May 2, 1994

Mr. Robert E. Harris

Technology Administrator

Alaska Science & Technology Foundation

4500 Diplomacy Drive, Suite 515

Anchorage, Alaska 99508-5918

Dear Mr. Harris:

RE: ASTF Proposal Number 94-1-015

Use of Enzyme, Digestase, in Production of Pink Salmon Ikura

On behalf of the Alaskan-Russian Caviar Company, I feel I must comment on a couple of the stated reasons for the denial of funding, as noted in your letter to us dated April 25, 1994.

We all know that the historical and obvious Alaska market for Ikura is Japan. In fact, *IKURA* is a Russian word for single egg salmon roe developed initially by and for the Russian market. In as much as Alaska's salmon roe business has for years been controlled by Japanese firms by and for the Japanese market, we have had no other market than Japan. Something approaching 99% of Alaska's salmon roe is sold by U.S. producers to the Japanese as "green roe", resulting in minimal economic benefit to Alaskan's. With literally all Alaska's roe sold to the Japanese, manufacturing methodologies and final product specifications have and are dictated by those in control. The hundreds of Japanese roe technicians required in Alaska each year ensure continued control of the resource, processing technology and markets.

I recall clearly a similar situation just a few years ago when the Japanese flat out said that Americans could not make surimi and certainly could not meet Japanese market specifications. Times have changed and much "American-developed" surimi processing technology is now practiced by the Japanese. Belief in ourselves rather than those who controlled the world's surimi industry resulted in a U.S. industry now grossing over $2 **billion** annually.

Though Japan is the largest market for ikura, the reasons include resource, specification and manufacturing control. Another is that the Japanese consumer has been able to afford the outrageous costs of ikura at the retail level. The costs are real. Hundreds of Japanese technicians in Alaska annually, a hands-on art-like and secretive processing methodology, low yields caused by grading and the processing technique; and a multi-layered Japanese distribution system all add up to a very expensive finished product. Times are changing, even in Japan's once booming economy. Like consumers everywhere. They no longer can afford the prices once commonplace. Rather they are forced to look for **convenience, value** and **taste**.

Ikura from pinks, many times the potential volume from Chum salmon, offer Alaska the opportunity to broaden the market and significantly lower the cost to the ultimate consumers, both in Japan and elsewhere (perhaps by as much as 50%). Markets other than Japan (the U.S., Europe and Russia) are less knowledgeable of the product and are open to ikura that taste good and is less expensive. It's the old "chicken-egg" market conundrum.

Because they are "physical", traditional ikura manufacturing methodologies have not worked on the smaller pink salmon roe. That is the beauty of using a chemical technology. Smaller roe could be processed as easily as large, and one would not experience the 20-25% yield losses caused by the "rubbing" of the skein against a separation screen.

Lastly, you note one of the reasons for denial of funding was because the *digestase* had to be imported, production could be disrupted and future growth possibly limited. While this is obviously true, should the technology prove successful and larger markets established, there would logically be reasons to begin the manufacture of digestase in Alaska. We have hundreds of tons of suitable crab waste raw materials available, one of the partners in the Alaska-Russian Caviar Company knows how to manufacture digestase (being one of the original patent holders) and manufacture only awaits the growth of market opportunities as this would attempt to create.

The Alaska salmon industry is in crisis - at the harvest and market levels. This is a result of limited market vision, newly arisen competition from farmed fish and wild stocks from the Russian Far East, and that the Alaska industry has heretofore not needed to maximize economic value from the entire salmon. Any and everything the industry can do to return increasing economic return from the 110 million pink salmon returning yearly to Alaska's rivers is necessary for industry survival. Though you recommended against reapplication, we would appreciate if you could share these thoughts with ASTF's Board in the hope that reconsideration may make sense.

Sincerely,

Jack McMahon, President

Alaskan-Russian Caviar Company

CC: S. Sova

C.K. Mitchell