

Stroke detection helmet debuting in Hunter trial

The Hunter has become the first international trial site for a portable headpiece that can diagnose stroke using microwave imaging

With 16,000 acute strokes occurring each year in NSW, emergency responders are under constant time pressure when it comes to administering life-saving therapies. Every minute counts.

Now, a revolutionary diagnostic tool called the Stroke Finder helmet is being trialled in the Hunter for the first time.

It's light, compact and completely portable, enabling paramedics to use on scene. Above all it's fast, performing multiple brain measurements in just 80 seconds.

HMRI and Hunter New England Health were a natural choice as collaborators with Swedish-based developer Medfield Diagnostics because of their world-class expertise in stroke care, rehabilitation and research.

Two units have been bought for trialling in John Hunter Hospital, while Phase 2 will see them deployed in ambulances.

Professor Mikael Persson, a Biomedical Engineering specialist from Chalmers University of

**Above: Stroke Finder helmet is compact and patient-friendly.
Below: Professor Mikael Persson.**



Technology in Gothenburg, has spent the past month training clinicians to use the Stroke Finder.

As chief designer, he conceived the technology 20 years ago while studying mobile telephone usage.

"In our computer modelling we simulated how phone microwaves passed through the brain – and we could also see how brain matter affected the waves as they passed through," Professor Persson said.

"We then simulated a brain bleed in the model and could directly see an effect on the wave propagation."



searcher autumn 2017

... contents

- P2: Director's message
- P2: HMRI Awards
- P3: Auspice trial
- P3: Asthma drug
- P4: Hot off the press
- P4: Community
- P5: Make a difference
- P6: Events news

Early prototypes looked like bicycle helmets with antennas and cables protruding, whereas the latest incarnation has few moving parts and concealed cables.

HMRI Sydney Foundation helped secure community funding for the project, including a significant donation from businessman and clinician Dr Jerry Schwartz through The Schwartz Foundation for the acute care (phase 1) pilot study.

The Foundation is now targeting funding for the rehabilitation phase. See hmri.org.au/stroke-finder.

In partnership with our Community