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| <b>Policy</b>      | <b>Garvan Research Policy</b>            |
| <b>Approved by</b> | Professor John Shine, Executive Director |
| <b>Date</b>        | 15 July 2007                             |



### **Genetically modified organisms (GMOs)**

Genetic manipulation of bacterial and rodent genomes is a mainstay of modern medical research. The genetically modified organisms used at Garvan include: the bacterium *E.coli*, tissue cell lines grown in culture, replication defective viral vectors, and knockout and transgenic mice. How this technology helps us ask and answer questions about key diseases affecting today's society is explained on Garvan's research pages on the website.

All organisations that conduct genetic manipulation research are required to comply with the Gene Technology Act 2000 and Gene Technology Regulations 2001. The aim of the legislation is to protect the health and safety of Australians and the Australian environment by identifying risks posed by, or as a result of gene technology, and to manage these risks by regulating certain dealings with genetically modified organisms (GMOs).

The Garvan Institutional Biosafety Committee (IBC) acts as an interface between organisations on the St Vincent's Research Precinct and the Office of the Gene Technology Regulator (OGTR). It assists with professional advice on the GMO research-related risks, which includes measures for their containment and compliance with the gene technology legislation. The IBC also helps identify and manage these risks; approves Garvan applications to conduct research that involves GMOs; keeps records of all approved dealings; and inspects facilities where research work involving GMOs is conducted and contained.

### **Stem cells**

The Garvan Institute conducts research on adult stem cells, a process that does not involve the creation or destruction of an embryo. Adult stem cells are non-specialised cells found throughout the body that divide and differentiate to replenish dying cells and regenerate damaged tissues.

### **Humans in research**

Garvan's research into the basis of disease and the clinical assessments of potential treatments necessitates the involvement of healthy volunteers and patients. These clinical research protocols are carefully reviewed, approved and monitored by the St Vincent's Hospital Human Research Ethics Committee, which operates in accordance with current NHMRC guidelines.

### **Animals in research**

Research using animals has made, and continues to make, a vital contribution to the understanding, treatment and cure of a range of major 21st century health problems including cancer, heart disease, arthritis, osteoporosis, autoimmune diseases, diabetes and mental illness.

While new methods have enabled scientists and medical researchers to reduce work involving animals, some work must continue for further fundamental advances to be made.

The Garvan Institute is committed to the principles of reduction, refinement and replacement; on each project it ensures that the number of animals used is minimised and that procedures, routines and husbandry are refined to maximise welfare. The Garvan also ensures that those researchers working with animals are aware of their responsibilities and receive appropriate training. Garvan encourages the development of alternative and complementary research methods such as computer modelling, tissue culture, cell and molecular biology.

The Garvan only uses animals in research programs that are of the highest quality and where no alternatives are available. All such work is carried out under licences issued by the Garvan/St Vincent's Animal Ethics Committee. The Garvan/St Vincent's AEC ensures that the use of animals is justified, taking into consideration the scientific or educational benefits and the potential effects on the welfare of the animals. The AEC fulfils all the requirements of the NHMRC and the NSW State Government.

The AEC, whose membership includes veterinary, animal welfare and lay representatives, also provides ethical advice on standards of animal care, welfare and housing. Veterinary and animal care staff who are actively involved in the care of animals provide ongoing advice and support to researchers where necessary.