



MEDIA STORY

PROGRAM:
ADVANCED HUMAN
IMAGING

INFRASTRUCTURE/
EXPERTISE:
3T MRI

LEAD ORGANISATION:



SUPPORTING NIF PARTNERS:



Australia's largest imaging project enables better epilepsy diagnosis and treatment

The Australian Epilepsy Project data aids current treatment decisions and future research by predicting epilepsy health outcomes

Challenge

In 2017, Australians of working age with epilepsy were predicted to experience over 14,000 excess deaths, more than 78,000 years of life lost, and over 146,000 productivity-adjusted life years lost.

With nearly 250,000 Australians living with epilepsy, predicting outcomes post-seizure is challenging due to the unique nature of each brain. Finding the right treatment can take up to 15 years.

Solution

The Australian Epilepsy Project (AEP) is conducting the largest imaging project in Australia, underpinned by NIF's national network.

AEP uses advanced MRI methods to study brain network changes, combined with cognitive and genetic data.

As Australia's largest cohort imaging study, AEP's national-scale population-based data sets are crucial for developing accurate predictive tools and personalised treatments.

AEP's goal is to have "every Australian living with epilepsy to be free from seizures" and, with NIF's support, MRFF has granted the project \$30 million in funding.

AEP leverages NIF's advanced imaging network:

→ NIF's national footprint enables AEP to capture data at scale: 4,000 patients are able to contribute their data across four NIF sites, with more sites planned.

→ NIF directly supports AEP's lead site at The Florey, contributing four NIF fellows, and providing substantial expertise and assistance across NIF's network.

Impact

Neurologists are already using AEP's reports, generated using NIF-captured data, for better treatment decisions.

Amanda, an AEP Lived Experience Ambassador, had seizures from age 23. Advanced MRI testing revealed scar tissue from childhood encephalitis, leading to successful surgical treatment.

Now, 12 years later, Amanda has regained her quality of life. AEP's sophisticated reports are guiding treatments like surgery, which significantly improves productivity and quality of life.

"We are bringing together leading international researchers to develop a highly original class of radiopharmaceuticals that will provide new treatment prospects for cancer patients."

– PICTURED BELOW: AEP'S LIVED EXPERIENCE AMBASSADOR AND PARTICIPANT LEAD, AMANDA ANDERSON

