NOTICE OF INTENT TO AWARD

This notice is not a request for applications. This provides public notice of the Bureau of Reclamation's intention to fund the following project activities without full and open competition.

OPPORTUNITY NUMBER	BOR-DO-19-N020
PROJECT TITLE	Eradication of Invasive Quagga and Zebra Mussels Using Engineered Disseminated Neoplasia
RECIPIENT	Biomilab, LLC
ANTICIPATED FEDERAL AMOUNT	$1,500,000.00
STATUTORY AUTHORITY	**Public Law 111-11, Section 9509, Research Agreement Authority.** *The Secretary may enter into contracts, grants, and cooperative agreements, for periods not to exceed 5 years, to carry out research within the Bureau of Reclamation.*
CFDA NUMBER	15.560
RECLAMATION POINT OF CONTACT	Irene M. Hoiby 303-445-2025
SUMMARY OF PROJECT ACTIVITIES	Under this Agreement, Biomilab, LLC. shall work to engineer normal quagga and zebra mussel hemocytes into "induced" DN cells (iDNCs) that can be used to transmit and foster lethal cancer into populations of these invasive species in open waters. Major tasks for the project include, but are not limited to: • Establish a facility for the maintenance of live zebra and quagga mussels • Determine methods and conditions for extended culture of explanted and dissociated mussel cells, and establish methods for their genetic modification • Determine methods for the transplantation/engraftment and survival of cultured cells to live mussels and complete characterization of target genes and gene products for use in genomic modification • Convert dreissenid mussel hemocytes to genetically-modified hemic disseminated neoplasia cells (iDNCs) and establishment of methods for long-term culture, expansion, and cryopreservation of iDNCs • Introduction of iDNCs to live quagga/zebra mussels and control mussels, and analysis of engraftment, dissemination, and toxicity
SELECTION JUSTIFICATION	*Reclamation did not solicit full and open competition for this award based on the following criteria*: Unique Qualifications The Recipient, Biomilab, Inc., is uniquely qualified to conduct the proposed project activities. The co-founders of Biomilab are wholly responsible for development of the idea of engineering induced disseminated neoplasia cells

	(iDNCs) from quagga and zebra hemocytes, which forms the basis of this project. For development of this concept they were selected as a winning solution in the Reclamation administered "Eradication of invasive Mussels in Open Water" prize competition. They were the only solution awarded a full prize in the competition. In addition to ideation of this project, Biomilab's staff have over 50 years of combined experience with cell cultures from a variety of species. This expertise with a wide variety of cell culture types and techniques is unparalleled and is fundamental to the successful accomplishment of the project activities. Biomilab is also physically located in Michigan, where live quagga and zebra mussels can be readily collected. Biomilab has already received regulatory approval to collect and house these invasive mussels. This availability of mussels and regulatory approval for their collection and use is necessary for the proposed activities and would not be available in other locations.