Captain Birdseye's robotic nose

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The Captain can't freeze smelly fish that's past its best – and Icelandic scientists can now help him out by detecting the levels of stench-making bacteria faster than ever before.

The research in the Royal Society of Chemistry's Journal of Environmental Monitoring reports a new method to detect bacteria that break down dead fish and produce the distasteful smell of rotting fish.

It opens the door to a standard of quality control even higher and speedier than the finely-tuned nose of the bushy-bearded Birdseye.

Using a technique based on the polymerase chain reaction (PCR), Eyjófur Reynisson and colleagues from Matis-Icelandic Food Research, Reykjavik, can assess the levels of bacteria in a sample in just five hours.

This is four times faster than the current quickest method, which involves traditional cultivation of the bacteria Pseudomonas, the root cause of stinking fish.

"The short detection time will provide the fish industry with an important tool for monitoring contamination by spoilage bacteria," said Paw Dalgaard, an expert in seafood spoilage from DTU Aqua, Kongens Lyngby, Denmark.

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