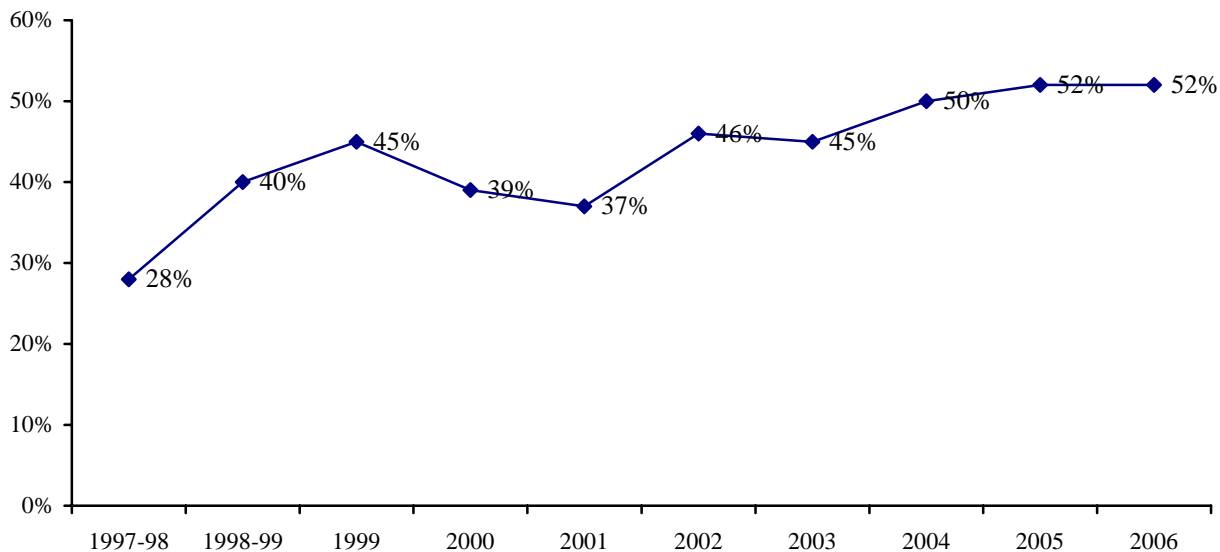


College
of Physical
&
Mathematical
Sciences

Summary of Sponsored Research (Grants & Contracts)

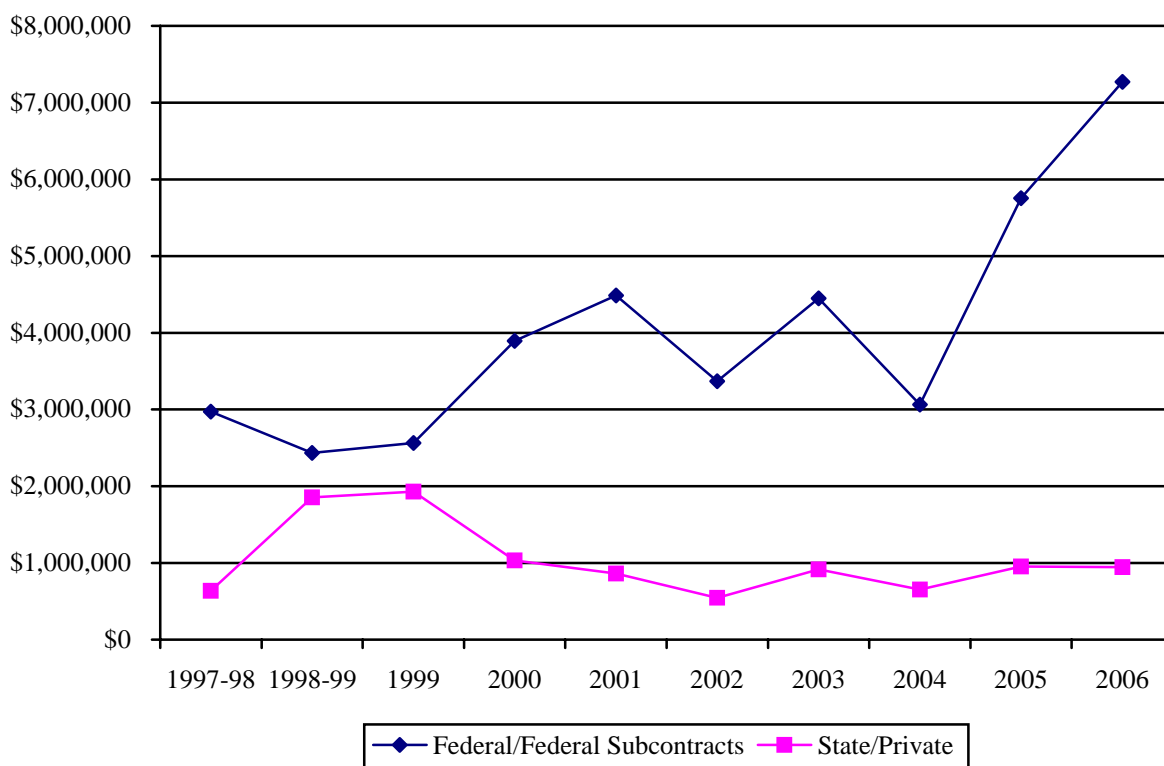
Department	# of Faculty	# of Faculty Submitting	# of Proposals Submitted	# of Awards	Dollars Awarded
Chemistry & Biochemistry	37	29	65	55	\$3,519,757
Computer Science	24	16	14	11	\$938,682
Geology	15	10	12	5	\$55,231
Mathematics	30	10	6	12	\$1,866,286
Mathematics Education	11	0	0	0	\$0
Physics & Astronomy	33	17	21	25	\$1,564,728
Statistics	13	2	1	3	\$273,199
TOTALS	163	84	119	111	\$8,217,883

