

HUMANS OF MEDICAL RESEARCH



Understanding DISEASE... Finding a CURE

PROFESSOR MARK GORRELL



It was a simple desire to know how things work, which initially attracted Professor Mark Gorrell to science. As a young child, Mark closely followed the work of his maternal grandfather who was a plumber in rural New South Wales.

"Anything mechanical, my grandfather would take apart and show me," says Mark.

But a career in plumbing wasn't to be. Mark was ultimately attracted to the field of protein biochemistry – saying it perfectly combined his interest in knowing how things work with his love of biology. Mark studied at Johns Hopkins University in the US state of Maryland in the early 1990s, where he learnt more about cell biology and virology – particularly in relation to HIV. He later returned to Australia and began working at the Centenary Institute in 1995, where he currently heads the Liver Enzymes in Metabolism and Inflammation Program.

His work is focused on the link between a particular family of enzymes and various chronic conditions, particularly chronic liver diseases and diabetes, which can lead to severe liver scarring, and liver failure or cancer. It's an ongoing project which has so far been 25 years in the making.

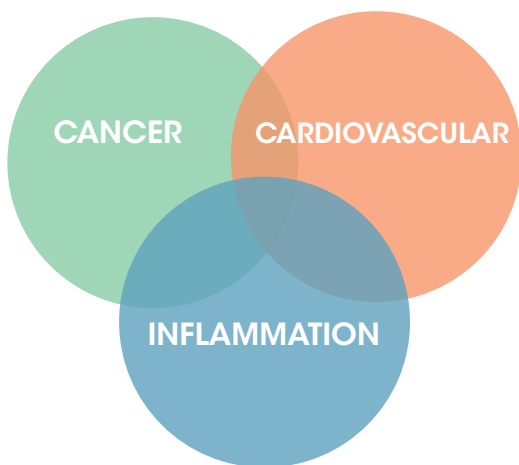
"I woke up at 4AM one morning in 1993, and decided to discover new enzymes. I was thinking about what had been published on the topic and decided there was a major fundamental knowledge gap. I'd been studying DPP4, and believed there had to be more in the family. It turns out there were three more, so I set about discovering them. I've been looking at that enzyme family ever since."

Outside his own research, Mark enjoys mentoring younger scientists. He leads Centenary's Postgraduate Research Program, and is also volunteering as a research tutor and as a learning facilitator for second-year medicine students at the University of Sydney. Mark is adamant that research is more than simply reading a book – rather, it's about creating new knowledge.

"The reason for discovering new things is to improve human health. You can improve human health by being a doctor, and treating one patient at a time. You can also improve human health by being a researcher, and helping 100 million people at once."

With a special interest in ancient history, Mark ensures he sets aside time when attending overseas conferences to visit museums. Among his favourites – The Louvre, The British Museum, and the Met. Back home, he enjoys attending performances by the Sydney Symphony Orchestra at the Opera House, as well as spending time in the garden.

WHAT DOES IT ALL MEAN?



CANCER

Cancer is a disease of the cells, which are the body's basic building blocks.

1 in 3 women and 1 in 2 men will be diagnosed with cancer by the age of 85.

INFLAMMATION

Inflammation is the body's natural response to protect itself against harm. There are two types: acute and chronic.

1 in 9 Australians have asthma, around 2.5 million people.

CARDIOVASCULAR

Cardiovascular Disease (CVD) is a collective term for diseases of the heart and blood vessels.

Almost 1 in 3 deaths in Australia in 2015 were due to cardiovascular disease.

Together we are the solution...together we can save lives.



Ask Mark a question here <https://www.centenary.org.au/meet-mark-gorrell/>