

Idaho Incubation Fund Program

Final Report Form

Proposal No. IF11-010
Name: Alok Bhushan
Name of Institution: Idaho State University
Project Title: Development of a novel drug to test pancreatic cancer

Information to be reported in your final report is as follows:

1. Provide a summary of overall project accomplishments to include goals/milestones met, any barriers encountered, and how the barriers were overcome: **The project has three major goals. The first goal was to synthesize adequate quantities of drug to carry out animal studies. We have accomplished that but as studies progress we will need to synthesize more quantities of drug. The second goal was to study the efficacy of the drug in pancreatic cancer animal model. These studies have begun and it takes 6 months to complete these studies. Our first study with animals has shown positive results. We are in a process of repeating these studies. The third goal is to determine drug's biological effects on pancreatic cancer cells. These studies are also continuing.**
2. Describe the current state of the technology and related product/service: **The 5-years survival rate for the pancreatic cancer is about 4%. The patients are treated with gemcitabine, 5-fluorouracil and gefitinib but that extends the life of the patients for a short period of time. We have data that this chemical entity has potential to be a chemotherapeutic agent for treatment of pancreatic cancer.**
3. List the number of faculty and student participants as a result of funding: **Alok Bhushan, James C.K.Lai, Byron Bennett, Satya Talinanda and Lindsey Dickerson.**
4. What are the potential economic benefits: **If the drug is approved, it will certainly benefit the university. However, it is important to emphasize that these drug development projects take time and resources. We need to ensure the pharmacokinetic studies are successful in future.**

5. Description future plans for project continuation or expansion: **Our goal is to complete the studies proposed in the proposal and we have applied for a Phase 2 studies for this project to the HERC so that we pursue this project to a point that we apply for the patent. We also intend to have a pre-IND meeting with FDA.**
6. Please provide a final expenditure report (attached) and include any comments here:

We are still continuing the experiments and hope to have all data by the end of August. Majority of funds were used for supplies and student support. Approximate numbers are shown in the tables. We have unused \$4,000 and will be used by end of summer to complete the studies.

7. List invention disclosures, patent, copyright and PVP applications filed, technology licenses/options signed, start-up businesses created, and industry involvement: **The invention disclosure is at the research office at ISU. We have not applied for patent but we plan to contact industry in the coming months to pursue this project.**
8. Any other pertinent information: **Our results have been positive. We have shown that the agent is active in the animal models; however, we are continuing another set of experiments. We have submitted another proposal to continue these studies due to the positive results. We had a conference call with Mr. Earl Sullivan. On his recommendation, we applied for Phase II for this proposal to the Incubation funds. After discussion with Mr. Sullivan, we plan on arranging a Pre-IND meeting with FDA and also meet pharmaceutical companies for support to advance this project. It is important to emphasize that the poor prognosis of the pancreatic patients makes it ethically necessary to pursue this project at a faster pace.**

FINAL EXPENDITURE REPORT

A. FACULTY AND STAFF		
Name/Title	\$ Amount Requested	Actual \$ Spent
	0	0
B. VISITING PROFESSORS		
Name/Title	\$ Amount Requested	Actual \$ Spent
	0	0
C. POST DOCTORAL ASSOCIATES/OTHER PROFESSIONALS		
Name/Title	\$ Amount Requested	Actual \$ Spent
	0	0
D. GRADUATE/UNDERGRADUATE STUDENTS		
Name/Title	\$ Amount Requested	Actual \$ Spent
Satya Talinada/student and Lindsey Dickerson/Student	16253	3200
E. FRINGE BENEFITS		
Rate of Fringe (%)	\$ Amount Requested	Actual \$ Spent
	1447	400
PERSONNEL SUBTOTAL:		
F. EQUIPMENT: (List each item with a cost in excess of \$1000)		
Item/Description	\$ Amount Requested	Actual \$ Spent
1.	0	0
2.		
3.		
4.		
EQUIPMENT SUBTOTAL:		0
G. TRAVEL		
Description	\$ Amount Requested	Actual \$ Spent
1.	0	0
2.		
3.		
TRAVEL SUBTOTAL:		0

H. PARTICIPANT SUPPORT COSTS:			
Description		\$ Amount Requested	Actual \$ Spent
1.		0	0
2.			
3.			
PARTICIPANT SUPPORT COSTS SUBTOTAL:			
I. OTHER DIRECT COSTS:			
Description		\$ Amount Requested	Actual \$ Spent
1.	Supplies, animals and animal care	32,300	42,000
2.			
3.			
OTHER DIRECT COSTS SUBTOTAL:			
TOTAL COSTS (Add Subtotals):		32,300	42,000
TOTAL AMOUNT REQUESTED:			50,000
TOTAL AMOUNT SPENT:			45,600