

Chronology of AquAdvantage® Salmon and AquaBounty Technologies

1989

- Initial R&D with transgenic salmon begins at Memorial University of Newfoundland.
- Canadian researchers create the AquAdvantage® transgene (genetic construct) which expresses Chinook salmon growth hormone under the control of an Ocean Pout promoter.
- The founder animal from which the AquAdvantage® line was derived was created by microinjection of the transgene into fertilized eggs of wild Atlantic salmon.

1992

- AquAdvantage® Salmon is established from the F1 generation of the EO-1α line.

1995

- A/F Protein (the corporate precursor to AquaBounty Canada) establishes an Investigational New Animal Drug (INAD) file with the Center for Veterinary Medicine (CVM) of the U.S. FDA to pursue the development of *AquAdvantage*® Salmon.

2000

- A/F Protein reorganizes; it changes its name to AquaBounty Farms (and changes the name of A/F Protein Canada to AquaBounty Canada), and it creates a subsidiary called A/F Protein (and A/F Protein Canada). It spins off A/F Protein as a separate entity. AquaBounty Farms, the surviving company, retains the AquAdvantage® technology.

2003

- AquaBounty Farms submits to the FDA its first regulatory study for a New Animal Drug Application (NADA).

2004

- AquaBounty Farms headquartered in Waltham, Massachusetts, changes its name to AquaBounty Technologies.



2006

- AquaBounty Technologies (ABTX) is listed on the London Stock Exchange's Alternative Investment Market (AIM) raising \$30 million in an initial public offering of stock.

2008

- The FDA inspects (and has no adverse findings) AquaBounty Canada's hatchery in PEI as an authorized production site for AAS eggs.
- AquaBounty Technologies begins construction of a land-based aquaculture grow out facility (AquaBounty Panama) in the highlands of Panama for the purpose of conducting trials of the Company's AquAdvantage® Salmon.

2009

- AquaBounty Technologies submits its final regulatory study to the FDA. CVM releases Guidance 187 for evaluation of genetically engineered animals.
- The FDA inspects (and has no adverse findings) AquaBounty Panama's site for the production of AquAdvantage® Salmon for import into the US.

2010

- AquaBounty Technologies receives section complete letters from the FDA on all seven parts of the New Animal Drug Application for AquAdvantage® Salmon.
- The FDA convenes a Veterinary Medicine Advisory Committee (VMAC), a public meeting to review its findings of AquAdvantage® Salmon, concluding it is indistinguishable from Atlantic salmon, is safe to eat, and that it poses no threat to the environment under its conditions of use.
- The VMAC concurs with the FDA; AquAdvantage® Salmon is safe to consume and safe for the environment.

2011

- The FDA consults with the National Marine Fisheries Service of NOAA and the U.S. Fish and Wildlife Service, which concur with the FDA's "no effect" findings that the AquAdvantage® Salmon does not pose a threat to the environment.



2012

- The FDA releases its draft environmental assessment (EA) with a preliminary Finding of No Significant Impact (FONSI) for AquaAdvantage® Salmon.
- The FDA announces a 60-day public commentary period, later extended to 120 days, for the EA and FONSI.
- The FDA visits and inspects AquaBounty Canada's hatchery in PEI. There were no adverse findings.

2013

- The public-comment period for the draft EA and FONSI concludes in April.
- Publication of a Significant New Activity Notice by Environment Canada. AquaBounty Technologies receives authorization to produce eggs at AquaBounty Canada's hatchery for commercial sale. Environment Canada advises AquaBounty Technologies that based on the current proposal in the New Substances Notification (Organisms), AquaAdvantage® Salmon is not considered to be a risk to the environment.



Size comparison of an AquaAdvantage® Salmon (background) vs. a non-transgenic Atlantic salmon sibling (foreground) of the same age