



BIOTECH AND HEALTH

**THE AUSTRALIAN SYNCHROTRON: YOUR PARTNER
IN PROBLEM-SOLVING AND INNOVATION**

'The precisely detailed understanding of key protein structures, that only the Australian Synchrotron can provide, was crucial to our work.'

WORLD-CLASS RESEARCH SOLUTIONS

The Australian Synchrotron empowers industry to problem-solve and innovate, revealing how matter fits together, moves, interacts and changes, in a way that outshines what can be achieved in any conventional laboratory.

We partner with industry to achieve world-class breakthroughs in areas as diverse as supporting the development of effective treatments for Alzheimer's disease and reducing impacts of environmentally intensive practices, to boosting the nutritional value of food and gaining new insight into the efficient storage and transport of energy.

Our experts harness light, a million times brighter than the sun, to examine and analyse the structure and behaviour of samples in unprecedented detail, with precision, accuracy and speed not available elsewhere, helping industry partners to interrupt, boost and manipulate the most basic of processes to overcome technical hurdles and roadblocks and drive product innovation.

WE PROVIDE A RANGE OF HIGHLY SPECIALISED AND UNIQUE SERVICES IN BIOTECH AND HEALTH

DRUG DISCOVERY:

- analysing the molecular structure of naturally-occurring compounds to guide the synthesis of novel pharmaceuticals to treat diseases.

DRUG AND HEALTH PRODUCT DEVELOPMENT:

- visualising the structures of drugs bound to their target proteins, revealing critical information about the interaction to inform improved specificity in next generations of a drug.

MEDICAL DEVICE DEVELOPMENT:

- investigating the structure and composition of devices in vivo and ex vivo to identify potential problems and find solutions in the development and prototyping of implants, sensors and other medical devices; includes analysis of biocompatible surfaces.

SCALE-UP AND QUALITY CONTROL:

- monitoring the physical and chemical properties of products through the production cycle, to identify precisely when critical changes occur that can affect the quality or success of the final product.

WHAT OUR CLIENTS SAY ABOUT US

'The precisely detailed understanding of key protein structures, that only the Australian Synchrotron can provide, was crucial to our work. We needed this level of detail to develop a drug that targets one single protein – and not the other four very similar proteins in the same family – critical for minimising potential side-effects.'

Dr Peter Czabotar, Laboratory Head, Structural Biology, Walter and Eliza Hall Institute of Medical Research

**WE PROVIDE FULLY-SUPPORTED
ANALYTICAL SERVICES BEFORE,
DURING AND AFTER YOUR
EXPERIMENTS, INCLUDING:**

- identifying and tailoring effective synchrotron techniques for your sample to expedite detailed analysis
- delivering fast data acquisition from your sample, in unprecedented detail
- supporting timely data analysis and reporting.


**For further information on
how the Australian Synchrotron
can help you problem-solve
and innovate, contact:**

Industry Engagement team
t +61 3 8540 4232
m +61 417 294 979
e industry@synchrotron.org.au

Australian Synchrotron

800 Blackburn Road,
Clayton Victoria 3168

synchrotron.org.au

 @aus_synchrotron
 Australian Synchrotron
 AustralianSynchrotron

