

AquaBounty Response to New Research by Memorial University

(Maynard, MA; May 29, 2013) AquaBounty Technologies Inc. (“AquaBounty”) responds to Oke KB, Westley PAH, Moreau DTR, Fleming IA. 2013 Hybridization between genetically modified Atlantic salmon and wild brown trout reveals novel ecological interactions. Proc R Soc B 280: 20131047.
<http://dx.doi.org/10.1098/rspb.2013.1047>.

Ron Stotish, CEO of AquaBounty, stated:

“We are pleased to see further independent research published using AquaAdvantage[®] Salmon. The authors used fertile AquaAdvantage[®] Salmon and mated them with brown trout in the laboratory to produce hybrids. The hybrids had characteristics expected of conventional inheritance from their parents. The authors point out such hybrids would be improbable in nature, but fail to mention such hybrids would also be unable to reproduce. Any interpretation of their data should also account for the all female triploid nature of AquaAdvantage[®] Salmon. It should be emphasized that this is a hypothetical study due to the biological and physical containment within which AquaAdvantage[®] Salmon will be raised.

“This latest study follows a series of previously published papers by Fleming and Moreau (co-authors of the research) showing reduced breeding efficiency of fertile AquaAdvantage[®] Salmon compared with non-transgenic comparators. It is important to note that AquaAdvantage[®] Salmon are all female, triploid, and required to be reared in contained land-based aquaculture systems. This fact must also be considered in any risk assessment model, and would appear to further reduce any concerns for potential environmental consequences.

“Brown trout and Atlantic salmon are known to be able to produce hybrid progeny. This paper confirms that AquaAdvantage[®] Salmon, like all Atlantic salmon, can be used to produce such hybrids, and that the presence of the transgene does indeed confer accelerated growth in hatchery conditions.

“It is worth noting that in 1995, Peter Galbreath and Gary Thorgaard of Washington State University published research that the Atlantic salmon brown trout hybrid is sterile. Such a hybrid would pose little ecological threat as the fish could not reproduce.

“Moreover, AquaBounty has stipulated that we will market only sterile, all female AquaAdvantage[®] Salmon – with specific tests being performed on every commercial batch of fish to assure our product meets our specifications. The FDA conducted a rigorous Environmental Assessment of AquaBounty salmon eggs, as required under the National Environmental Protection Act, and, in December 2012, published its draft Environmental Assessment of the salmon, which concluded with a “finding of no significant impact” (FONSI). In the FONSI, the FDA states that ‘No effects on stocks of wild Atlantic salmon are expected’ and that ‘...approval of the AquaAdvantage[®] Salmon...will not jeopardize the continued existence of United States populations of threatened or endangered Atlantic salmon or result in the destruction or adverse modification of their critical habitat, when produced and reared under the conditions described.’