Proposal Submission Activity



External Research Funding (All Sources)

Year	Grants/Contracts		Total
	Federal/Federal Subcontracts	State/Private	
1997-98	\$2,973,964	\$638,996	\$3,612,960
1998-99	\$2,436,351	\$1,853,248	\$4,316,599
1999	\$2,561,770	\$1,928,464	\$4,490,234
2000	\$3,892,327	\$1,032,159	\$4,924,486
2001	\$4,485,814	\$865,015	\$5,350,829
2002	\$3,368,967	\$547,133	\$3,916,100
2003	\$4,447,192	\$915,462	\$5,362,654
2004	\$3,065,799	\$653,585	\$3,719,384
2005	\$5,752,653	\$956,651	\$6,709,304
2006	\$7,272,491	\$945,392	\$8,217,883



Physical & Mathematical Sciences 2006 Awards

<u>PI</u>	<u>Co-PI</u>	<u>Sponsor</u>	<u>Title</u>	<u>Start Date</u>	<u>End Date</u>	<u>Type</u>	<u>Amount</u>
<i>Chemistry and Biochemistry</i>							
Asplund, Matthew	w/ Linford, Matt	Laserarray Technologies	Laser Modification and Functionalization of Substrates	5/1/2006	4/30/2007	4	\$8,550
Boerio-Goates, Julie	w/ Woodfield, Brian	Dept of Energy	Energetics of Nanomaterials	5/15/2006	5/14/2007	1	\$82,500
Boerio-Goates, Julie		Argonne Natl. Lab (DOE)	Measurement of Third Law Entropies of Copper	3/20/2006	8/31/2006	2	\$1,601
Burton, Greg		Johns Hopkins (NIH)	Tissue & Cell Reservoirs for HIV Tissue & Cell Reservoirs for HIV	1/1/2006	12/31/2006	2	\$85,701
Buskirk, Allen		NIH	Genetic Studies on Bacterial Translation	5/1/2006	4/30/2007	1	\$225,000
Castle, Steven		NIH	New Methods for the Synthesis of Unusual Peptides	4/1/2006	3/31/2007	1	\$219,713
Dearden, Dave		NSF	Supramolecular Characterization via Mass Spectrometry	8/1/2006	7/31/2007	1	\$130,000
Eatough, Delbert		EPRI	Air Pollution Conference	4/20/2006	12/31/2006	4	\$20,000
Eatough, Delbert		S. Calif. Edison	Semi-Continuous PM2.5 Mass & Compositional Data	12/5/2005	7/1/2006	4	\$26,500
Eatough, Delbert		Air Pollution Conf (various foundations)	Particle Air Pollution & Health Conference	4/20/2006	12/31/2006	4	\$7,500
Farnsworth, Paul	w/ Lee, Milton	NIH	Electromobility Focusing for Separation of Proteins	2/1/2006	1/31/07	1	\$69,991
Farnsworth, Paul		DOE	Ion Production and Transport in Atmospheric Pressure Ion	5/1/2003	10/31/2009	1	\$205,000
Graves, Steven	w/ Thulin, Craig	Univ of Utah (NIH)	Proteomics: A Novel Approach to Predicting Preeclampsia	4/1/2005	3/31/2006	2	\$25,459
Graves, Steven		Univ of Utah (NIH)	Proteomics: A Novel Approach to Predicting Preeclampsia	6/1/2005	5/31/2007	2	\$28,165
Hansen, Jaron C.		NSF	Water Vapor Dependence of the Reaction Kinetics of the Methylperoxyl Radical	10/1/2006	9/30/2009	1	\$249,519
Henderson, Douglas		LLNL	w/Hydroperoxyl and Itself Confinement Imposed on the Polymer by Filler Particles as a Tool to Tailor the Properties	9/19/2005	12/31/2007	2	\$7,500
Henderson, Douglas		LLNL	Confinement Imposed on the Polymer by Filler Particles as a Tool to Tailor the Properties	9/19/2005	12/31/2007	2	\$32,000
Izatt, Reed		Army RDECOM	Modeling and Thermodynamic Study of Aqueous Chemical Reactions	8/1/2006	12/31/2006	1	\$45,000
Lamb, John		Mission Support (HLSec)	Chromatographic Purification of LiOH	6/8/2006	6/1/2010	2	\$900
Lamb, John		Mission Support	Chromatographic Purification of LiOH	8/8/2006	8/7/2007	4	\$900
Lee, Milton		Palmar Tech	Chemical and Biological Agent Detector	5/8/2003	3/31/2007	1	\$30,000
Lee, Milton		Palmar Tech	Portable GC-MS System Development	5/1/2006	4/30/2007	2	\$18,220
Lee, Milton		Palmar Tech	High Throughput Chemical Analyzer	3/1/2004	3/31/2007	4	\$62,000
Lee, Milton		NIH	Electromobility Focusing for Separation of Proteins	2/1/2006	1/31/2007	1	\$69,992
Lee, Milton		US Army (Dugway)	Real-time Detector System Development and Validation	3/7/2006	6/6/2006	1	\$39,500
Lee, Milton		US Army (Dugway)	Real-time Detector System Development and Validation	3/7/2006	6/6/2006	1	\$51,500
Lee, Milton		Palmar Tech	Portable GC-MS System Development	5/1/2006	4/30/2007	2	\$73,500
Lee, Milton		Palmar Tech	High Throughput Chemical Analyzer	3/1/2004	1/31/2007	4	\$45,000
Lee, Milton		Palmar Tech	Development of Magnetically-Confining RF-only Ion Guide	1/1/2006	4/30/2007	4	\$20,000
Lee, Milton		Pfizer Global Biologics	Polymeric Ion-exchange Monolithic	12/5/2006	12/5/2009	4	\$157,625

