

**Worcester Polytechnic Institute
Report of Proposals Submitted
November 2008**

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	Dilorio, A.		Pichia Protease Fermentations	Blue Sky Biotech		Other	5,600	0		9115
	Weathers, P.		Nutrient Mist Bioreactor for Increased Efficiency in Commercial Micropropagation	PhytoTechnology Laboratories, LLC	NSF	Research	10,802	0		9119
Subtotal: 2	Count: 2						16,402	0	0	
Chemical Engineering	Dixon, A.		Connecting Catalytic Chemistry to External Particle Conditions via CFD: Supplement for Underrepresented Minority Research (SUMR)	American Chemical Society		Education/ Training	5,000	0		05096s2
Subtotal: 1							5,000	0	0	
Chemistry and Biochemistry	Connors, R.		Light-Activated Decontaminating Surfaces (LADS) for Individual and Collective Protection	Ventana Research Corporation	Air Force	Research	51,565	0	461	08022c1
	Yu, W.		Nanomaterials: Synthesis and Surface Chemistry	Sloan (Alfred P.) Foundation		Research	50,000	14,303		9117
	Yu, W.		Magnetically Recyclable Lipases for Biodiesel	American Chemical Society		Research	100,000	32,129		9121
	Yu, W.		Functionality-controllable Nanoparticles for Assembly	Beckman (Arnold and Mable) Foundation		Research	300,000	43,040		9116
Subtotal: 4						501,565	89,472	461		
Civil and Environmental Engineering	Mathisen, P.	LePage, S.	Green Roof Water Quality Assessment	University of Massachusetts Amherst	U.S. Geological Survey/Department of the Interior	Education/ Training	4,900	0		9109
	Tao, M.		Update LA DOTD Policy on Pile Driving Vibration Management	Louisiana Transportation Research Center		Research	199,934	4,968		9125
Subtotal: 2						204,834	4,968	0		
Computer Science	Dougherty, D.	Fisler, K.	SHF: Small: Alchemy: Transmuting Alloy Specifications into Programs	Brown University	NSF	Research	135,447	0		9122
	Gennert, M.		Mapping in Complex Urban Terrains	Textron, Inc.	RTC	Research	277,738	0	35,974	9123
	Gennert, M.	Michalson, W.	Mapping in Complex Urban Terrains	Autonomous Exploration, Inc.	RTC	Research	221,748	0	17,987	9124
Subtotal: 3						634,933	0	53,961		
Diversity & Women's Programs	Bradford, N.		ExxonMobil Bernard Harris Summer Science Camp 2009	Babbage (Charles) Institute	The Bernard Harris Foundation	Education/ Training	79,911	16,426		9110
Subtotal: 1						79,911	16,426	0		
Electrical and Computer Eng'g.	Duckworth, J.	Cyganski, D.	Last Mile Tracking of Tag Inside Building Phase 1 - Research Study and Investigation	Johns Hopkins University	Air Force	Research	40,576	0		9118
	Duckworth, J.	Cyganski, D.	Micro-Beacon Tracking of Autonomous Systems	Honeywell Aerospace	Army	Research	451,381	0		09037s1
	Michalson, W.		Autonomous Mobile Relays for NLOS Tele-operations	Textron, Inc.	RTC	Research	413,181	0		9120
Subtotal: 3						905,138	0	0		
Mathematical Sciences	Dai, S.		Domain Coarsening and Interface Evolution by Mean Curvature Type Flows	NSF		Research	76,513	0		9112
	Martin, W.		Structure and Applications of Cosmological Association Schemes	National Security Agency		Research	67,959	0		9106
	Volkov, D.		Reconstruction of Faults from Surface Displacements	NSF		Research	73,301	0		07086s1
Subtotal: 3						217,773	0	0		

