

REGULATORY RESTRICTIONS ON THE IMPORTATION AND POSSESSION OF GENETICALLY MODIFIED ORNAMENTAL FISH

- It is currently illegal to import or possess genetically modified (GM) fish as they are subject to regulation under the Commonwealth *Gene Technology Act 2000* (the GT Act), and corresponding State and Territory legislation.
- Persons found to be in possession of GM fish without the requisite authorisation from the Gene Technology Regulator (the Regulator) may be subject to the following penalties: a maximum penalty of 2 years imprisonment or a \$55,000 fine, or a maximum penalty of 5 years imprisonment or a \$220,000 fine for an aggravated offence.
- The types of fish which are currently known to have GM versions are *Brachydanio rerio*, commonly known as zebrafish or danios, and *Oryzias latipes*, commonly known as Japanese rice fish, Japanese killifish, Japanese medaka or tooth-carp.
- Conventional (non-GM) zebrafish and Japanese rice fish are commonly used for ornamental purposes in aquaria. The GM fish have been modified to express fluorescent proteins that enhance their colour. They are sometimes referred to as GloFish® or fluorescent fish and they are available in a variety of different colours including red, green, orange and pink (see picture below).



(source: www.glofish.com)

- Some exporters have claimed that the colours are created by either dyeing the fish or feeding them hormones. However, further investigation has revealed that this information is incorrect and the fish are GM.
- Non-GM fish can be imported into Australia according to the quarantine regulations set by the Australian Quarantine and Inspection Service.
- An organisation that wished to use GM fish for research or for display purposes must comply with the requirements for Notifiable Low Risk Dealings (NLRDs) prescribed in the Gene Technology Regulations 2001 (the Regulations), which includes advising the Regulator. The fish would have to be held in a Physical Containment Level 2 (PC2) facility certified in accordance with guidelines issued by the Regulator.
- Information about NLRDs and certification requirements can be found on the following pages of the OGTR website: <http://www.ogtr.gov.au/gmorec/nlrd.htm> and <http://www.ogtr.gov.au/pubform/certification.htm#PC2> respectively.
- The importation of GM fish for commercial sale would be classified as a dealing involving the intentional release (DIR) of a GMO into the environment and would require a licence from the Regulator.

- A licence application must contain information required by the Act and the Regulations on the conventional organism, the effects of the genetic modification and potential interactions in the environment. The assessment process involves extensive consultation with a wide range of experts, agencies and authorities and the public. The statutory timeframe for considering such applications is 170 working days.
- Under the Act, risks posed to human health and safety and the environment must be assessed, and a risk management plan developed before a licence decision can be made. If identified risks can be effectively managed, a licence may be issued that would allow the commercial sale of GM fish.
- Licences are subject to statutory conditions specified in the Act, and the Regulator may impose additional conditions to manage identified risks.
- Information about the evaluation process for DIRs can be found on the following page of the OGTR website: <http://www.ogtr.gov.au/ir/process.htm> Applicants are advised to contact the OGTR prior to submitting their application.