Columns for Capillary							
Lee, Milton		US Synthetic	New Diamond Materials for Chromatography	1/1/2007	12/31/2007	4	\$60,000
Linford, Matt	w/ Harb, John	NSF	Exploratory Methods for Nanowire Fabrication	3/15/2005	2/28/2006	1	\$4,000
Linford, Matt		US Synthetic	Research Collaboration	12/15/2005	5/31/2006	4	\$8,000
Linford, Matt		US Synthetic	Research Collaboration	12/15/2005	5/31/2006	4	\$2,083
Linford, Matt		Sonic Innovations, Inc	Research Collaboration	8/14/2006	4/30/2007	4	\$11,250
Linford, Matt		Diamicron	Sample Analysis: ToF/Sims	1/12/2006	7/1/2006	4	\$2,875
Linford, Matt		Laserarray Technologies	Laser Modification and Functionalization of Substrates	5/1/2006	4/30/2007	4	\$8,550
Linford, Matt		Sonic Innovations, Inc	Research Collaboration	8/14/2006	12/31/2006	4	\$22,500
Linford, Matt	w/ Lee, Milton	US Synthetic	New Diamond Materials for Chromatography	1/1/2007	12/31/2007	4	\$60,000
Linford, Matt		US Synthetic	Research Collaboration	12/15/2005	5/31/2006	4	\$2,083
Linford, Matt		US Synthetic	Research Collaboration	9/3/2003	12/31/2006	4	\$2,084
Robins, Morris		Univ of Kansas (NIH)	AdoHcy Hydrolase	1/1/2006	1/31/2007	2	\$43,825
Savage, Paul		U of Chicago (NIH)	Influence of Glycolipid Structure	1/15/2003	12/31/2006	2	\$229,389
Savage, Paul		Ntl. Jewish Hospital (NIH)	ADVN	4/1/2005	3/30/2008	2	\$74,378
Savage, Paul		Scripps Institute	Using Lipids for Vaccination	8/1/2006	7/31/2007	2	\$96,975
Savage, Paul		BYU Tech Transfer		5/12/2004	Open	3	\$40,500
Savage, Paul		Innate Immune Inc	Developmnet of Improved antagonists for iNKT Cells	4/26/2006	4/25/2007	4	\$100,00
Thulin, Craig		Univ of Utah (NIH)	Proteomics: A Novel Approach to Predicting Preeclampsia	4/1/2005	3/31/2006	2	\$25,459
Thulin, Craig	w/Graves, Steven	Univ of Utah (NIH)	Proteomics: A Novel Approach to Predicting Preeclampsia	6/1/2005	5/31/2007	2	\$28,165
Willardson, Barry		NIH	Physiological Role of Phosducins in the Retina	5/1/2006	4/30/2007	1	\$219,713
Woodfield, Brian		Dept of Energy	Energetics of Nanomaterials	5/15/2006	5/14/2007	1	\$82,500
Woodfield, Brian	w/ Boerio-Goates, Julie	Argonne Natl. Lab (DOE)	Measurement of Third Law Entropies of Copper	3/20/2006	8/31/2006	2	\$1,600
Woolley, Adam	w/ Lee, Milton	NIH	Electromobility Focusing for Separation of Proteins	2/1/2006	1/31/2007	1	\$69,991
Woolley, Adam		NIH	Phase-Changing Sacrificiaal Layer Microfluidics	4/1/2006	1/31/2007	1	\$270,000
Computer Science							
Barrett, William		Adobe	Image Vectorization	4/28/2005	12/31/2010	4	\$60,000
Goodrich, Michael		NSF	REU Supplement - UAV-Enabled Wilderness Search & Rescue	11/1/2005	10/31/2008	1	\$4,000
Goodrich, Michael		Batelle	Augmented Virtuality	6/8/2005	6/30/2006	2	\$1,800
Goodrich, Michael	w/ McLain, Tim	Utah State COE	Unmanned Air Vehicle	7/1/2006	6/30/2007	3	\$27,731
Jones, Michael		JPL	Parallel Model Checking with SPIN	7/10/2006	8/31/2006	1	\$47,495
Maddox, Matthew		NSF	NSF Graduate Research Fellowship Award	8/1/2002	7/31/2007	1	\$40,500
Mercer, Eric	w/ Jones, Mike	JPL	Parallel Model Checking with SPIN	7/10/2006	8/31/2006	1	\$47,494
Morse, Bryan	w/Goodrich, Mike	NSF	REU Supplement - UAV-Enabled Wilderness Search & Rescue	11/1/2005	10/31/2008	1	\$4,000
Morse, Bryan		Adobe	Image Vectorization....	4/20/2005	12/31/2010	4	\$30,000
Seamons, Kent		NSF	ITR Automated Trust Negotiation in Open Systems	6/28/2006	8/31/2007	1	\$459,025
Seamons, Kent		UC Irvine	Flexible Access Control Systems for Urban Crisis Response	10/1/2003	9/30/2007	2	\$82,093
Warnick, Sean	w/ Humphreys, Jeff	NSF	CSUMS: IDeA Labs	9/15/2006	8/31/2009	1	\$175,044