**Worcester Polytechnic Institute
Report of Proposals Submitted
November 2008**

Mechanical Engineering	Liang, J.	Rong, Y.	Materials World Network: SnO2 Nanomaterials for Dye-Sensitized Solar Cells	NSF		Research	313,522	0	26,250	9113
	Rong, Y.		Computer-aided Modular Fixture Design for Welding	Caterpillar Technical Center		Research	70,000	8,919		07174s1
Subtotal: 2							383,522	8,919	26,250	
Physics	Garcia, R.	Iannacchione, G.	Experimental Study of Disorder in Quasi- 2D Biomemim LC Films	NSF		Research	235,061	0	24,556	9108
	Iannacchione, G.		Study of Solvent Diluted Liquid Crystal Phase Transitions	NSF		Research	239,360	0	27,660	9107
	Koehler, S.		Mechancial Properties of Common and Particle-Stabilized Aqueous Foams	Ben Gurion University of the Negev		Research	114,970	0		9111
	Quimby, R.		Material World Network: Development of Efficient Bismuth Doped Glasses for Boradband Light Sources and Fiber Lasers	NSF		Research	234,214	0	37,324	9114
Subtotal: 4							823,605	0	89,540	
Student Development and Counseling	Morse, C.		Worcester Polytechnic Institute Campus Suicide Prevention Grant	DHHS		Education/ Training	300,000	300,000	0	9126
Subtotal: 1							300,000	300,000	0	
Total: 26							4,072,683	419,785	170,212	

**Worcester Polytechnic Institute
Proposals Submitted by Department (FY 2008)**

Date: **November 2008**

Fiscal Year: **2007-2008**

	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Cumulative
Biology and Biotechnology	1		3	2	2								8
	33,272		446,967	889,027	66,907								1,436,173
Biomedical Engineering	2	1	1	2	2								8
	885,949	16,518	296,274	411,660	583,409								2,193,810
Bioengineering Institute		1	1	1	1								4
		81,944	149,971	711,868	800,350								1,744,133
Civil and Envir Engr			3	2	2								7
			443,391	236,275	348,125								1,027,791
Chemistry and Biochemistry	1	1											2
	1,156,495	60,005											1,216,500
Chemical Engineering	4			2	3								9
	1,369,614			1,507,787	315,890								3,193,291
Computer Science	4	1	2	1	4								12
	2,921,249	98,247	491,945	5,708	1,943,701								5,460,850
Electrical and Computer Engr	2	1	2	1									6
	854,359	44,912	109,127	414,697									1,423,095
Fire Protection Engineering	1	1	1	1									4
	479,095	599,640	19,867	179,467									1,278,069
Humanities and Arts													0
													0
Interdisciplinary and Global		2											2
		166,573											166,573
Mathematical Science	2		1	2	2								7
	1,476,903		62,712	957,434	676,245								3,173,294
Mechanical Engineering	7	1	6	7	1								22
	2,489,649	73,643	1,032,447	2,660,889	13,050								6,269,678
Management			1	2									3
			69,983	444,991									514,974
Social Science & Policy Studies			1										1
			50,912										50,912
Physics		1		2	3								6
		89,998		560,764	689,084								1,339,846
Other				1									1
				14,000									14,000
SUBTOTALS	24	10	22	26	20	0	0	0	0	0	0	0	102
	\$11,666,585	\$1,231,480	\$3,173,596	\$8,994,567	\$5,436,761	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$30,502,989
Add: Earmarks													0
													0
TOTALS	24	10	22	26	20	0	0	0	0	0	0	0	102
	\$11,666,585	\$1,231,480	\$3,173,596	\$8,994,567	\$5,436,761	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$30,502,989

