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Aquafeeds

# Canada's CFIA approves KnipBio Meal as a salmon feed ingredient

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By Responsible Seafood Advocate

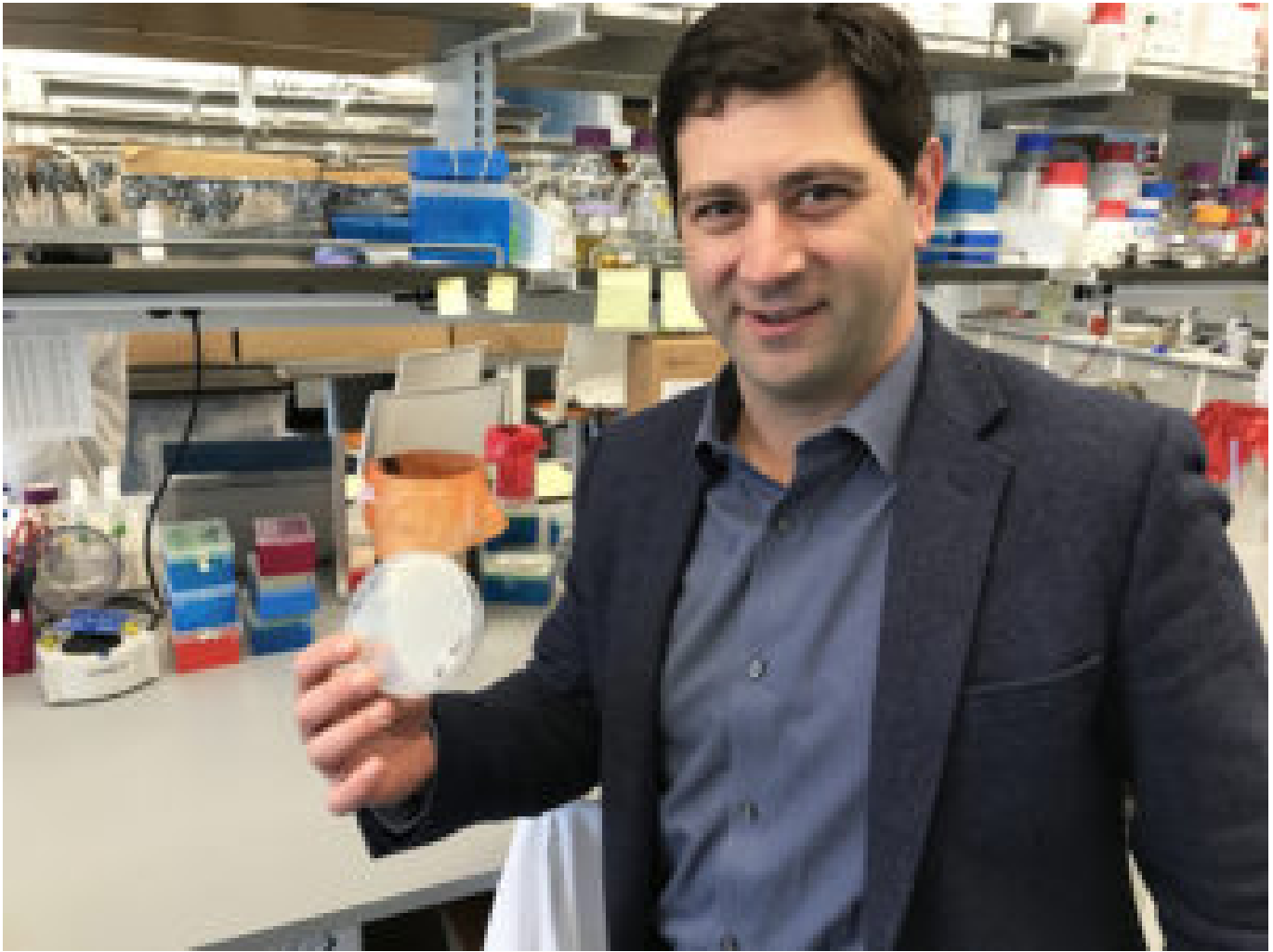
## Single-cell protein, already FDA approved, clears another major regulatory hurdle

The Canadian government has approved a single-cell protein from U.S. biotechnology company **KnipBio** (<http://www.knipbio.com>) for inclusion in farmed salmon feeds.