Geology

Christiansen, Eric		NPS-Fossil Butte	Determine Source of Volcanic Ash...	8/27/2004	10/15/2006	1	\$10,000
Kowallis, Bart	w/ Christiansen, Eric	NPS-Fossil Butte	Determine Source of Volcanic Ash...	8/27/2004	10/15/2006	1	\$10,000
Kowallis, Bart		USGS-Dept of Interior	Geologic Mapping of Lake Mountain	5/1/2005	4/30/2006	1	\$10,549
McBride, John	w/Morris, Thomas	USGS	Interpretation of the Jurassic Entrada Sandstone....	1/1/2006	6/30/2006	3	\$12,015
Morris, Thomas		USGS	Interpretation of the Jurassic Entrada Sandstone....	1/1/2006	6/30/2006	3	\$12,016
Mathematics							
Dorff, Michael		NSF	REU Experiences in Math	4/1/2005	3/31/2007	1	\$52,722
Dorff, Michael		NSF	Research Experiences for Undergraduates in Math	4/1/2005	3/1/2006	1	\$52,722
Dorff, Michael		NSF	REU Experiences in Math	8/15/2006	3/31/2008	1	\$52,722
Dorff, Michael		NSF	Center for Mentoring Undergraduate Research in Mathematics	10/1/2006	9/30/2010	1	\$315,714
Doud, Darrin		NSA	Reducible Galois Representations and Arithmetic Cohomology	6/6/2005	6/5/2006	1	\$11,314
Halverson, Denise	w/Dorff, Michael	NSF	Center for Mentoring Undergraduate Research in Mathematics	10/1/2006	9/30/2010	1	\$315,714
Humpherys, Jeff		NSF	Stability of Traveling Waves	8/1/2006	7/31/2009	1	\$152,206
Humpherys, Jeff	w/Dorff, Michael	NSF	Center for Mentoring Undergraduate Research in Mathematics	10/1/2006	9/30/2010	1	\$315,713
Humpherys, Jeff		NSF	CSUMS: IDeA Labs	9/15/2006	8/31/2009	1	\$175,044
Jarvis, Tyler		NSF	Stringy Invariants, Orbicurves, and Topological Field Theory	9/1/2006	8/31/2009	1	\$91,204
Jarvis, Tyler	w/Dorff, Michael	NSF	Center for Mentoring Undergraduate Research in Mathematics	10/1/2006	9/30/2010	1	\$315,713
Li, Xian Jim		NSA	Topics Related To The Selberg Trace Formula....	1/27/2006	1/26/2007	1	\$15,498
Physics and Astronomy							
Bergeson, Scott		NSF	Nonequilibrium Dynamics of Ultracold Neutral Plasma	6/15/2006	5/31/2007	1	\$193,755
Davis, Robert		Cornell Univ (NSF)	Center for Nanoscale Systems	9/1/2001	8/31/2006	2	\$30,000
Davis, Robert	w/ Vanfleet, Richard	Moxtek	Very High Aspect Ratio Structures	11/14/2006	12/21/2006	4	\$2,500
Gee, Kent		STI Technologies (NASA)	Energy Based Acoustic Measurement Sensors	7/1/2006	9/30/2006	2	\$3,750
Gee, Kent		STI Technologies	Energy Based Acoustic Measurement Sensors	6/2/2006	4/30/2008	2	\$15,000
Hart, Gus		NSF	Materials World Network	8/1/2006	11/30/2006	1	\$93,000
Hart, Gus		NSF	Computer Based Discovery of Novel, Low Temperature....	6/19/2006	12/31/2006	1	\$27,146
Hintz, Eric	w/ Moody, Ward	NSF	Principle Instrument Updgrade at West Mtn Observatory	6/15/2006	5/31/2008	1	\$183,099
Joner, Michael	w/ Moody, Ward	NSF	Principle Instrument Updgrade at West Mtn Observatory	6/15/2006	5/31/2008	1	\$183,099
Leishman, Timothy	w/Sommerfeldt, Scott	NSF	Development of Acoustic Energy Concepts	6/23/2006	5/31/2007	1	\$30,838
Leishman, Timothy	w/ Gee, Kent	STI Technologies (NASA)	Energy Based Acoustic Measurement Sensors	7/1/2006	9/30/2006	2	\$3,750
Leishman, Timothy	w/ Gee, Kent	STI Technologies	Energy Based Acoustic Measurement Sensors	6/2/2006	4/30/2008	2	\$15,000
Leishman, Timothy	w/Sommerfeldt, Scott	Utah COE	Acoustics Research Center	7/1/2006	6/30/2007	3	\$8,333
Moody, Ward		NSF	Principle Instrument Updgrade at West Mtn Observatory	6/15/2006	5/31/2008	1	\$183,099
Peatross, Justin		NSF	Bright Laser High-Order Harmonic Generation	5/12/2006	6/30/2007	1	\$2,500
Sommerfeldt, Scott		NSF	Development of Acoustic Energy Concepts	6/23/2006	5/31/2007	1	\$30,838
Sommerfeldt, Scott	w/ Gee, Kent	STI Technologies	Energy Based Acoustic Measurement Sensors	7/1/2006	9/30/2006	2	\$3,750

