



MEDICAL ADVANCES WITHOUT ANIMALS

THE MAWA TRUST

DEVELOPING ALTERNATIVES TO ANIMAL RESEARCH

INITIATIVES FOR MAWA FUNDING

1. MAWA HONOURS RESEARCH SCHOLARSHIPS

Honours scholarships (\$10,000 each) have been established to attract new graduates at the beginning of their research careers to advance the development, validation or application of non-animal methods of research. Students will receive support for undertaking honours research projects that replace the use animals or animal products in medical research.

- To provide financial support for one year in the form of a stipend for Honours students engaged in non-animal research (\$7,000)
- To provide support for one year to the host laboratory for the students' research project (\$3,000)
- Support may also be provided for the student to present research outcomes at a national conference

MAWA Honours Scholarships. Most biological science disciplines offer honours scholarships (\$4,000 - \$9,000 per annum) as a clear incentive for new graduates to do Honours with them and then follow their research path which is often animal-based. The hiatus between honours and doctoral studies has been a concern to the MAWA Board and Scientific Advisory Panel. It is difficult for a student to change direction having embarked on an animal-based research career in a given laboratory during honours and then want to continue in that research area as a doctoral student. Honours scholarships for projects replacing the use of animals will attract new graduates at the beginning of their research careers to promote the scientific advantages and merits of non-animal research.

2. MAWA MASTERS RESEARCH SCHOLARSHIPS

Masters scholarships (up to \$10,000 pa) may be provided to scholars who intend to undertake doctoral studies that meet MAWA's criteria and fit relevant guidelines. Students will receive support for undertaking Masters research projects that replace the use animals or animal products in medical research.

- To provide financial support in the form of a stipend for Masters students engaged in non-animal research (\$8,000)
- To provide support for the host laboratory relating to the students' research project and/or to provide support for the student to present research outcomes at a national scientific meeting (\$2,000)

MAWA Masters Scholarships. This funding is to support masters student projects directed at replacing animals in medical research. The number of scholarships awarded per annum may vary in line with MAWA's financial position at the time. MAWA Masters Scholarships will enable Honours scholars to continue their non-animal based research towards Doctoral studies.

3. MAWA DOCTORAL RESEARCH SCHOLARSHIPS

Doctoral research scholarships (\$75,000 each) were established with the specific intention of highlighting the scientific and practical advantages of non-animal research, and encouraging new scientists to advance the development, validation and application of methods that replace animals in medical research. Funding is not available simply in support of non-animal research per se.

- The scholarships comprise
 - A stipend of \$22,500 pa plus identifiable costs up to \$2,500 per annum
 - A total of \$75,000 each over three years
- Scholarship to remain tied to the MAWA principle of "animal replacement" and animal free, not simply human based research.

MAWA Doctoral Scholarships. This funding is to support doctoral student projects directed at replacing animals in medical research. The number of scholarships awarded per annum may vary in line with MAWA's financial position at the time. MAWA Doctoral Scholarships will assist scholars to advance towards non animal-based post-doctoral research.

4. MAWA SUPPLEMENTARY RESEARCH SCHOLARSHIPS

Supplementary doctoral scholarships up to \$10,000 pa may be provided to scholars who are awarded a National Health & Medical Research Council (NHMRC) scholarship, an Australian Postgraduate Award (APA), or similar scholarship, to undertake doctoral studies that meet MAWA's criteria and fit relevant guidelines.

MAWA Supplementary Scholarships. Many research institutions and other organisations provide supplementary scholarships or “top-up” funding. This initiative will enable the Trust to co-sponsor appropriate projects and to spread its funds more widely, thereby increasing MAWA's profile.

5. MAWA BRIDGING RESEARCH SCHOLARSHIPS

Bridging scholarships up to \$7,000 for one semester may be provided to scholars who: have been approved for doctoral studies; are likely to be awarded an NHMRC scholarship, an Australian Postgraduate Award or similar scholarship; are undertaking research projects that meet MAWA's criteria and fit relevant guidelines; and who wish to commence their studies in second semester rather than at the beginning of the academic year.

MAWA Bridging Scholarships. In recognition that Australia is out of step with most overseas countries which commence their academic year mid year (ie at the beginning of Australia's second semester) and that applications for most doctoral scholarships close on 31 October each year restricting commencements to the beginning of the calendar year, these scholarships have been introduced to fill a niche by providing financial support to bridge the gap. This will be an economical way for the Trust to provide an incentive to students to undertake research projects that will further MAWA's aims.