12/05/08 kr

12/10/2008

**Worcester Polytechnic Institute
Proposals Submitted by Department (FY 2009)**

Date: **November 2008**

Fiscal Year: **2008-2009**

	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Cumulative
Biology and Biotechnology	4	4		3	2								13
	3,962,154	1,472,774		5,821,862	16,402								11,273,192
Biomedical Engineering	2		2	1									5
	579,137		420,394	215,960									1,215,491
Bioengineering Institute		1		2									3
		150,000		894,588									1,044,588
Civil and Envir Engr	1		2	3	2								8
	139,951		386,053	698,446	204,834								1,429,284
Chemistry and Biochemistry	1		1	1	4								7
	786,119		264,205	100,000	501,565								1,651,889
Chemical Engineering			1	1	1								3
			6,114	19,007,473	5,000								19,018,587
Computer Science	2	2	2	4	3								13
	637,144	659,904	103,394	5,564,501	634,933								7,599,876
Electrical and Computer Engr	5	3	5	4	3								20
	1,773,802	415,718	1,100,678	862,504	905,138								5,057,840
Fire Protection Engineering	2	1	4										7
	515,135	313,261	584,811										1,413,207
Humanities and Arts	1	1		1									3
	417,540	221,355		215,333									854,228
Interdisciplinary and Global	1	3											4
	6,500	376,678											383,178
Mathematical Science			1	4	3								8
			265,000	2,744,300	217,773								3,227,073
Mechanical Engineering		6	15	7	2								30
		3,087,303	2,470,816	2,278,277	383,522								8,219,918
Management													0
													0
Social Science & Policy Studies		2											2
		252,848											252,848
Physics	1	1	1		4								7
	275,628	285,366	299,950		823,605								1,684,549
Other	1		2		2								5
	9,109		103,852		379,911								492,872
SUBTOTALS	21	24	36	31	26	0	0	0	0	0	0	0	138
	\$9,102,219	\$7,235,207	\$6,005,267	\$38,403,244	\$4,072,683	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$64,818,620
Add: Earmarks													0
													0
TOTALS	21	24	36	31	26	0	0	0	0	0	0	0	138
	\$9,102,219	\$7,235,207	\$6,005,267	\$38,403,244	\$4,072,683	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$64,818,620

12/05/08 kr

12/10/2008

Worcester Polytechnic Institute
Proposals Submitted by Department (12 Month Report Through November 2008)

Date: **November 2008**

Fiscal Year: **2008-2009**

12/05/08 kr

	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Cumulative
Biology and Biotechnology		5	2	3	1	1	4	4	4		3	2	29
		1,154,895	302,520	267,789	30,029	640,952	944,176	3,962,154	1,472,774		5,821,862	16,402	14,613,553
Biomedical Engineering		3	1	1	3		6	2		2	1		19
		530,527	2,000	235,800	241,399		864,223	579,137		420,394	215,960		3,089,440
Bioengineering Institute				1					1		2		4
				25,000					150,000		894,588		1,069,588
Civil and Envir Engr	1		5	1	2	3	1	1		2	3	2	21
	74,916		943,450	243,132	365,809	216,337	26,953	139,951		386,053	698,446	204,834	3,299,881
Chemistry and Biochemistry		1				2	3	1		1	1	4	13
		90,000				846,754	2,206,455	786,119		264,205	100,000	501,565	4,795,098
Chemical Engineering			6	1		3	2			1	1	1	15
			1,503,718	33,514		453,359	479,532			6,114	19,007,473	5,000	21,488,710
Computer Science	8	6		5	1	4	3	2	2	2	4	3	40
	3,551,023	5,648,628		12,761,540	1,499,850	1,060,535	1,419,176	637,144	659,904	103,394	5,564,501	634,933	33,540,628
Electrical and Computer Engr	1	1	1	9		2		5	3	5	4	3	34
	328,714	42,936	375,805	2,259,278		115,229		1,773,802	415,718	1,100,678	862,504	905,138	8,179,802
Fire Protection Engineering			2	1		1		2	1	4			11
			146,386	47,822		1,533,121		515,135	313,261	584,811			3,140,536
Humanities and Arts								1	1		1		3
								417,540	221,355		215,333		854,228
Interdisciplinary and Global						1		1	3				5
						149,830		6,500	376,678				533,008
Mathematical Science	1	4	2		1	1	3			1	4	3	20
	296,715	975,421	1,076,325		599,399	759,434	156,116			265,000	2,744,300	217,773	7,090,483
Mechanical Engineering	1	5	4	7	3	6	8		6	15	7	2	64
	334,152	1,089,511	1,062,162	772,407	2,531,471	1,594,635	1,347,305		3,087,303	2,470,816	2,278,277	383,522	16,951,561
Management		1	1			1	1						4
		497,035	749,985			50,000	40,502						1,337,522
Social Science & Policy Studies									2				2
									252,848				252,848
Physics	1	1	4	1	1		2	1	1	1		4	17
	512,179	233,194	646,050	31,168	11,250		119,870	275,628	285,366	299,950		823,605	3,238,260
Other				1	1			1		2		2	7
				30,000	10,000			9,109		103,852		379,911	532,872
SUBTOTALS	13	27	28	31	13	25	33	21	24	36	31	26	308
	\$5,097,699	\$10,262,147	\$6,808,401	\$16,707,450	\$5,289,207	\$7,420,186	\$7,604,308	\$9,102,219	\$7,235,207	\$6,005,267	\$38,403,244	\$4,072,683	\$124,008,018
Add: Earmarks			2										2
			1,708,000										1,708,000
TOTALS	13	27	30	31	13	25	33	21	24	36	31	26	310
	\$5,097,699	\$10,262,147	\$8,516,401	\$16,707,450	\$5,289,207	\$7,420,186	\$7,604,308	\$9,102,219	\$7,235,207	\$6,005,267	\$38,403,244	\$4,072,683	\$125,716,018

