

# A leader in acute stroke care

Associate Professor Bruce Campbell picked neurology over haematology because it seemed a “riskier” thing to do

As he neared the completion of his Bachelor of Medical Science at the University of Melbourne in 1999, Bruce Campbell had his sights set on being a research scientist.

At the time, he was focused on research into dementia, which may have been a clue as to his future direction.

“I had some very good mentors who suggested that I become a research scientist via medicine, because it would give me a clinical perspective to frame research questions,” Associate Professor Campbell tells the *MJA*.

It was good advice, as it turned out.

Today, at 40, Associate Professor Campbell is a consultant neurologist and Head of Hyperacute Stroke at the Royal Melbourne Hospital and a principal research fellow at the University of Melbourne’s Melbourne Brain Centre. He is chair of the Clinical Council of the Stroke Foundation and has just completed co-chairing the 2017 update of the NHMRC-approved Australian stroke guidelines, to be launched by the federal Health Minister on 4 September 2017. He has been an inaugural member of the Victorian stroke telemedicine project and is the co-ordinator of the National Brain School training program for neurologists in training. He is a member of the World Stroke Organization Guidelines Committee and Young Stroke Professionals Committee.

Two years ago, a trial of which he was co-principal investigator and medical co-ordinator was published in the *New England Journal of Medicine* and, with four other international trials, quietly caused a revolution in the world of acute stroke care. The EXTEND-IA trial was a multi-centre randomised trial of endovascular clot retrieval following standard intravenous thrombolysis in acute ischemic stroke, and has been described as “transformative”.

Today his research is focused on getting blocked brain arteries open even faster, and he is part of a team

creating Australia’s first “mobile stroke unit”, which will be sent out alongside a standard ambulance crew on 000 calls for suspected stroke cases.

“We do a CT scan of a patient’s brain outside their front door, and administer clot-busting drugs right there,” he says. “Every minute counts, because brain cells are dying at an alarming rate.”

And to think, in the last 2 weeks of his medical training, Associate Professor Campbell almost decided to become a haematologist.

“I was pretty comfortable with haematology,” he says. “I liked it, I understood it. But neurology seemed like the higher risk option, the unknown frontier, I guess, so I decided to try it.

“I knew that if I didn’t like it I could always step back from it and head in another direction.”

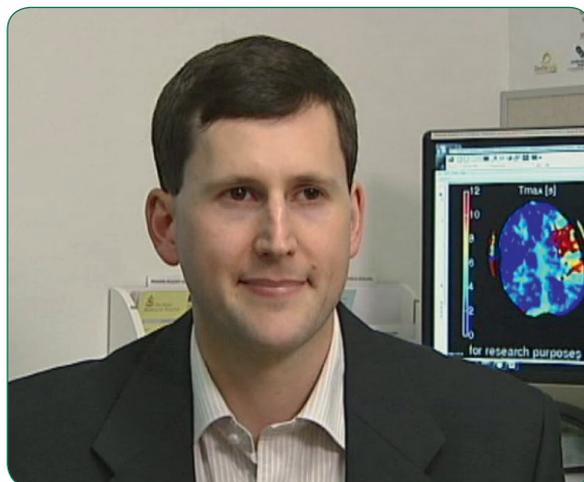
Towards the end of his advanced training in neurology he found himself leaning towards stroke as a focus point.

**“Every minute counts, because brain cells are dying at an alarming rate”**

“Stroke is really common – one in six of us will have one – and a major cause of disability in Australia. It’s tremendously exciting that we now have effective treatments to prevent that disability but there’s a lot more work to do. Treatments are rapidly evolving. It’s an exciting field,” Associate Professor Campbell says.

The week starting 4 September is National Stroke Week in Australia. Thousands of Stroke Week Activities will take place in communities across the country including information stalls, health checks and fundraising for the Stroke Foundation.

According to the Stroke Foundation’s website, in 2017 there will be almost 56 000 new or recurrent strokes – that’s one every 9 minutes. Sixty-five percent of stroke survivors suffer a disability



Associate Professor Bruce Campbell

which impedes their ability to carry out daily living activities unassisted. The financial cost of stroke in Australia is estimated to be \$5 billion each year, but in 2015, funding for stroke research through the National Health and Medical Research Council represented just 4.1% of the total investment in medical research.

This year the Stroke Foundation is concentrating its efforts on ensuring that every Australian

household has someone who knows the “FAST” signs of stroke:

- **Face:** Check their face. Has their mouth drooped?
- **Arms:** Can they lift both arms?
- **Speech:** Is their speech slurred? Do they understand you?
- **Time:** Time is critical. If you see any of these symptoms, act FAST and call 000.

“Every second counts,” Associate Professor Campbell says. “We need patients and their families to recognise stroke and act immediately to give these effective treatments the best chance of reducing disability.”

The Stroke Foundation can be found online at <https://strokefoundation.org.au/>

**Cate Swannell**

doi: 10.5694/mja17.0409C1