6. MAWA TRAVEL BURSARIES

MAWA Travel Bursaries can be awarded for a variety of reasons:

- To visit or work for a brief period in identified institutions promoting alternative methods;
- To continue doctoral work on alternatives overseas through a post-doctoral Scholarship;
- To attend identified overseas training programs in the development and implementation of alternatives;
- To provide a detailed report to the MAWA Board, identifying future trends, initiatives, etc.

MAWA Travel Bursaries. This initiative could be a *de novo* appointment or post-doctoral support for one of MAWA's doctoral scholars who seek to further the principles of MAWA by a period of overseas travel and research. It may not require a full year's support but identifies the need for someone to spend time on the ground at different locations.

7. MAWA CONFERENCE BURSARIES

MAWA Conference Bursaries are intended to support MAWA delegates, researchers and scholars to attend focussed international conferences on issues relating to the work of MAWA:

- To provide funds to attend the conference;
- To provide funds to present a poster/paper/seminar on the condition that the recipient is likely to achieve a publication in a high quality peer-reviewed journal;
- Recipients to provide a report to the Trust and articles for MAWA's newsletter and website;
- Recipients to provide a copy of their presentation and all publications relating to MAWA support;
- Payment to be made in two instalments, the first upon MAWA's approval of accepted abstracts, the second upon publication.

MAWA Conference Bursaries. Following the attendance of MAWA delegates at World Congresses on Alternatives, and MAWA scholars and funded researchers attendance at various conferences, seminars and symposia, the Trust will support conference attendance of this type in future to keep abreast of developments throughout the world and to present posters, papers, seminars etc relating to, or furthering the aims of MAWA.

8. MAWA RESEARCH & DEVELOPMENT GRANTS

MAWA provides up to \$30,000 for research and development grants which advance medical science and improve human health and therapeutic interventions without the use of animals or animal products.

- To support, on an ad hoc basis, research projects of one to three years duration directed at the replacement of animals or animal products in medical research.
- To cover salaries, equipment, consumables, travel, etc to a maximum of \$30,000.

MAWA Research and Development Grants. These grants provide opportunities as they arise, for ad hoc funding (suitably refereed etc) of worthy projects, identified by MAWA's Board and Scientific Advisory Panel as meeting MAWA's principles. There is no formal annual round of applications but all applications follow an established grant application format, refereed and approved by MAWA's Board and Scientific Advisory Panel before funding.

9. MAWA EQUIPMENT GRANTS

MAWA will provide funding for equipment up to \$30,000 to support medical research which will develop or implement new methods of conducting medical research to replace the use of animals or animal products.

MAWA Equipment Grants. Equipment funded by the Trust must be used exclusively for non-animal research and the research projects utilising the equipment must meet MAWA's criteria and be in line with MAWA's Scientific Policies and Conditions for Support.

10. MAWA DISTINGUISHED SCHOLARS

MAWA will support lecture tours of Australia by distinguished figures in the field of animal replacement science whose credentials adhere to MAWA's principles. Speakers would also promote MAWA's initiatives (eg research grants, scholarships, educational programs etc):

- To provide support for international figures in animal replacement science to travel to Australia and deliver a series of lectures in major disciplines at major institutions and through the media;
- Lectures to be prepared as a DVD for distribution nationally and internationally.

MAWA Distinguished Scholars. This sponsorship is directed at international figures. MAWA will offer a stipend and cover travel costs and production and dissemination costs of promotional and presentation material.

11. MAWA EDUCATION IN ALTERNATIVE APPROACHES & METHODS

MAWA will provide funding to support teaching initiatives in animal replacement science.

- To develop undergraduate and graduate courses and modules to provide students with education in alternative approaches and methods to replace the use of animals in biomedical research
- To promote and facilitate the adoption of replacement science courses and modules by Australian teaching institutions
- To attract funding to support this initiative

MAWA Education in Alternative Methods. Despite the fact that the National Health and Medical Research Council (NHMRC) *Australian Code of Practice for the Care and Use of Animals for Scientific Purposes* states that "techniques that totally or partially replace the use of animals for scientific purposes must be sought and used where ever possible", compliance with this requirement is poor. Overseas surveys indicate that the most common reason for non-compliance is inadequate consideration of alternatives. Commitment to the teaching of replacement methods will be required in order to overcome this problem and resources must be allocated to support the development and implementation of courses and their promotion throughout Australia.