Worcester Polytechnic Institute
Report of Awards Received
November 2008

Department	Principal Investigator	Co-PI	Project Title	Sponsor	Prime Sponsor (if Sub)	Action Type	Amount Awarded	Cost Sharing	Voluntary Uncommitted CS	Program Type	Proposal #	
Biomedical Engineering	Billiar, K.		Mechanical Regulation of Valvular Interstitial Cell Activation	American Heart Association		Con't.	65,000	44,242		Research	5090	
	Gaudette, G.	Billiar, K.	Myocardial Regeneration in Surgical Ventricular Restoration	American Heart Association		Con't.	65,000	49,874		Research	7002	
Subtotal: 2							130,000	94,116	0			
Electrical and Computer Eng'g.	Duckworth, J.	Cyganski, D.	Micro-Beacon Tracking of Autonomous Systems	Honeywell Aerospace	Army	New	264,296	0		Research	09037s1	
	Wyglinski, A.		Software-Defined Radio Interface Employing S-Functions	The Mathworks, Inc.		New	47,400	0	7,794	Research	9044	
Subtotal: 2							311,696	0	7,794			
Mechanical Engineering	Van De Ven, J.		Hydraulic Dynamometer	National Fluid Power Association		New	4,642	0		Education / Training	9051	
Subtotal: 1							4,642	0	0			
Diversity & Womens' Programs	Bradford, N.	Schachterle, L.	Northeast LSAMP Phase II	University of Massachusetts Amherst	NSF	Con't.	66,000	71,986		Education / Training	7077	
Subtotal: 1							66,000	71,986	0			
Total: 6							512,338	166,102	7,794			6

**Worcester Polytechnic Institute
Awards Received by Department (FY 2008)**

Date: **November 2008**

Fiscal Year: **2007-2008**

	Jul-07	Aug-07	Sep-07	Oct-07	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Cumulative
Biology and Biotechnology													0
													0
Biomedical Engineering		2											2
		223,880											223,880
Bioengineering Institute													0
													0
Civil and Envir Engr		1	1										2
		61,960	10,125										72,085
Chemistry and Biochemistry		1											1
		60,005											60,005
Chemical Engineering	2	1											3
	284,900	380,048											664,948
Computer Science	2	1	1	2	1								7
	572,896	13,500	19,500	176,863	95,492								878,251
Electrical and Computer Engr	2	3	1	2									8
	220,926	1,275,169	79,127	51,000									1,626,222
Fire Protection Engineering				1									1
				282,517									282,517
Humanities and Arts													0
													0
Interdisciplinary and Global	1	1											2
	60,733	6,000											66,733
Mathematical Science		2		1									3
		155,204		37,321									192,525
Mechanical Engineering	3	1	4	1	1								10
	183,071	60,000	298,900	107,000	15,000								663,971
Management													0
													0
Social Science & Policy Studies		1											1
		675,888											675,888
Physics		2			1								3
		210,000			30,001								240,001
Other	1		4	1									6
	66,212		842,525	14,000									922,737
SUBTOTALS	11	16	11	8	3	0	0	0	0	0	0	0	49
	\$1,388,738	\$3,121,654	\$1,250,177	\$668,701	\$140,493	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,569,763
Add: Earmarks			1										1
			839,000										\$839,000
TOTALS	11	16	12	8	3	0	0	0	0	0	0	0	50
	\$1,388,738	\$3,121,654	\$2,089,177	\$668,701	\$140,493	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,408,763

