

## Kelly Maria

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**From:** karen dichari <kdichari@hotmail.com>  
**Sent:** Tuesday, March 19, 2013 9:54 AM  
**To:** Kelly Maria  
**Subject:** HB 3177, HB2530 & HB2175

Please submit the following testimony into the record concerning HB 3177, HB2530 & HB2175. Respectfully submitted by Karen Dichari

The U.S. biotechnology firm, AquaBounty, has designed a fish that would look like its natural Atlantic salmon cousin yet reach market size in half the time. In its recent assessment, the FDA declared that the all-female, sterile salmon would have "no significant food safety hazards or risks." Still, some environmentalists remain concerned, suggesting that the meat would be nutritionally inferior and contain harmful hormones. They also warn that a small percentage of the "frankenfish" could remain fertile and escape into the wild.

There is still a brief period to voice objections, but Dr David Edwards of the Biotechnology Industry Organization is certain of the outcome: "From my read of the review it looks like it should be approved." The AquAdvantage salmon, reared from the eggs of wild Atlantic salmon, sports some extra genes from the Pacific Chinook salmon and an eel, the ocean pout. Together they make the fish grow faster and all-year round.

ABC <http://abcnews.go.com/Health/genetically-modified-frankenfish-nears-fda-approval-debate-heats/story?id=18078157> [http://www.huffingtonpost.com/2012/12/04/aquabounty-gmo-salmon\\_n\\_2238050.html](http://www.huffingtonpost.com/2012/12/04/aquabounty-gmo-salmon_n_2238050.html)

According to its mid-year financial report, Aquabounty had less than \$1.5 million in cash and stock. And it has no other products besides genetically modified salmon in development.

In February, the cash-strapped company agreed to sell its research and development arm to its largest single shareholder, Kakha Bendukidze, a former Republic of Georgia finance minister turned investor, in return for his help raising \$2 million in cash to stay afloat. Aquabounty's CEO Stotish fretted that Bendukidze, who controlled nearly 48 percent of Aquabounty's public stock, would move the company overseas. But in October Bendukidze's investment fund sold its shares to Intrexon, a biotech firm headquartered in Germantown, Md. Stotish views the sale as a positive development, but he still worries that the U.S. government is unwilling to approve the technology at the heart of his company's work.

"This is about more than Aquabounty and more than salmon," Stotish says. "And shame on us if we allow this to slip away because of partisan bickering and people who oppose new technology."

[http://www.huffingtonpost.com/2012/12/04/aquabounty-gmo-salmon\\_n\\_2238050.html](http://www.huffingtonpost.com/2012/12/04/aquabounty-gmo-salmon_n_2238050.html)

[http://www.centerforfoodsafety.org/wp-content/uploads/2013/02/CFS\\_FSR\\_GE\\_Fish.pdf](http://www.centerforfoodsafety.org/wp-content/uploads/2013/02/CFS_FSR_GE_Fish.pdf)

30 House members and 14 US Senators have written to the White House expressing their opposition to the addition of GE salmon into the nation's food supply.

As recently as one month ago, CBS News spoke to executives of AquaBounty about its genetically modified salmon and the company's financial woes. Speaking to the drawn-out FDA approval process and all the negative PR from the GE salmon initiative, AquaBounty CEO Ron Stotish claimed that his company was only 30 days away from requiring a cash infusion to stay afloat.

"It's threatening our very survival," he told CBS News, "We only have enough money to survive until January 2013, so we have to raise more. But the unexplained delay has made raising money very difficult." Only days after the interview, AquaBounty announced that it had received a \$500,000 loan from an existing investor. The loan would allow the company to stay afloat until March 2013.

