

Report of Proposals

For the Month of September 2000

<u>Department</u>	<u>Investigator</u>	<u>Sponsor</u>	<u>Title</u>	<u>Amount</u>
BIOLOGY & BIOTECHNOLOGY	Adams, D.S.	DHHS	A Novel Transcription Factor Activated by PGG-Glucan	\$125,294
BIOMEDICAL ENGINEERING	Helmer, K.G.	DHHS	Water Mobility in Tendon	\$129,037
	Kohles, S.S.	Whitaker Foundation	Anisotropic Poroelasticity of Biologic and Engineered Bone	\$240,000
	Shonat, R.D.	Whitaker Foundation	Three Dimensional Imaging of Oxygen Tension in the Diabetic Mouse Retina	\$239,896
CIVIL & ENVIRONMENTAL ENGINEERING	Mallick, R.B.	Perdue University	Relationships of HMA In-place Air Voids, Lift Thickness, and Permeability	\$111,773
	Mallick, R.B.	NSF	Development of a Non-destructive Testing System for Evaluation of Foundation Soil	\$177,843
CHEMISTRY & BIOCHEMISTRY	Arguello, J.	American Chemical Society	Selectivity Determinants in Heavy Metal Transport Atpases	\$90,000
CHEMICAL ENGINEERING	Camesano, T.A.	American Chemical Society	Bacterial Surface Polymers Responsible for Bacterial Adhesion	\$25,000
	Datta, R. *MA, Y.H.	Englehard Corp.	Water-gas Shift Reaction in a PD Membrane Reactor	\$187,585
	McNamara, K.M.	American Chemical Society	Nitrogen in Diamond: An Isotopic Labeling Study	\$60,000
	Wyslouzil, B.E.	NSF	Nanodroplet Aerosols: Formation and Structure	\$477,734

COMPUTER SCIENCE	Cruz, I.F.	NSF	Visual Query Languages for Database Systems	\$6,000
	Fisler, K.	Rice University	Computing Education for Every Student in Secondary Schools	\$118,402
ELECTRICAL & COMPUTER ENGINEERING	Pedersen, P.C. *Ludwig, R. *Makarov, S.	NSF	Development of Optimized, Adaptive Ultrasound-based Sensing System	\$436,338
	Paar, C.	NSF	Efficient Public-key Algorithms for Embedded Systems	\$403,500
MATHEMATICAL SCIENCES	Martin, W.J.	NSF	Combinatorics: Structure and Applications of Association Schemes	\$263,645
	Nandram, B.	DHHS	Optimizing Aggregation Parameters for Geographic Analysis	\$29,985
	Vernescu, B.M. *Heinricher, A.C.	NSF	Reu Site: Research Experience for Undergraduates in Industrial Mathematics and Statistics	\$184,639
MECHANICAL ENGINEERING	Demetriou, M.A.	NSF	Activation Policy of Controllers in Flexible Structures	\$136,352
	Hou, Z	Factory Mutual Research Corp.	A Feasibility Study on Using Advanced Technology to Improve Performance of Roof Systems in Severely Windy Environment	\$76,500
	Hou, Z.	North Carolina State Univ.	Development and Validation of Novel Adaptive Shape Memory Alloy (SMA) Devices for Seismic Mitigation	\$106,078
	Rong, Y.	NSF	Goali: Integrated and Computerized Setup Planning and Fixture Design	\$199,491
			TOTAL	\$3,950,386

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