is one area of huge improvement. Can you think of others?

Multiple sclerosis would be another. Most people with multiple sclerosis have relapses. Prior to 1990, the only treatment offered was a short course of steroids to speed up the rate of recovery from an attack, but there was nothing available to prevent attacks from occurring and to slow the process down. But now there's a whole raft of different medications that are very effective in preventing the relapses from occurring and slowing or delaying the progressive phase. So that's made a huge difference.

Does anything else come to mind?

We can treat autoimmune diseases, such as autoimmune encephalitis, which was fatal without treatment. It's an uncommon disorder that often affects very young people and we used to have no idea what the cause was, but we've since found it is due to antibodies. Now doctors can make a diagnosis quickly, then treat people with medication that reduces the production of the antibodies. Before, the patients almost invariably either died or were left severely disabled. Now, they usually make a complete, or almost complete, recovery.

Migraine featured in our first *Headlines*. What do we understand better in 2026, and how have treatments improved?

We understand the chemical changes that are occurring in migraine, which has led to new treatments. New drugs – CGRP blockers or antagonists – are now available in New Zealand. Unfortunately, they're not funded, and they are quite expensive. The other thing that's changed in the last 30 years or so is injecting Botox into the scalp. It's a little bit mysterious how that helps, but it does. Again, that's unfunded, so it's only available for people who can pay for those treatments.

How does it feel knowing a migraine treatment is available but your patient might not be able to access it?

It's a bit unfair, isn't it? I work in the public hospital, so I've got no patients on these drugs because they can't afford it. So, it is frustrating and disappointing. On the other hand, those medications don't totally prevent migraines, so it's not as if they are miraculous cures.

Do you think public understanding and empathy for people with migraine has improved over the past 35 years?

There's still quite a bit of prejudice. People say, "He or she's not at work again because they've got another migraine." I don't know whether that's really changed.

We're hearing a lot about head injuries, particularly in sports. As a neurologist, what is your view on contact sports, for example?

Repeated head injury is bad in the long term. Realistically, body contact sports will not be banned, but I think the right approach is to try to minimise head injuries. As far as I know, most sporting bodies have become aware of this and are doing their best to reduce the risk of head injuries – for instance, by teaching the correct way of tackling. And, of course, there's still a lot of research going into that area. A lot of it is, in fact, funded by the Neurological Foundation.

Early years: Neil outside Memorial Sloan Kettering Cancer Center after an overnight snowstorm.

Epilepsy was one of the diseases mentioned in issue one of *Headlines*. What progress has been made since then?

New medications have become available in the last 35 years. They're not necessarily more effective, but they are usually better tolerated, and they give more treatment options. Philip Wrightson was one of the pioneers in surgical treatment for epilepsy in New Zealand, and that treatment continues. The methods of assessing patients are better now. They come into hospital for a week or more to observe seizures while they're recorded with an EEG and video. Doctors can do special brain scans to find out what part of the brain the seizures are coming from. That's been an advance.

What about Huntington's disease?

That usually presents in adult life with dementia and movement disorder. Before 1990, we knew Huntington's must be a genetic thing because it ran in families. Since then, the gene that causes it has been identified, which was a major scientific breakthrough. But there's still a long way to go in terms of treatment.

What about Parkinson's disease?

That depends on how you look at it. It's disappointing in a way, because the big breakthrough in treatment of Parkinson's disease came in the 1960s when it was found that the part of the brain that produces dopamine degenerates. That led to the introduction of treatment with levodopa in the 1960s. Since then new drugs and treatments have appeared, but none of them are as effective as levodopa. One new treatment is deep brain stimulation, but that's really for people who are in more advanced stages of Parkinson's disease. The other advance is apomorphine infusion, also given in the later stages. There's still a huge amount of research that needs to be done in Parkinson's disease. Interestingly, the only thing that probably slows the underlying progress of Parkinson's disease is exercise.

Predicting stroke recovery?

The focus has shifted somewhat towards acute treatment and prevention. Having said that, many people require physiotherapy and rehabilitation after a stroke. The Foundation has funded some very good research in the last 10 years, and Cathy Stinear's research group has done really important work in developing tests to predict which patients are going to recover with physiotherapy.

Scanning later issues of *Headlines*, some themes emerged around food and nutrition. Can health messaging be a little faddish?

There's evidence for all sorts of foods to avoid or to eat. My advice is to have a healthy diet. Salmon and other fish are obviously good. If people want to have a steak, there's no reason why you can't have one – but it probably wouldn't be good for your health to have a steak every night. So, my advice is to just have a healthy diet.

Back in 1990, life expectancy was much shorter. People were dying from heart attacks and strokes. So, I guess people weren't so worried about health messaging. There's so much contradictory stuff – I think it's just a matter of being sensible.

Neil has witnessed significant advances in his time as a neurologist. He is pictured here with our Head of Research Dr Sarah Schonberger.

This bold prediction was in *Headlines*, July, 1993: "Within a decade, neurological researchers expect to identify the gene underlying most diseases and disorders of the brain." Did that happen?

I think that's probably largely true. The abnormal gene has been found in a lot of conditions that we knew were hereditary. That's been a major breakthrough in terms of diagnosis, but in many genetic conditions this is yet to be translated into useful therapy.

Finally – what are your hopes for the future?

That is a big question. If you look back to 1990, you wouldn't have expected to be able to treat somebody who's come to hospital paralysed down one side, unable to speak, and return them to normal. So there's no reason to think that something can't be done to help people with neurodegenerative diseases.

I guess the big issue is we don't really have a good handle on neurodegenerative diseases like Alzheimer's and motor neuron disease in terms of treatment or prevention. And there's been relatively little progress for some types of brain tumour, in terms of effective treatment. The big hope is that there'll be progress in identifying people at risk of neurological disease, preventing it, and slowing progress if it does develop. I also hope there'll be further improvement in treatment for things like stroke and epilepsy. But if we can prevent neurological diseases, that is the way to go.

Neil shares revealing insights and fascinating answers to many more questions in an engaging interview – a special recording to mark 150 issues of Headlines. Make a cuppa, scan this QR code and settle down to listen, or go to https://bit.ly/brilliant-neurologist-nz