KnipBio Announces Breakthrough Aquafeed Ingredient Development

(Lowell, MA) February 16, 2018. – KnipBio, Inc. announced today it has successfully developed a line of KnipBio Meal™, the company’s premium aquafeed ingredient, that contains bio-astaxanthin, the carotenoid that gives salmon, rainbow trout, and shrimp significant health benefits as well as their characteristic pink color. KnipBio’s product is created from a strain of the microorganism Methylobacterium extorquens that produces astaxanthin in commercially relevant quantities. This breakthrough provides the aquaculture industry a new source of biologically produced astaxanthin that is competitively priced with synthetic versions of the product derived from petrochemicals.

According to Larry Feinberg, CEO of KnipBio, “For several years our research team has been working on a new technology for the aquaculture industry that we call ‘PROTEINplus’. Unlike other fishmeal alternatives that are simple bulk protein replacements, our PROTEINplus platform couples immunonutrients with premium protein to make KnipBio Meal a superior feed ingredient. We have now developed a proprietary biological pathway that allows our microbe to produce astaxanthin in concentrations that make it effective for salmon and other species at inclusion rates of 5% or less of a formulated feed. This is great news for salmon, trout, and shrimp farmers looking for an affordable and natural alternative to synthetic astaxanthin. It’s also great news for consumers, as our research shows they prefer food products made from natural ingredients.”

Astaxanthin is an antioxidant approved as an additive for salmon, trout, and shrimp whose reported health benefits in animals include faster growth, better feed conversion rates, improved disease resistance, and reduced embryonic mortality. The aquaculture industry currently consumes more than $300 million per year of this carotenoid. Naturally-derived astaxanthin is more easily digested and absorbed by fish than synthetic versions but production challenges have made it significantly more expensive. KnipBio’s astaxanthin product will be the first new natural source in over a decade and is produced via a fermentation process using low-cost and readily available ethanol, methanol, and other waste feedstocks.
Feinberg added, “In addition to astaxanthin, our new strain is a source of powerful immune-boosting prebiotic compounds and proteins that closely resembles the amino acid profile of fishmeal. The combination of premium proteins plus immunonutrients plus natural astaxanthin is an ideal solution for salmonid and shrimp aquaculture. In fact, this trifecta of benefits could be the ‘killer app for aquaculture’. We are continuing to advance our technology and believe even higher performing strains may soon be within reach. Additionally, we are planning a series of feed trials with industry partners to compare KnipBio Meal’s digestibility, tissue deposition, and retention against synthetic and other natural forms of astaxanthin. We expect these trials to demonstrate the health benefits of our ingredients and confirm the validity of our PROTEINplus strategy.”

About KnipBio: KnipBio, Inc., is a Massachusetts-based company pioneering advanced nutritional solutions for animal feeds from sustainable and responsible feedstocks. Using innovative biotechnology, the company has developed KnipBio Meal- a range of premium aquafeed ingredients built around the company’s ‘PROTEINplus' technology that combine immunonutrients with single cell protein. KnipBio is committed to maintaining a level of transparency to promote sustainable and environmentally sound practices. For more information, visit www.knipbio.com or contact us at info@knipbio.com

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