**Worcester Polytechnic Institute
Awards Received by Department (FY 2009)**

Date: **November 2008**

Fiscal Year: **2008-2009**

	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Cumulative
Biology and Biotechnology	1 293,745	2 21,269	1 12,289										4 327,303
Biomedical Engineering	2 164,980	1 2,000		1 16,488	2 130,000								6 313,468
Bioengineering Institute		1 150,000											1 150,000
Civil and Envir Engr				1 42,000									1 42,000
Chemistry and Biochemistry	1 169,933												1 169,933
Chemical Engineering	2 278,341		1 128,000	1 6,114									4 412,455
Computer Science	3 777,475	4 514,681											7 1,292,156
Electrical and Computer Engr		3 343,814	4 648,209	4 279,616	2 311,696								13 1,583,335
Fire Protection Engineering	3 247,099												3 247,099
Humanities and Arts													0 0
Interdisciplinary and Global		2 42,475											2 42,475
Mathematical Science		2 361,037											2 361,037
Mechanical Engineering	3 132,367		4 199,600	3 83,400	1 4,642								11 420,009
Management		1 7,000	1 749,985	1 42,592									3 799,577
Social Science & Policy Studies													0 0
Physics		1 233,194	1 53,594										2 286,788
Other			1 9,000	2 124,852	1 66,000								4 199,852
SUBTOTALS	15 \$2,063,940	17 \$1,675,470	13 \$1,800,677	13 \$595,062	6 \$512,338	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	64 \$6,647,487
Add: Earmarks													0 \$0
TOTALS	15 \$2,063,940	17 \$1,675,470	13 \$1,800,677	13 \$595,062	6 \$512,338	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	0 \$0	64 \$6,647,487

Worcester Polytechnic Institute
Awards Received by Department (12 Month Report Through November 2008)

Date: **November 2008**

Fiscal Year: **2008-2009**

	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	11/01/2008	Cumulative
Biology and Biotechnology		1	1	1	2	1	1	1	2	1			11
		212,112	74,237	295,385	60,000	122,231	6,125	293,745	21,289	12,289			1,097,413
Biomedical Engineering	1	1	1				2	2	1		1	2	11
	59,299	2,191	24,527				130,000	164,980	2,000		16,488	130,000	529,485
Bioengineering Institute									1				1
									150,000				150,000
Civil and Envir Engr					1	1					1		3
					88,372	150,000					42,000		280,372
Chemistry and Biochemistry			1		1			1					3
			55,646		180,000			169,933					405,579
Chemical Engineering	1	3	1	1		2	1	2		1	1		13
	10,000	256,615	49,936	5,000		475,001	33,514	278,341		128,000	6,114		1,242,521
Computer Science		1	1	2	1	1	3	3	4				16
		15,000	25,000	413,731	58,635	122,785	380,437	777,475	514,681				2,307,744
Electrical and Computer Engr		3	1		1	2	3		3	4	4	2	23
		223,889	42,936		11,980	112,000	346,479		343,814	648,209	279,616	311,696	2,320,619
Fire Protection Engineering			1	1		1		3					6
			19,867	14,000		7,515		247,099					288,481
Humanities and Arts													0
													0
Interdisciplinary and Global									2				2
									42,475				42,475
Mathematical Science			1	2	1				2				6
			30,109	450,528	62,712				361,037				904,386
Mechanical Engineering	4	3	1	1		2	3	3		4	3	1	25
	169,482	173,051	34,000	70,000		10,000	108,844	132,367		199,600	83,400	4,642	985,386
Management							1		1	1	1		4
							87,000		7,000	749,985	42,592		886,577
Social Science & Policy Studies													0
													0
Physics		1	1	1		1	2		1	1			8
		29,665	59,997	31,168		7,615	35,625		233,194	53,594			450,858
Other					1		1			1	2	1	6
					1,000		69,993			9,000	124,852	66,000	270,845
SUBTOTALS	6	13	10	9	8	11	17	15	17	13	13	6	138
	\$238,781	\$912,523	\$416,255	\$1,279,812	\$462,699	\$1,007,147	\$1,198,017	\$2,063,940	\$1,675,490	\$1,800,677	\$595,062	\$512,338	\$12,162,741
Add: Earmarks					1		1						2
					\$848,000		\$860,000						\$1,708,000
TOTALS	6	13	10	9	9	11	18	15	17	13	13	6	140
	\$238,781	\$912,523	\$416,255	\$1,279,812	\$1,310,699	\$1,007,147	\$2,058,017	\$2,063,940	\$1,675,490	\$1,800,677	\$595,062	\$512,338	\$13,870,741