

Idaho Incubation Fund Program

Final Report Form

Proposal No. IF11-018
Name: Dave McIlroy/Gustavo Arrizabalaga
Name of Institution: University of Idaho
Project Title: Bone Growth Prostheses

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:

Optimal coatings on the nanosprings were established to promote bone growth in 1/3 the time of the normal control in cell tissue cultures. The hardness and stiffness of the nanospring mat was found and proven to be good. We were able to grow nanosprings on both titanium and medical grade stainless steel veterinary orthopedic plates.

A student team developed a business plan based on this technology and won 3rd place in the U of I View Innovative Technology category.

2. Describe the current state of the technology and related product/service:

The current state of the technology is entering the live animal pilot-testing phase. We are now optimizing the nanospring survival in screw placement in dry dead bone. A new Idaho company launched from this technology, MJ3 Industries LLC, will be performing the animal study under an option agreement with the University.

3. List the number of faculty and student participants as a result of funding:

(1) Jamie Hass, PhD student.

4. What are the potential economic benefits:

Potential economic benefits for Idaho are that a small business was formed with the prospect of employing high tech personnel, bringing medical base technology to the state. The osseointegration technology has the ability to lower overall costs of orthopedic surgeries because of decreasing failure rates and shortening time of healing of these implants.

5. Description future plans for project continuation or expansion:

Future plans are to continue to pursue collaborative grant funding (SBIR and STTR) for U of I and MJ3 Industries. U of I McIlroy group will improve on the nanospring technology. As stated in #2, the pilot animal study is planned to start this summer through the Idaho based small business. Submitted a Keck grant May 2012 for funding on this project.

6. Please provide a final expenditure report (attached) and include any comments here:

7. List invention disclosures, patent, copyright and PVP applications filed, technology licenses/options signed, start-up businesses created, and industry involvement:

Patent pending; is published and PCT has been done. There will be an option agreement between U of I and MJ3 Industries for the animal studies and a possibility for a commercial license agreement. MJ3 Industries has been formed from this technology and grant funding. It is based out of Cataldo, Idaho.

8. Any other pertinent information:

FINAL EXPENDITURE REPORT

A. FACULTY AND STAFF		
Name/Title	\$ Amount Requested	Actual \$ Spent
B. VISITING PROFESSORS		
Name/Title	\$ Amount Requested	Actual \$ Spent
C. POST DOCTORAL ASSOCIATES/OTHER PROFESSIONALS		
Name/Title	\$ Amount Requested	Actual \$ Spent
D. GRADUATE/UNDERGRADUATE STUDENTS		
Name/Title	\$ Amount Requested	Actual \$ Spent
Jamie Hass/Graduate research assistant	32,000	24,003.20
TBD (Summer Intern)	3,000	0
E. FRINGE BENEFITS		
Rate of Fringe (%)	\$ Amount Requested	Actual \$ Spent
Jamie Hass/Graduate research assistant	1,000	693.06
Summer Intern	100	0
PERSONNEL SUBTOTAL:	36,100	24,696.26
F. EQUIPMENT: (List each item with a cost in excess of \$1000)		
Item/Description	\$ Amount Requested	Actual \$ Spent
1.microwave oven	0	62.54
2.		
3.		
4.		
EQUIPMENT SUBTOTAL:	0	62.54
G. TRAVEL		
Description	\$ Amount Requested	Actual \$ Spent
1.		
2.		
3.		
TRAVEL SUBTOTAL:		

H. PARTICIPANT SUPPORT COSTS:		
Description	\$ Amount Requested	Actual \$ Spent
1. Tuition	0	6346.00
2. Publication	900.00	1880.00
3.		
PARTICIPANT SUPPORT COSTS SUBTOTAL:	900.00	8226.00
I. OTHER DIRECT COSTS:		
Description	\$ Amount Requested	Actual \$ Spent
1. analytical services, research supplies	14,000.00	16,540.49
2.		
3.		
OTHER DIRECT COSTS SUBTOTAL:	14,000.00	16,540.49
TOTAL COSTS (Add Subtotals):	50,000.00	34,833.36
TOTAL AMOUNT REQUESTED:		50,000
TOTAL AMOUNT SPENT:		49,525.29