Illustrating just how slow the FDA has moved, AquaBounty originally reached out to the FDA for



Dear Dr. Hamburg:

Last week, Canadian fisheries authorities revealed that the AquaBounty facility that is rearing the AquaAdvantage salmon, which FDA is considering approving, had problems with Infectious Salmon Anaemia (ISA) in 2009 before the FDA hearing on the approval of the fish in September 2010. None of the material presented in the VMAC hearing mentioned that the Prince Edward Island facility had tested positive for ISA the year before the hearing. In fact, the VMAC Briefing document on page 23 says:

**b. Specific Facility Conditions**

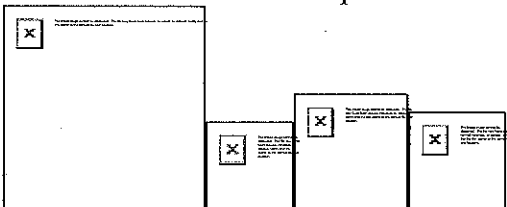
The PEI facility is an aquaculture facility almost entirely dedicated to hatchery operations. The facility is licensed by the Canadian Department of Fisheries and Oceans (DFO) and is certified as disease-free under Schedule II of the Canadian Fish Health Protection Regulations (FHPR), C.R.C., c. 812. Schedule II pathogens include, among others, those that cause: viral hemorrhagic septicemia (Egtved virus, VHSV), infectious hematopoietic necrosis (IHNV), infectious pancreatic necrosis (IPNV), whirling disease (Myxobolus cerebralis), ceratomyxosis (Ceratomyxa shasta), furunculosis (Aeromonas salmonicida), and enteric redmouth disease (Yersinia ruckeri).

We know now that this statement misrepresented the actual disease situation at the facility. A 2009 memo from Fisheries and Oceans Canada (DFO) entered into evidence at Canada's federal Cohen Inquiry into the collapse of Fraser River sockeye on Thursday, Dec. 15, 2011 reveals that salmon at the AquaBounty facility in Prince Edward Island tested positive for the Infectious Salmon Anaemia (ISA) virus in November 2009. An email from a senior DFO fish health official notified the Canadian Food Inspection Agency of the positive test results (attached).

AquaBounty has promoted that its system is a safer facility and less prone to disease than typical salmon culture facilities. The presence of ISA in its facility undermines this claim. Unless the ISA came through water pumped to the facility from the nearby sound, the virus could only have entered its closed facility through eggs or smolts. The presence of ISA in AquaBounty's eggs means that they should not be shipped across the US without evidence of rigorous testing and certification by the Canadian authorities that they are free of the disease, even if the ultimate destination is Panama. A real possibility exists that ISA from the AquaBounty facility could infect Atlantic salmon in Canada and an accident in shipping the eggs to Panama could infect wild or cultured US salmonid fishes.

In the notification to the Canadian food health authority, DFO notes that based on molecular strain testing at two separate laboratories, the virus appears to be a new strain of ISA. The email also states: "With respect to international exports of live fish or eggs from this facility, DFO would identify that the facility has tested positive for ISA should we be asked to sign a fish health certificate for export."

It is disturbing that this email is from 2009, prior to the VMAC hearing. If the FDA had this in its files, it should have revealed this at the VMAC hearing. If the company did not reveal to the FDA that their eggs had tested positive for ISA, we would hope that the FDA would demand from the company all testing data from its facilities in both Canada and Panama. We note also that the Panamanian Aquatic Resources Agency ordered AquaBounty to destroy the fish that it had raised in Panama. This makes us wonder if the Panamanian authorities had received reports of ISA in the eggs being produced in Canada and shipped to Panama.



We urge you to release promptly all data that have been received by the FDA on the health of the AquaAdvantage fish so that the public can have a chance to review and assess these data. We ask that you suspend any and all steps towards approval until both this information is disclosed and FDA's prior knowledge of this information is fully investigated.

Finally, we urge your agency to conduct an Environmental Impact Statement that looks at the full range of environmental risks posed by approval – including risks of spreading diseases, like ISA, antibiotic use, and the full environmental impacts of full-scale commercialization of genetically engineered fish – before making a



final decision on the approval of the AquAdvantage salmon.

Sincerely,

Andy Kimbrell

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<http://www.aquabounty.com/investors/bod-300.aspx#stotish> <http://www.naturalcuresnotmedicine.com/2013/03/entire-countries-are-banning-gmos-still.html> <http://ge-fish.org/> <http://www.centerforfoodsafety.org/wp-content/uploads/2012/02/FDAFoodAdditivePetitionGESalmon.pdf> [http://www.centerforfoodsafety.org/wp-content/uploads/2013/02/CFS\\_FSR\\_GE\\_Fish.pdf](http://www.centerforfoodsafety.org/wp-content/uploads/2013/02/CFS_FSR_GE_Fish.pdf)

