

Impact Assessment of DDB-funded Grants - FY23

Impact Statement

The Dust Diseases Board is committed to supporting the latest research that creates impact that can be translated into tangible benefits to quality of life for workers and families affected by dust diseases.

Under the 2020-2024 Grants Strategy, the Dust Diseases Board (DDB) funds research investigating all parts of the Diseases pathway (risk identification, prevention, diagnosis, treatment and quality of life) using any research methodology.

Primary Impact

Long Term > 3 years

IDEAS TO ACTION

Boosting Antigen Targeted Therapy Against Cancer (ATTAC) for Malignant Mesothelioma

IDEAS TO ACTION

AIR Study - A minimal-invasive biopsy approach for pleural malignancies

**FELLOWSHIPS & SCHOLARSHIPS
Loss of BAP1 and CDKN2Ap16 in Malignant Pleural Mesothelioma**

**SUPPORT ORGANISATIONS
24/7 Helpline Operator
Asbestos Diseases Foundation of Australia (ADFA), NSW**

Secondary Impact

Short-Medium Term < 3 years

IDEAS TO ACTION

Boosting Antigen Targeted Therapy Against Cancer (ATTAC) for Malignant Mesothelioma

IDEAS TO ACTION

AIR Study - A minimal-invasive biopsy approach for pleural malignancies

FELLOWSHIPS & SCHOLARSHIPS

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Total value of portfolio – split across the funding streams

TOTAL \$5.92M (33 grants) = **IDEAS TO ACTION** \$3.29M (17 grants) + **FOCUS** \$1.04M (6 grants) + **FELLOWSHIPS & SCHOLARSHIPS** \$1.08M (7 grants) + **SUPPORT ORGANISATIONS** \$516,012 (3 grants)

Current Grant Portfolio and Researcher Profile



Innovation and collaboration drives our researchers



Gender

Balanced across the portfolio however:

- predominantly female scientists leading projects
- male clinicians leading projects.



Disease Stages

Most projects investigate Disease Treatments for Mesothelioma.



Career Stage

Most are early or established career researchers.



State

Most research is conducted in WA, followed by NSW.



Research method

Basic research dominates the landscape.



Clinician or Scientist

Most research is led by Scientists (75%)

FY23 Funding

Four (4) grants totalling \$1.24M

Two (2) grants totalling \$423,741

One (1) Fellowship totalling \$240,000

Two (2) grants totalling \$423,450

Funding Streams

Ideas to Action Funding Stream

Discovery and Translational research

Focus Funding Stream

Priorities, emerging trends and risks

Fellowships & Scholarships

Building capability and capacity

Support organisations

Supporting those living with a disease and their families

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Primary Impact

Long Term > 3 years

IDEAS TO ACTION

Boosting Antigen Targeted Therapy Against Cancer (ATTAC) for Malignant Mesothelioma

Professor Bruce Robinson
University of Western Australia

Basic research for mesothelioma treatment:

KNOWLEDGE

- Lower mutation burden compared to other cancers.
- Neoantigens, which are self-antigens generated by tumour cells as a result of genomic mutations, can trigger an immune response.
- Both findings can guide the development of immunotherapies and improve understanding of chemotherapy's impact on the immune system.

IDEAS TO ACTION

AIR Study – A minimal-invasive biopsy approach for pleural malignancies

Dr Edward Fysh
University of Western Australia

Intervention/trial for mesothelioma diagnosis:

KNOWLEDGE

- Novel minimal invasive biopsy approach published.
- Publication reporting safety, feasibility, efficacy and dissemination to medical community.
- Potential for future grants to progress knowledge.

ACROSS KNOWLEDGE, HEALTH, SOCIAL AND ECONOMIC IMPACTS

- Data analysis – scoring system development to analyse images to assess safety and feasibility of the novel protocol.
- Improved imaging findings in patients with dust disease-related thoracic/pleural malignancies could help avoid risks, complications, and costs of invasive thoracoscopic surgeries.

ECONOMIC

- Cost savings due to reduced repeat imaging or biopsies.

FELLOWSHIPS & SCHOLARSHIPS
Loss of BAP1 and CDKN2Ap16 in Malignant Pleural Mesothelioma

Fellowship recipient
Dr Amber Louw
University of Western Australia

Basic research for mesothelioma diagnosis:

KNOWLEDGE

- Improved understanding of malignant pleural mesothelioma.
- Enhanced diagnostic accuracy.
- Personalised treatment strategies.
- Better early detection methods for improved patient outcomes.
- Multiple publications.

SUPPORT ORGANISATIONS

24/7 Helpline Operator
Asbestos Diseases Foundation of Australia (ADFA), NSW

Providing support for:

HEALTH & PSYCHOSOCIAL WELLBEING

- Increased social connections amongst peers affected by mesothelioma including carers, families and the bereaved.
- Linkage with other organisations providing assistance and information.
- Helpline support for victims and families affected by asbestos-related diseases.

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Secondary Impact

Short-Medium Term < 3 years

IDEAS TO ACTION

Boosting Antigen Targeted Therapy Against Cancer (ATTAC) for Malignant Mesothelioma

Professor Bruce Robinson
University of Western Australia

Basic research for mesothelioma treatment:

CAPACITY AND CAPABILITY

- Developed expertise in cancer immunology, data analysis and a novel screening method.
- Findings lay the groundwork for future studies in neoantigens and cancer immunology.

IDEAS TO ACTION

AIR Study - A minimal-invasive biopsy approach for pleural malignancies

Dr Edward Fysh
University of Western Australia

Intervention/trial for mesothelioma diagnosis:

COLLABORATION, CAPACITY AND CAPABILITY BUILDING

- Novel protocol pilot - successful recruitment across three sites assessing safety and feasibility.
- Multiple team members using the scoring system.
- Wider implementation of the study techniques in national/international centres.

FELLOWSHIPS & SCHOLARSHIPS

Loss of BAP1 and CDKN2Ap16 in Malignant Pleural Mesothelioma

Fellowship recipient
Dr Amber Louw
University of Western Australia

Basic research for mesothelioma diagnosis:

COLLABORATION

- International collaboration.
- Enhanced skills in molecular techniques and bioinformatics analysis, and expertise in histopathological diagnostic methods.
- Transition to higher degree.

SUPPORT ORGANISATIONS

**24/7 Helpline Operator
Asbestos Diseases
Foundation of Australia
(ADFA), NSW**

Providing support for:

COLLABORATION, CAPACITY AND CAPABILITY BUILDING

- Referrals to other support organisations.

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Current Grant Portfolio and Researcher Profile



Innovation and collaboration drives our researchers

Researchers have prioritised (in order of importance) the following principles that all lead to impact:

- Early-stage innovations and ideas.
- Novel and innovative benchtop research, new treatments, and pilot programs to improve health and quality of life.
- Fosters collaboration to develop and broaden expertise and leverage investment.
- Builds capacity and capability, developing dust disease researchers of tomorrow.