

Budget Justification

- A. Major Research Instrumentation cost: The 3D printer, a Stratasys Objet500 Connex3, will cost \$296,076 (please see the attached official quote) including shipping.

The NSF MRI program requires 30% cost share of the total project cost, which equates to \$108,232.

- B. Personnel Cost Share: .15 FTE (15%) of senior research technician's effort will be needed to manage machine access, train users, load/unload print jobs, load and changing consumables, and daily/monthly/annual maintenance tasks, and post-processing of jobs in each of the proposed project's three years. The personnel costs over the three year budget constitute \$43,863 and 41.1% of the UI's cost share per Section C. A 3% cost of living adjustment was applied to the technician's salary for years 2 and 3. No other PI, Co-PIs, or student salaries are included in the proposed budget.

Salary: 3 years, senior technician, .15FTE × \$65,374	\$31,219
Fringe: 40.5% × \$31,219	\$12,644
F&A on salary and fringe @ 47.5%	\$20,835
<i>Total personnel cost share:</i>	<i>\$64,698</i>

- C. Cash Cost Shares:

Cash from Departments/Colleges:

(1) College of Agricultural and Life Sciences	\$5,000
(2) College of Engineering	\$27,717
(3) Mechanical Engineering Dept.	\$2,000
(4) Physics	\$2,000
(5) UI Vice President of Research	\$6,817
<i>Total cost share from departments/colleges</i>	<i>\$43,534</i>

UI Cost Share personnel & departmental total: \$108,232

Cost Share Summary

Item	Year 1		Year 2		Year 3		Total	
	NSF Request	Cost Sharing	NSF Request	Cost Sharing	NSF Request	Cost Sharing	NSF Request	Cost Sharing
1. Statasys Object500 Connex3 3D printer	\$252,542	\$64,466	\$ -	\$21,560	\$ -	\$22,206	\$252,542	\$108,232
Totals	\$252,542	\$64,466	\$ -	\$21,560	\$ -	\$22,206	\$252,542	\$108,232

D: Total Project costs:

MRI Equipment Cost	\$296,076
Personnel Costs	\$64,698
Total Project Costs	\$360,774
UI Cost Share (includes personnel costs)	-\$108,232
Amount requested from NSF	\$252,542

University of Idaho F&A policy: The University of Idaho facilities and administrative costs (F&A) are 47.5% in years one, two, and three. The base for applying the indirect cost rate is Modified Total Direct Costs (MTDC), which includes Senior Personnel, Fringe Benefits and associated UI F&A but excludes the Equipment purchase. These rates were negotiated with the US Department of Health and Human Services on June 27, 2017 and may be viewed here: <https://www.uidaho.edu/research/faculty/resources/f-and-a-rates>.