

# Research Matters

Your global research round-up



Dear Friend,

Welcome to *Research Matters*, your update of medical research breakthroughs and information delivered straight to your inbox.

**This is your second edition.** You can view previous editions by [clicking here](#).

In this edition, you'll find:

- bacteria capable of eating tumours from the inside out.
- how to avoid misinformation and disinformation.
- ways to reduce microplastics in your body in just one week.
- how we're harnessing the power of nature to fight disease.
- an important heart health study that could help you and your loved ones.

I hope you find this information interesting and useful!

You're receiving this email because you signed up via our website. Thank you for choosing to stay up to date with the latest global research.

Happy reading.



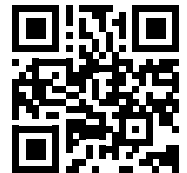
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# CASCADE-MI: HEART HEALTH STUDY

Credit: © WEST AUSTRALIAN NEWSPAPERS LIMITED



## What if you could improve your family's heart health by simply sharing your experiences?

Do you have a parent or sibling who has had a heart attack before the age of 55? Are you aged between 30 and 55 and have no history of cardiovascular disease? You may be eligible to take part in a new heart health study.

The siblings and children of people who have had a heart attack before the age of 55 are at higher risk—and they may not know it.

The CASCADE-MI study gives successful applicants heart health checks for their family members, which may include a cutting-edge CT scan of the heart.

By participating in this study, you'll be helping heart-health researchers find a link, and possibly an early warning sign for families of people who've had an early heart attack. And you'll be helping yourself and your loved ones live longer, healthier lives.

Everyone is welcome to apply, but to help improve the study's data we're especially interested in hearing from male applicants.

Fill out an expression of interest form by scanning the QR code above!



# AVOIDING ONLINE MISINFORMATION

Tips and helpful information



## Your guide to avoiding medical misinformation.

You've seen it before: a social media post about a medical breakthrough with no sources, claiming outrageous, miracle feats. You find yourself wondering if what you've just read is true.

According to the *2025 Digital News Report*, one in four people say social media is their main source of news, overtaking online news websites. With **misinformation**, **disinformation** and unreliable AI-generated content rampant, chances are what you're seeing online is false or misleading.

As a valued Perkins supporter and subscriber, you matter to us. Misinformation and disinformation can often lead to fear, especially when it's about recently reported disease outbreaks, such as Hantavirus, Ebola, Measles and Diphtheria. It can also cause division and confusion.

A reputable collection of fact sheets from the World Health Organisation about the aforementioned diseases (and so much more) can be found by scanning the QR code above. And, you can click [here](#) for six tips to spot and stop information manipulation.





## CANCER-EATING BACTERIA

### What if the answer to beating cancer came from something that could eat it from the inside out?

An interdisciplinary research team in Canada has identified a bacteria that could be genetically engineered to eat cancerous tumours from the inside out.

Key to the approach is *Clostridium sporogenes*, a bacteria commonly found in soil. What's special about this bacteria is that it can only grow and multiply in environments with zero oxygen - like the inside of a solid, cancerous tumour filled with dead cells.

But, the moment the cancer-eating organisms reach the outer edges of the tumours, they become exposed to low-levels of oxygen and die without completing their mission to fully destroy them.

To solve that problem, the researchers conducted a **study** where they added a gene to the organism from a related bacterium that can better tolerate oxygen, enabling it to live longer near the outermost layer in a tumour. But that just created another problem - if activated at the wrong time, the new bacteria could inadvertently grow in oxygen-rich places like the bloodstream.

Through a **follow-up study**, they found a way to activate the oxygen-resistant gene at just the right time through a process called quorum sensing.

With both studies completed, the researchers now plan on combining their findings into one single bacterium and testing it on a tumour. Theoretically, the oxygen-resistant gene they add will only activate when enough bacteria have grown in a cancer cell. The group of cells give off a chemical signal at just the right population level.

This research is still in the preclinical laboratory phase - we'll share more when updates are available.





## THE BIOTA PIPELINE

Four projects. All grounded in the power of nature.



### You can help scientists unlock the disease-fighting properties of WA's unique flora and fauna and support discoveries that will help you and your loved ones.

The Biota Pipeline was born from a donation left to the Perkins from the late Chris Reichstein, who loved nature as a resource, comfort and healer. Chris's vision was to push medical research forward through the power of the natural world. Through his Mount Burdett Foundation, his gift to medical research has helped establish the Biota Pipeline.

So far, four research projects have been given life.

#### Busselton Jetty Sea Sponges

These sponges, found underneath the Busselton Jetty, have a unique chemical compound. They exhibit anti-inflammatory, antiviral and anticancer properties.

#### Honeybee Venom as a Breast Cancer Treatment

Perkins researchers discovered a peptide in bee venom that could kill cancer cells in hard-to-treat triple negative and HER2 breast cancer cells, leaving healthy cells untouched.

#### Shark Bay Sea Cucumbers

This project aims to integrate aquaculture of Shark Bay sea cucumber species with the search for new active compounds in the venom that may form the basis for new drug development.

#### Plants for Space

This project's goal is to develop innovative plant varieties and production systems to provide sustainable nutrition and on-demand production of medicines in space without the need for resupply missions from Earth.

To learn more about the Biota Pipeline and the above research projects and find out how you can support this incredible research, scan the QR code above.



Helping people live<sup>+</sup>  
longer, healthier lives.

#### Get in touch

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# HOW TO REDUCE UP TO 50% OF MICROPLASTICS IN YOUR BODY

In just one week!



## In just one week, you can lower the amount of plastic chemicals in your body by up to half! This eye-opening world-first study from UWA shows you how.

The trial, aptly named PERTH (the *Plastic Exposure Reduction Transforms Health* trial), is the first of its kind. Led by a multidisciplinary team at The University of Western Australia, the trial investigated plastic chemical exposure in over 200 Western Australians - and the results are alarming.

Early findings identified a clear relationship between a person's diet patterns and exposure. Plastic chemicals, including BPA, BPS and phthalates, were detected in 100% of participants. Yep, 100%.

To see if reduced exposure would lower these levels, the team implemented a strict low-plastic lifestyle for participants. This involved the work of dieticians, who worked with more than 100 farmers and food producers to adjust food handling and supply chain processes.

The results are in, and after just one week of this adjusted lifestyle, chemical levels dropped by up to 50%.

While these results may be shocking, the researchers have kindly shared a number of actions you can start doing today to reduce your exposure to plastics. Scan QR code to view the factsheet.



**Perkins**  
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