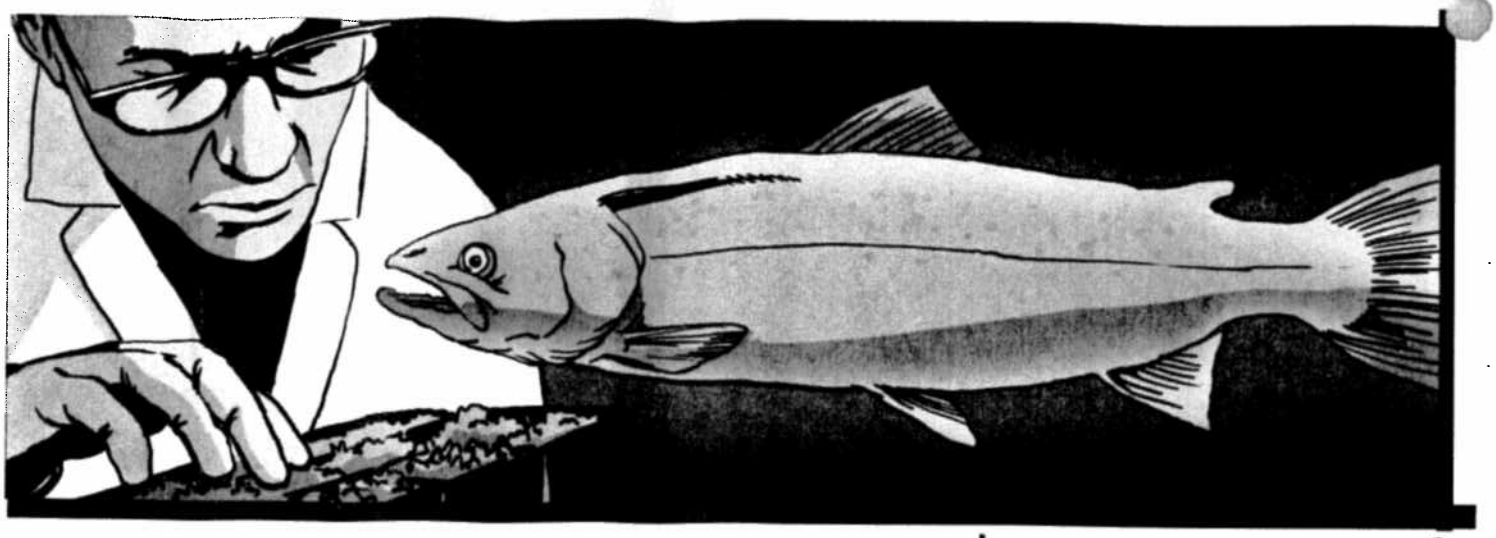
SCIENCE, TECHNOLOGY AND THE ENVIRONMENT

SUPERFOOD OR FRANKENFOOD?

– THE DEBATE OVER GENETICALLY MODIFIED SALMON



Salmon on the menu tonight? Sounds delicious! But would you be as eager to dig in if you knew that the fish – which looks and tastes like a regular salmon – had been partially created in a laboratory?

INTRODUCING... SUPERSALMON!

AquaAdvantage salmon are Atlantic salmon that have had their **genes** altered so they grow faster and larger than normal. These fish are like their wild counterparts in every way, except that they reach maturity in 18 months instead of three years.

AquaBounty Technologies, an American company, has been trying for 15 years to get approval from the United States government to sell its supersalmon to U.S. consumers. And a **preliminary** report released by the U.S. Food and Drug Administration in September seemed to indicate that the company might soon get its wish.

"[The fish] appear to be as safe to eat . . . as other Atlantic salmon," stated the report. Final approval has yet to be granted – but if it is, Americans could find genetically modified (GM) salmon on their dinner plates in as little as two years.

A CONTROVERSIAL TOPIC

GM foods – sometimes dubbed 'Frankenfoods' – are nothing new. Farmers have been growing GM plant crops since the 1990s. Today, about 80 percent of processed foods sold in the U.S. – and about 60 percent in Canada – contain GM ingredients. But if AquaAdvantage salmon is passed by the FDA, it will be the first time that a genetically modified animal has been approved for human **consumption**. And that could open the doors to other GM animal foods in the supermarket as well.

The prospect has critics worried. One problem, they say, is that there's no proof that GM salmon are safe to eat. More long-term studies are needed to find out whether these gene-altered animals contain dangerous allergenic or **toxic compounds**.

"The United States could be approving a genetically engineered fish with really **inadequate** data, and . . . this opens the door to other genetically engineered animals," says Lucy

HOW TO MAKE A SUPERSALMON

AquaBounty's salmon were first conceived of by researchers at Memorial University in Newfoundland.

The fish grow so big, so fast because genetic engineers added a growth hormone from Chinook salmon that allows the Atlantic species to produce growth hormone all year long, not just some of the time. The hormone is kept active through the addition of another gene from an eel-like fish called an ocean pout. It acts like an 'on' switch for the hormone.

DEFINITIONS

CONSUMPTION: the process of taking food into the body through the mouth; eating

GENES: hereditary units consisting of a sequence of DNA that occupies a specific location on a chromosome and determines a particular characteristic in an organism

INADEQUATE: lacking the qualities or resources to meet a task

PRELIMINARY: something that serves as a preceding event or introduces what follows

TOXIC COMPOUNDS: poisonous substances