

Worcester Polytechnic Institute  
Report of Proposals Submitted  
December 2006

Department	PI	Co-PI	Project Title	Sponsor	Amount Requested	Cost Sharing
Biology and Biotechnology	Pamela Weathers	Melissa Jean Towler	Catharanthus roseus: Effect of Elicitation on Productivity of Secondary Metabolites in Whole Plants Grown Hydroponically	TerraSphere Biotechnology	\$93,270.00	\$0.00
Chemical Engineering	Ilie Fishtik		Accurate Ab Initio Thermochemistry Via Isodesmic Reaction Schemes	American Chemical Society	\$90,000.00	\$26,402.00
	Ravindra Datta	Ilie Fishtik	Thermal and Electrochemical Activation of Catalytic Reactions in Reforming and Fuel Cells: Ab Initio Reaction Pathway Analysis and Catalyst Design	Department of Energy	\$1,209,017.00	\$0.00
	Jennifer Wilcox		Nanostructured Material Design for Mercury, Arsenic, and Selenium Capture	Environmental Protection Agency	\$10,000.00	\$0.00
Chemistry and Biochemistry	Kristin Wobbe	Pamela Weathers	ASU-WPI Research Agreement	Arkansas State University	\$17,443.00	\$8,966.00
Civil and Environmental Engineering	Tahar El-Korchi	Joseph Petrucelli, Rajib Mallick	NCHRP20-71: Effective Experimental Design and Data Analysis in Transportation Research	National Cooperative Highway Research Program	\$249,925.00	\$0.00
	Rajib Mallick	Joseph Petrucelli	Test Methods and Specification Criteria for Mineral Filler Used in HMA	Burrus, Cooley and Dennis, Inc.	\$53,723.00	\$0.00
Computer Science	Carolina Ruiz		III-CXT: Collaborative Research: Robust Multiscale Pattern Discovery in Human Sleep Data	National Science Foundation	\$266,509.00	\$0.00
	Elke Rundensteiner		III-COR: The Scalable Stream System S3	National Science Foundation	\$449,437.00	\$0.00
	Emmanuel Agu		HCC: Imperceptible Mesh Simplification on Heterogeneous Ubiquitous Displays	National Science Foundation	\$258,488.00	\$0.00

Worcester Polytechnic Institute  
Report of Proposals Submitted  
December 2006

	Michael Gennert	David Cyganski, Fred Looft, Gretar Tryggvason, Michael Demetriou	IISCD: Robotics Curriculum Collaboratory	National Science Foundation	\$449,991.00	\$0.00
	Murali Mani		III-COR: Updat4es in XML-Based Data Integration Systems	National Science Foundation	\$408,855.00	\$0.00
Electrical and Computer Eng'g.	Ximing Huang		Smart Cells: Dynamically Reconfigurable and Evolvable Microsystems Using Large Scale Embedded Microprocessors and Interconnections	Defense Advanced Research Projects Agency	\$150,000.00	\$0.00
Fire Protection Eng'g.	Jonathan Barnett		Improvements to the Fire Test Simulator and Conduct of Manikin Tests	Battelle	\$3,475.00	\$0.00
Mathematical Sciences	Balgobin Nandram		Robust Analyses of Nonresponse Data Using Propensity Scores and Density Estimation	National Science Foundation	\$573,110.00	\$0.00
Mechanical Engineering	Chrysanthe Demetry		Rigorous Research in Engineering Education Community of Practice Research Plan	Colorado School of Mines	\$2,000.00	\$895.00
	Yiming Rong		STTR Phase I: Heat Treatment Process Modeling and Simulation Tools	JYL Solutions	\$58,168.00	\$0.00
	David Olinger		Wind Power from Kites: Low-Cost, Sustainable Energy for Developing Nations	Environmental Protection Agency	\$9,995.00	\$0.00
Physics	Declan DePaor		Collaborative Research: Geological and Geophysical Data Analysis Using a Virtual Globe	National Science Foundation	\$50,665.00	\$0.00
	John Norbury		(Anne Adamczyk) Electromagnetic Nucleus-Nucleus Collision Cross Sections	NASA	\$30,000.00	\$18,846.00
<b>Total Requested (20 Proposals)</b>					<b>\$4,434,071.00</b>	<b>\$55,109.00</b>