12. MAWA SUPPORT FOR HUMAN TISSUE BANKS

MAWA will provide funding up to \$30,000 for the establishment, development and maintenance of human tissue banks. Currently large numbers of animals are used in experiments that model human disease in an attempt to improve understanding of human illnesses, their causes, progression, and the underlying features to facilitate prevention, early diagnosis and effective treatment. The provision of human tissue for this type of research will make it an attractive choice for researchers to study human disease using human tissue while removing the need to resort to animal models.

MAWA Supported Tissue Banks. MAWA will provide funding for the establishment, development and maintenance of human tissue banks to enable research to be carried out using available human tissue to reduce the use of animal tissue and animal models.

13. MAWA FELLOWSHIPS

MAWA will award funds for Fellowships (salary package, on-costs, and research funds) to provide scientific leadership in the field of replacement research to:

- Undertake high quality research, including the achievement of appropriate research output through publication of results. Included in the portfolio is the establishment of interdisciplinary networks to achieve outcomes to further MAWA's aims;
- Identify opportunities and secure external funding for research grants, or program grants for replacement research;

- Develop undergraduate and graduate courses to provide students with education in alternative methods;
- Liaise nationally and internationally, and identify and interact with organisations that are leading the way in replacement research;
- Prepare reports, briefings, submissions, media releases and articles;
- Represent MAWA's aim to universities, research institutions, government, industry bodies and opinion makers by articulating clear philosophical, policy and strategic positions;
- Initiate, develop and maintain partnerships and strategic relationships with other organisations and decision-makers to further MAWA's aims.

MAWA Fellowships. The Trust provides funding for academics to conduct replacement research, develop alternatives courses, provide scientific leadership in the field of alternatives and liaise with the scientific community, government and the private sector to promote MAWA's ideals, and identify, develop and promote partnerships and funding opportunities.

14. THE AUSTRALIAN CENTRE FOR ALTERNATIVES TO ANIMAL RESEARCH

MAWA plans to establish the Australian Centre for Alternatives to Animal Research (ACAAR) at the Australian National University (ANU). The ANU is a world leading university, ranked first in Australia and nineteenth internationally by QS World University Rankings 2015-2016. The aim of ACAAR will be to facilitate and promote the development and utilisation of non-animal experimental methods to replace the use of animals and animal products in fundamental biomedical research. It will act as a focal point for animal replacement science, act as a knowledge and technical resource and:

- Develop and implement strategies that will further the exploration and adoption of alternative methods in medical research;
- Raise funds and secure grants to further the work of ACAAR, including approaching government bodies such as the National Health and Medical Research Council (NHMRC) and the Australian Research Council (ARC) for funding to develop, apply and promote non-animal research methods;
- Undertake replacement research, provide supervision of research students and produce conference and seminar papers and peer-reviewed publications from that research;
- Develop undergraduate and graduate courses to provide students with education in the field of alternative methods;
- Represent the work of ACAAR to universities, research institutions, governments, industry bodies and opinion makers;
- Disseminate outcomes from ACAAR research and other research that complement the activities of ACAAR;
- Facilitate nationwide adoption of alternatives to animals in research;
- Develop strategic relationships and collaborations with other organizations and institutions.
- Provide funding for replacement research by way of grants, scholarships and other financial contributions;
- Oversee the administration of research grants, scholarships, and other initiatives of ACAAR;
- Monitor media, organisational, academic and industry publications, and other sources to inform ongoing projects and activities;
- Work to achieve recognition for ACAAR as an international Centre of Excellence in Alternatives;

Centre for Alternatives. The principal funding for the Centre will initially be provided by MAWA and additional funding will be sought from both the government and corporate sectors. The first step was the appointment of two ANU MAWA Fellows and an Associate Professor in Alternatives to provide a leadership role in working toward establishing the Australian Centre for Alternatives to Animal Research (ACAAR) at the ANU. The ANU based research program began with the establishment of an alternatives bioinformatics research group in the John Curtin School of Medical Research (JCSMR), Australia's national medical research institution, and by supporting computational biophysics research projects in the ANU Research School of Biology and theoretical and computational chemistry research in the ANU Research School of Chemistry. The ANU has also been awarded research grants, scholarships and bursaries for other animal replacement projects and for researchers and scholars to travel to overseas institutions for training in alternatives. The work at the ANU both complements and contributes to a wide range of research and development projects which MAWA supports in many other universities and research institutions throughout Australia.