


**Worcester Polytechnic Institute**  
**Report of Proposals Submitted**  
**June 2009**

Department	Principal Investigator	Co-PI	Project Title	Sponsor	Prime Sponsor (if Sub)	Program Type	Amount Requested	Cost Sharing	Voluntary Uncommitted CS	Proposal #
Biology and Biotechnology	Ryder, E.		The Role of MRL Adaptor Protein MIG-10 in Neuronal Migration in <i>C. elegans</i>	NIH		Research	228,293	0		<a href="#">9284</a>
	Weathers, P.		Innovative Approach to Enhance Low Cost Artemisinin Supplies to Treat Malaria	Oregon State University	Gates (Bill and Melinda) Foundation	Research	33,000	11,960		<a href="#">9266</a>
Subtotal: 2							261,293	11,960	0	
Biomedical Engineering	Gaudette, G.		Regenerating Myocardium through Myocyte Proliferation	NIH		Research	1,992,773	0	38,727	<a href="#">9244</a>
	Gaudette, G.	Dominko, T.	Cardiac Regeneration	NIH		Research	3,022,928	0		<a href="#">9265</a>
Subtotal: 2							5,015,701	0	38,727	
Chemical Engineering	Camesano, T.		Molecular Scale Characterization of the Mechanism of Action of Antimicrobial Peptides on Lipid Membranes Using Quartz Crystal Microbalance with Dissipation	U.S. Natick Soldier Center	Army	Research	192,916	0	28,145	<a href="#">9267</a>
Subtotal: 1							192,916	0	28,145	
Civil and Environmental Engineering	Mallick, R.		Determination of Feasibility of Harvesting Heat Energy from Pavements in Mexico	Ingenieria Mexicana de Sistemas		Research	794,614	0	57,392	<a href="#">9282</a>
	Plummer, J.		Enhancing the Value of Molecular Methods to the Water Industry: An <i>E. coli</i> Case Study	University of Wisconsin-Madison	Water Research Foundation	Research	119,690	22,287		<a href="#">9269</a>
	Tao, M.	Crusberg, T., Camesano, T., Mallick, R.	Bio-Stabilization in Pavement Engineering	NSF		Research	394,496	0	45,648	<a href="#">9274</a>
Subtotal: 3							1,308,800	22,287	103,040	
Computer Science	Baker, R.		PLSC Projects in Affect Detection and Closing the Loop on Gaming the System	Carnegie Mellon University	NSF	Research	239,940	0		<a href="#">9271</a>
	Baker, R.		Promoting Robust Understanding of Genetics with a Cognitive Tutor that Integrates Conceptual Learning with Problem Solving	Carnegie Mellon University	DOEd	Research	265,957	0		<a href="#">9277</a>
	Gennert, M.	Hoffman, A., Sullivan, J.	Patient Motion Detection and Compensation in SPECT	University of Massachusetts Worcester	NIH	Research	491,358	0		<a href="#">09090cr1</a>
	Heffernan, N.	Baker, R., Gobert, J., Beck, J.	Postdoctoral Research Training WPI's Learning Sciences and Technologies Center	DOEd	Institute for Educational Sciences	Education/ Training	565,920	25,056		<a href="#">9279</a>
	Heffernan, N.		Giving Teachers What They Need: How a Data Rich and Technology Infused Classroom Can Revolutionize Teaching	DOEd	Institute for Educational Sciences	Research	1,487,990	0		<a href="#">9280</a>

**Worcester Polytechnic Institute  
Report of Proposals Submitted  
June 2009**

Subtotal: 5							3,051,165	25,056	0	
Electrical and Computer Eng'g.	Michalson, W.	Padir, T., Demetry, C., Looft, F., Tryggvason, G.	CCLI: A National Model Robotics Capstone	NSF		Research	199,052	0	18,764	<a href="#">9268</a>
	Wyglinski, A.		BLISS: A Blind Spectrum Separation Approach for Jamming-Resistant Communications	ONR		Research	93,219	0	14,833	<a href="#">9275</a>
Subtotal: 2							292,271	0	33,597	
Management	Gerstenfeld, A..	Vernon-Gerstenfeld, S.	Njenga Karume University Project	Njenga Karume University		Other	59,991	0		<a href="#">9276</a>
Subtotal: 1							59,991	0	0	
Mathematical Sciences	Mitrea, I.	Vernescu, B., Wobbe, K.	New GK-12; Mathematics Education Through Focused Learning Communities: Girls and Mathematics, Competitive Training, and Problem-Solving Across K-12 Levels	NSF		Research	2,595,809	0	17,863	<a href="#">9283</a>
Subtotal: 1							2,595,809	0	17,863	
Mechanical Engineering	Blandino, J.		Characterization of an Electrospray Scalpel	Busek, Co.	NIH	Research	151,057	0	18,302	<a href="#">9272</a>
	Furlong-Vazquez, C.		Computer-Based Holography and Middle Ear Function	Massachusetts Eye and Ear Infirmary	NIH	Research	710,357	0		<a href="#">9281</a>
	Hussein, I.	Gatsonis, N., Olinger, D., Demetriou, M.	CCLI: Integration of Theory and Practice in a System Dynamics and Control Curriculum	NSF		Research	196,122	0		<a href="#">9273</a>
	Van De Ven, J.		Parallel Hydraulic Hybrid Vehicle System Modeling	Entergem Ventures, LLC		Research	9,280	0		<a href="#">9270</a>
Subtotal: 4							1,066,816	0	18,302	
Physics	Ram-Moham, R.		Design of Quantum Cascade Lasers	Massachusetts Institute of Technology	DARPA	Education/ Training	54,827	0	9,920	<a href="#">08251cr1</a>
Subtotal: 1							54,827	0	9,920	
 <b>Total: 22</b>							<b>13,899,589</b>	<b>59,303</b>	<b>249,594</b>	