



Left to right: Noisy Guts co-founders Dr Josephine Muir, Dr Mary Webberley and Professor Barry Marshall with the Noisy Guts acoustic belt. Photo credit: The University of Western Australia ©iananderick

# Western Australian medical innovation set to transform global health

## A local research team is on a mission to transform global health with an ingenious medical innovation

The Noisy Guts project is the brainchild of local Western Australian and Nobel Laureate, Professor Barry Marshall.

Professor Marshall and Noisy Guts co-founders Dr Josephine Muir and Dr Mary Webberley are targeting gut disorders and diseases with a clever new device.

With their research demonstrating a strong correlation between gut noises and gut disorders, the team has developed an acoustic

belt that listens, records and analyses gut noises.

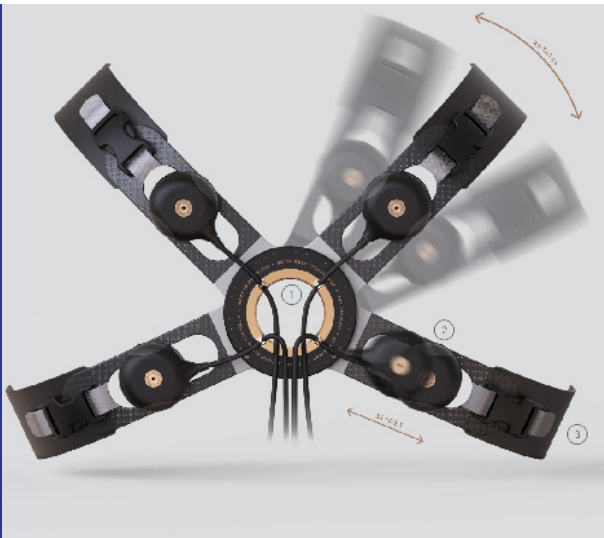
Using proven acoustic sensing technology — initially designed to pick up the sounds of termites — the Noisy Guts acoustic belt records gut noises over time so doctors can accurately diagnose and monitor gut disorders.

Clinical data has shown that Noisy Guts' acoustic belt, in conjunction with symptom data, diagnoses Irritable Bowel Syndrome (IBS) with over 90% accuracy.

A chronic and debilitating gut disorder, IBS affects 11% of the world's population.

"Irritable Bowel Syndrome affects up to one in 5 Australians," Professor Marshall said.





The Noisy Guts team is targeting gut disorders and diseases with a clever new device. Photo credit: The University of Western Australia



“Through this project, developed at the Marshall Centre at The University of Western Australia (UWA), we hope to commercialise technology to aid fast detection of gut disorders and empower patients to identify triggers that cause symptom flare-ups.”

The Noisy Guts acoustic belt works similarly to an electrocardiogram monitor for the heart and is supported by a smartphone app that records symptoms.

The belt capitalises on today’s trend of wearable technology, providing a safe and non-invasive screening, monitoring and diagnostic tool.

Current methods for diagnosing IBS typically include invasive tests, such as a colonoscopy, to exclude other diseases. These tests are costly, uncomfortable and carry risks.

The Noisy Guts acoustic belt will provide doctors with a new, accurate and non-invasive approach to IBS diagnosis. A key benefit will be reducing the time delay in diagnosing patients with chronic gut health conditions.

## Award-winning innovation

The Noisy Guts project was developed through research at UWA.

In the project’s early stages the technology took out a top honour in the 2018 Western Australian Innovator of the Year Awards.

In July 2020, the Noisy Guts project was selected for the inaugural Nature Spinoff Prize.

The Spinoff prize was established by Nature Research, in partnership with leading science and technology company Merck, to showcase and celebrate global excellence in the commercialisation of research through the creation of spinoff companies.

The Noisy Guts project was selected by award judges as one of 32 promising companies this year, and was featured in the world’s leading science journal, Nature.

In April 2020, Noisy Guts closed its \$1.5 million seed round matched by \$1 million in Australian government funding from the Biomedical Translation Bridge program managed by MTPConnect.

In September 2020, Noisy Guts was a participant in a London Tech Week virtual mission, as part of a Western Australian cohort supported by the state government. London Tech Week is the largest technology festival in Europe and brings together tech companies from around the world with potential clients and investors.

Dr Muir said it was a remarkable achievement to create a device that could change the way patients are treated.

“I am immensely proud to showcase WA innovation that has the potential to improve the quality of life of those that suffer from chronic gut health issues,” Dr Muir said.