

INDUSTRY ENGAGEMENT - METABOLOMICS

Metabolomics is a new science that is being rapidly adopted by healthcare, food, agriculture and environmental industries.

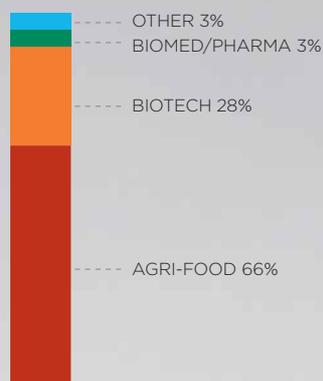
In 2007 the Commonwealth Government established the world's first hub for metabolomics capabilities and related research services.

The ability to identify and analyse small metabolites within any type of biological sample provides valuable insights on the cellular interactions that are occurring at a certain point in time. Such information has growing commercial application for disease diagnosis, drug development, product safety, plant yield, food production and environmental monitoring.

Metabolomics Australia brings together a broad suite of technology platforms and intellectual capital to help unravel complex biological questions. The consortium provides a range of services to researchers and collaborates with a growing range of companies.

Industry users from the biotech, food and agricultural sectors have been early adopters of metabolomics and contract services for discovery as well as product development and delivery. Aviation, food, environmental monitoring and pharmaceutical companies are also increasing their demand for metabolomics analyses.

INDUSTRY ENGAGEMENT



METABOLOMICS AUSTRALIA FACILITIES



Murdoch University

- high resolution mass spectrometry
- fungal metabolomics
- agriculture

University of Western Australia

- metabolomic services
- plant biology
- environmental science
- biomedicine

Australian Wine Research Institute

- metabolomic services
- food and wine
- agriculture

University of Queensland

- systems biology
- synthetic biology
- industrial partnerships

University of Melbourne

- metabolomic services
- tissue imaging
- plant biology
- agriculture
- biomedicine
- environmental science

CASE STUDIES



ZOETIS AUSTRALIA

Zoetis Australia provides more than 300 animal health products and services for farm and companion animals. The Australian Institute of Bioengineering and Nanotechnology has collaborated with Zoetis to improve production methods for their animal vaccines.



CO-OPERATIVE BULK HANDLING GROUP

The CBH Group is a Western Australian grain handling company and the only remaining grain co-operative in Australia. Murdoch University's metabolomics facility has a long term collaboration and service agreement to provide pesticide residue analysis and new methodologies for pesticide detection along with studies in grain metabolomics. This close relationship gives CBH access to world class infrastructure and intellectual expertise to ensure high levels of grain quality for exports.



METABOLOMICS
AUSTRALIA



AUSTRALIAN PORK

Australian Pork is a producer owned organisation that supports and promotes Australia's pork industry. The company contracted metabolomics services to develop an ultra-sensitive method to measure beta-agonists in pork meat. This collaboration has generated a more sensitive method to detect growth promotants and offers nationwide potential to improve and maintain high levels of meat quality for products manufactured for local and international markets.



SBC RESEARCH

The University of Melbourne's metabolomics team has been collaborating with SBC Research to develop a diagnostic for breast cancer. The collaboration has transgressed from the development of new analysis methodologies to testing and analysing human hair samples from patients both with and without disease. The project also draws on new lipidomics capabilities.

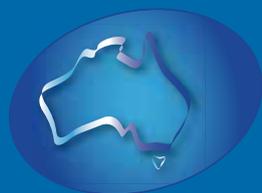
BIOPLATFORMS AUSTRALIA

Bioplatforms Australia's infrastructure network provides open access to sophisticated instrumentation that is operated by expert technical staff for academic, research and commercial endeavours.

Our metabolomics partners regularly collaborate with industry to translate research into productive outcomes.

Value of BPA research infrastructure network to industry

- Rapid and affordable access to world leading talent and infrastructure that is costly to establish, operate and maintain
- Access to expert problem solving
- Transforms research techniques into commercial applications
- Enables product innovation and a competitive edge
- Linkages to academia and a gateway to international collaborations
- Economies of scale via high throughput instrumentation



BIOPLATFORMS
AUSTRALIA

Bioplatforms Australia Ltd

Andrew Gilbert
T | 02 9850 6200
M | 0410 538 648
www.bioplatforms.com

Bioplatforms Australia is a non-profit organisation that supports Australian life science research with crucial investments in state-of-the-art 'omics technologies and cutting edge expertise. Investment funding has been provided through the Commonwealth Government National

NCRIS
National Research
Infrastructure for Australia
An Australian Government Initiative

Collaborative Research Infrastructure Strategy, 2009 EIF Super Science Initiative and the Collaborative Research Scheme. Co-investments have been made by State Governments, research institutes and commercial entities.