Thanks to the Canadian Food Inspection Agency (CFIA) ruling, farmers in one of the world's largest salmon-producing nations can now include KnipBio Meal (KBM) in feeds for all salmonids.

"On June 8, 2022, the CFIA approved the Single Cell Protein meal derived from *Methylobacterium extorquens* for salmonid fish," a spokesperson from CFIA told the *Advocate*. "This ingredient is approved for use in salmonid feeds as a source of protein, in an amount not to exceed 10 percent of the total diet. The company KnipBio Inc. obtained a CFIA registration for their source of this ingredient."

KBM is already approved by the U.S. Food and Drug Administration, gaining GRAS (Generally Recognized As Safe) designation for finfish and shrimp feeds in 2019, becoming the **first single-cell protein** (<https://www.globalseafood.org/advocate/single-cell-protein-aquafeed-ingredient-first-gain-gras-designation/>), to do so. KBM is now approved in multiple markets for multiple species.



The Canadian government has approved a single-cell protein from U.S. biotechnology company KnipBio for inclusion in farmed salmon feeds. KnipBio CEO Larry Feinberg is pictured in his laboratory in Lowell, Mass., USA. Photo by James Wright.

An advertisement banner for AquaBounty. On the left, a dark blue box contains the text "SUSTAINABILITY NEVER TASTED SO GOOD" in white. In the center is a photograph of a cooked salmon fillet on a white plate, garnished with green leafy vegetables and a slice of lemon. On the right, the AquaBounty logo is displayed in blue, with a white button below it that says "DISCOVER WHY" in blue text.

**SUSTAINABILITY**  
NEVER TASTED SO GOOD

AquaBounty

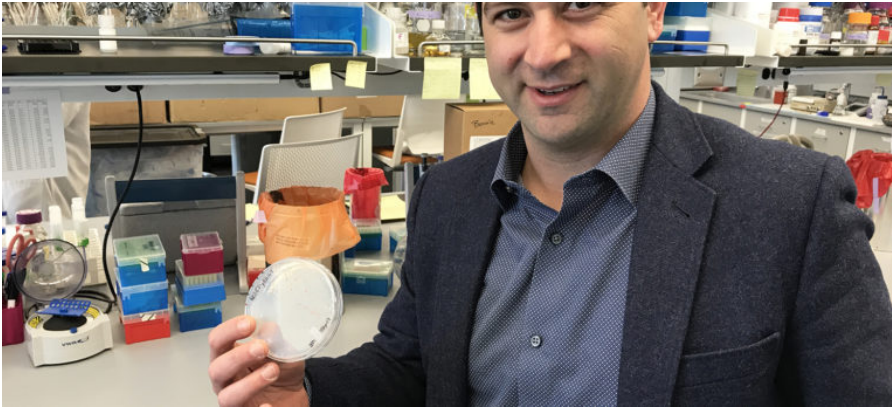
DISCOVER WHY

(<https://aquabounty.com/>).

The CFIA approval process was complex, but the ruling will make conducting business across the North American aquaculture market “much easier,” company CEO Larry Feinberg said.

“CFIA designation is a clear indicator that a feed ingredient is effective and safe. This third approval is another important milestone for our company and moves us significantly ahead in producing healthier feed for healthier fish,” said Feinberg. “We are proud to be the first American company to invest in the scientific research necessary to receive this designation for aquafeed, and we are committed to building

consumer confidence and trust in the safety and quality of our industry. We believe this CFIA approval, alongside FDA GRAS approvals, uniquely positions us to further penetrate the \$50 billion global aquafeed market.”



## The pink powder that could revolutionize aquaculture

KnipBio, a Massachusetts-based biotechnology startup founded in 2013, is refining the manufacturing process for a promising aquaculture feed ingredient that may one day form the foundation of the food that farmed fish eat.



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KBM is derived from the single-cell organism methylobacterium (*Methylobacterium extorquens*), a symbiont that grows on plant leaves. In KnipBio's R&D lab and production facilities in Lowell, Mass., USA, the organism feeds on methanol, which is derived from low-cost and sustainable feedstocks, and then undergoes an industrial fermentation process in just a couple of days. The meal is the dried and processed form of the biomass.

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## Author

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RESPONSIBLE SEAFOOD ADVOCATE

[editor@globalseafood.org](mailto:editor@globalseafood.org) (<mailto:editor@globalseafood.org>).

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