



MONTEREY BAY
AQUARIUM

September 14, 2010

Aleta Sindelar, R.N.
Office of the Director
Center for Veterinary Medicine
Food and Drug Administration
7519 Standish Place
Rockville, Maryland 20855

Re. FDA Veterinary Medicine Advisory Committee (VMAC) hearing September 19-20, 2010. AquAdvantage genetically engineered salmon.

Dear Ms. Sindelar and VMAC members,

I am writing on behalf of the Monterey Bay Aquarium and its Seafood Watch program to oppose the approval of genetically engineered salmon, or any other genetically engineered aquatic species, for commercial fish farming production.

In assessing and evaluating the risks associated with the production of genetically engineered (GE) fish, the U.S. Food and Drug Administration (FDA) approval process and the required Environmental Assessment document both rely on three specific containment strategies: physical, geographical and biological.

The United Nations Food and Agriculture Organization (FAO) recommends that introductions of species for aquaculture should be considered as introductions to the wild – even if the facility is considered a closed system (FAO, 1995¹). Therefore we consider the likelihood of escape of GE salmon at some time in the future to be high.

Current methods available to fish farmers to produce sterile or reproductively non-viable fish (and therefore to achieve “biological containment”) are imperfect. The most common method, triploidy, is less than 100% effective. At 99% sterility, one fish in every hundred would not be sterile and could be reproductively viable. Production of GE salmon, even in its early stages, is likely to involve the production, shipping and growing of hundreds of thousands of eggs and fish. Therefore we must consider any escapes to potentially contain reproductively viable GE salmon.

Due to the largely unknown or incalculable risks associated with the introduction of (even small numbers of) reproductively viable GE fish into the wild, the Monterey Bay Aquarium’s Seafood Watch evaluation criteria for assessing sustainable aquaculture production methods are unable to adequately assess this as-yet-untested type of aquaculture.

¹ FAO, 1995, Code of Conduct for Responsible Fisheries, United Nations Food and Agriculture Organisation, Rome, Italy, 41pp.

Concerns about the genetic interaction of escaping domesticated farmed salmon with wild populations are well-documented in the scientific literature.

Taking into account the additional ecosystem risks associated with potential escape of GE fish, the Monterey Bay Aquarium opposes production of GE salmon or other aquatic species due to the inherent environmental risks involved.

Thank you for considering our views on this important issue. Please contact me if I can help by providing any further information.

Sincerely,

A handwritten signature in black ink that reads "P. Bridson". The signature is written in a cursive style and is underlined with a single horizontal stroke.

Peter Bridson,
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Seafood Watch Program
Center for the Future of the Oceans
Monterey Bay Aquarium
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