

Department	PI	Co-PI	Project Title	Sponsor	Amount Requested
Biology and Biotechnology	Pamela Weathers		Do Sugars Regulate Terpenoid Biosynthesis?	USDA	\$75,000
Biomedical Engineering	Karl Helmer		Tendon Water Movement in the Normal and Diabetic Rat	UMASS Medical School	\$64,347
Chemical Engineering	F. Ribeiro		Catalytic Growth of Single-Wall Carbon Nanotubes from Metal Particles	Dept. of Energy	\$420,202
	Ravindra Datta	Yi Hua Ma, David DiBiasio, Gretar Tryggvason, S. Matson	IGERT: Multidisciplinary Graduate Training Program in Fuel Cell Energy Systems	NSF	\$2,698,347
Chemistry & Biochemistry	John MacDonald	Grant McGimpsey	Design of Supramolecular Scaffolds for the Templated Assembly of Molecular Devices on Surfaces	Dept. of Energy	\$512,018
	Grant McGimpsey	John MacDonald	Design of Supramolecular Scaffolds for the Templated Assembly of Nanowires & Molecular Devices on Surfaces	ACS-PRF	\$120,000
	John MacDonald		Design of Porous Crystalline Solids Using Coordination Chemistry & Ionic Hydrogen Bonds	ACS	\$4,163
	Grant McGimpsey	John MacDonald	Design of Supramolecular Scaffolds for the Templated Assembly of Molecular Devices on Surfaces	DOD/NAVY	\$527,518
Civil & Environmental Engineering	Rahib Mallick		Determination of Structural Strength of Foamed Asphalt Pavement Layers	Maine DOT	\$28,549
	Jeannine Plummer		Development of an Urbanization Index for Surface Waters	UMASS Amherst	42,756
Computer Science	George Heineman		ITR/SY: Features, Components, and Legacy Systems	NSF	\$301,515
	Matthew Ward		Generalized Hypercylinders: A Method of Visualizing N-Dimensional Surfaces & Solids	NSF	\$236,707
Electrical & Computer Engineering	Edward Clancy		Estimating Joint Impedance from the Surface EMG	DHHS	\$139,769

Worcester Polytechnic Institute  
 Report of Proposals Submitted  
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(Updated to include H. Walker)

IGSD	Susan Vernon-Gerstenfeld		Survey & Analysis of Rural Tree Planting Done Under the Proyecto de Reforstacion Puertoriqueno	USDA	\$5,000
Mathematical Sciences	Homer Walker		Numerical Algorithms and Software for C-Safe	Univ. of Utah	\$145,000
Mechanical Engineering	Zhikun Hou		Collaborative Research on Innovative Health Monitoring System for FRP-Concrete Structures	NSF	\$157,316
	Gretar Tryggvason	Diran Apelian	Simulations of Microstructure Formation During Solidification	NSF	\$499,735
	Diran Apelian		Spacial & Temporal Multiscale Study of the Effects of Micro-Structures on the Fatigue Behavior of an Aluminum Casting	Univ. of Arizona	\$166,807
	Michael Demetriou	Nikolaos Kazantizis	Performance Enhancement & Robustness Improvement of Nonlinear Transport Process of Moving Actuators	NSF	\$520,408
	Mustapha Fofana		Nonlinear Stability Bifurcation in Machining Operations	NSF	\$267,958
	Yiming Rong		GOALI: Integrated & Computerized Setup Planning and Fixture Design	NSF	\$28,200
	Nikolaos Gatsonis	John Blandino	Experimental Investigation and Modeling of Pulsed Plasma Thruster Plumes	NASA	\$57,448
	Ryszard Pryputniewicz	Cosme Furlong	Development of a Reliable RF MEMS Contact Switch	DARPA	\$4,981,105
	Nikolaos Gatsonis		Investigation of Plasma Microjets for High-Speed Flow Control Applications	DOD/ARMY	\$128,600
	Isa Bar-On		A Multi-Process Cost Model for the Evaluation of Design and Production Alternatives of SOFCs	Dept. of Energy	\$449,569
<b>Total requested (25 proposals)</b>					<b>\$12,578,037</b>