

WESTERN AUSTRALIAN State Agricultural Biotechnology Centre

Biotechnology – investing in our future

Biotechnology is one of the fastest growing sectors of the global economy, with agricultural biotechnology a substantial contributor. The power of new sequencing technologies, comparative and functional genomics, new methods to study proteins and metabolites, high throughput analyses, molecular diagnostics and transgenic technologies are now being applied to crop and animal improvement.

Western Australian State Agricultural Biotechnology Centre (SABC)

The Western Australian State Agricultural Biotechnology Centre (SABC) is the major centre for research and development in agricultural biotechnology for Western Australia. It was established in 1993, and provides high quality research laboratories, and state-of-the-art equipment for research on crop and horticultural plants, domestic production animals, molecular markers and marker-assisted breeding, pest and disease control, plant and animal biosecurity and solving problems encountered by the agricultural industry.

Mission:

'To provide state-of-the-art facilities and equipment enabling multi-disciplinary research in biotechnology which underpins the agricultural and veterinary industry for the benefit of our community'

The SABC operates as a resource centre to provide high quality laboratory space for many different researchers. These include university research centres and research groups, the Department of Agriculture and Food WA biotechnology pre-breeding services for wheat and barley improvement, and incubation of new biotech companies. There is a critical mass of researchers (150-200) either based full time in the Centre, or who make use of its facilities.



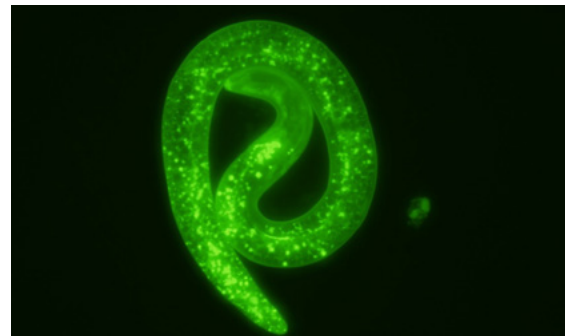
Research hotel

The SABC currently operates as a 'Research Hotel', in which the laboratory bench space and equipment can be rented by academic, government and commercial researchers. This has encouraged the incubation of start-up companies, and provides a very cost-effective research environment. The SABC welcomes enquiries from early stage or more mature companies interested in accessing cost-effective laboratory space to undertake R&D in Western Australia.

R&D capabilities

The range of R&D undertaken in the SABC is varied, and includes:

- Basic and applied research in molecular biology and biotechnology (plants, animals, micro-organisms)
- Discovery, validation and implementation of molecular markers (plants, animals)
- Marker-assisted selection, pedigree analysis (plants, animals)
- High throughput diagnostic technologies
- Sanger and deep sequencing technologies (AB 3730, Roche 454 FLX, Ion Torrent), DNA sequencing service for agriculture
- Structural, comparative and functional genomics
- Proteomics, fundamental and applied
- Associated bioinformatics and metabolomics
- Vaccine development
- Molecular plant pathology (viruses, fungi, nematodes, insects)
- Production and analysis of transgenic plants
- Animal pathology (parasitology, virology, microbiology)
- Animal production and health
- Plant and animal biosecurity
- Fish population genetics
- Wheat and barley breeding
- Grain quality
- Diagnostic services for the agricultural industry



For further information about the SABC please contact:

WA State Agricultural Biotechnology Centre
Murdoch University
90 South Street
Murdoch WA 6150

SABC Director Professor Michael Jones +61 (8) 9360 2424
SABC Manager Dr David Berryman +61 (8) 9360 6119
SABC Administrative Officer Ms Bee-Lay Addis +61 (8) 9360 6116

Website www.murdoch.edu.au/Research-capabilities/SABC/

