

Science beams

\$2m Synchrotron boost

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A NEW \$2 million equipment coup for the Australian Synchrotron will help fast-track drug discovery and treatments for cancer research.

It has been likened to moving from dial-up to broadband.

The new detector for the micro crystallography beam line will speed up the ability of researchers to analyse proteins by tenfold, allowing hundreds more researchers nationwide to access the fully booked particle accelerator technology.

Australian Synchrotron director Professor Andrew Peele said unravelling the structure and behaviour of proteins was the key to understanding disease and treatment targets.

"The basic idea is if you can understand the structure of proteins, you can understand how they work in the human body," he said.

"That tells you what kind of drugs you can design to inter-



AS scientist Dr David Aragao and the \$2 million detector.

act with those proteins to turn them off, particularly for diseases like cancer.

"The way you understand that structure is with crystallography, which is shining a beam of light on the crystal made of proteins.

"From the pattern of X-ray light, you can work backwards and understand the atomic structure of the protein."

Prof Peele said the Clayton-based beam line, funded by the Australian Cancer Research Foundation, would shorten the time from laboratory research to the use of lifesaving drugs.

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