Sommerfeldt, Scott	w/ Gee, Kent	STI Technologies	Energy Based Acoustic Measurement Sensors	6/2/2006	4/30/2008	2	\$15,000
Sommerfeldt, Scott		Utah State COE	Acoustics Research Center	7/1/2005	6/30/2006	3	\$8,334
Sommerfeldt, Scott		Caterpillar	Active Noise Control in Earth Moving Equipment...	1/1/2006	12/31/2006	4	\$99,863
Spencer, Ross	Farnsworth, Paul	DOE	Ion Production and Transport in Atmospheric Pressure Ion	5/1/2003	10/31/2009	1	\$205,000
Spencer, Ross	w/ Turley, Steven	NSF-REU/RET	Physics Research at BYU	5/1/2006	4/30/2007	1	\$111,037
Turley, Steven		NSF-REU/RET	Physics Research at BYU	5/1/2006	4/30/2007	1	\$111,038
Vanfleet, Richard		Moxtek	Very High Aspect Ratio Structures	11/14/2006	12/21/2006	4	\$2,500
Ware, Michael	w/Peatross, Justin	NSF	Bright Laser High-Order Harmonic Generation	5/12/2006	6/30/2007	1	\$2,500
<i>Statistics</i>							
Tolley, Dennis	w/ Humphreys, Jeff	NSF	CSUMS: IDeA Labs	9/15/2006	8/31/2009	1	\$175,044
Tolley, Dennis	w/ Lee, Milton	NIH	Electromobility Focusing for Separation of Proteins	2/1/2006	1/31/2007	1	\$69,991
Whiting, David	w/ Graves, Steven	Univ of Utah (NIH)	Proteomics: A Novel Approach to Predicting Preeclampsia	6/1/2005	5/31/2007	2	\$28,164

Type: 1=Federal; 2=Federal Subcontract; 3=State; 4=Private

Department Totals	
Chemistry & Biochemistry	\$3,519,757
Computer Science	\$938,682
Geology	\$55,231
Mathematics	\$1,866,286
Mathematics Education	\$0
Physics & Astronomy	\$1,564,728
Statistics	\$273,199
College Total:	\$8,217,883

Physical & Mathematical Sciences

Source Breakdown of Grants and Contracts

Sponsor	Number Awarded	Total Amount
Federal		
Army RDECOM	1	\$45,000
Dept of Energy	2	\$575,000
JPL	1	\$94,989
NIH	4	\$1,214,392
NPS-Fossil Butte	1	\$20,000
NSA	2	\$26,812
NSF	19	\$3,969,979
US Army (Dugway)	2	\$91,000
USGS-Dept of Interior	1	\$11,200
Total	33	\$6,270,447
Subcontracts		
Argonne Natl. Lab (DOE)	1	\$3,201
Batelle	1	\$1,800
Cornell Univ (NSF)	1	\$30,000
Johns Hopkins (NIH)	1	\$85,701
LLNL	2	\$39,500
Mission Support (HLSec)	2	\$1,800
Ntl. Jewish Hospital (NIH)	1	\$74,378
Palmar Tech	3	\$121,720
Scripps Institute	1	\$96,975
STI Technologies (NASA)	2	\$56,250
UC Irvine	1	\$82,093
Univ of Chicago (NIH)	1	\$229,389
Univ of Kansas (NIH)	1	\$43,825
Univ of Utah (NIH)	2	\$135,412
Total	20	\$1,002,044
State		
USGS	1	\$24,031
Utah State COE	2	\$44,398
Total	6	\$68,429

Physical & Mathematical Sciences

Source Breakdown of Grants and Contracts

<u>Sponsor</u>	<u>Number Awarded</u>	<u>Total Amount</u>
Private		
Adobe	2	\$90,000
Air Pollution Conf (various foundations)	1	\$7,500
BYU Tech Transfer	1	\$40,500
Caterpillar	1	\$99,863
Diamicron	1	\$2,875
EPRI	1	\$20,000
Innate Immune Inc	1	\$100,000
Laserarray Technologies	1	\$17,100
Moxtek	2	\$5,000
Palmar Technologies	3	\$127,000
Pfizer Global Biologics	1	\$157,625
S. Calif Edison	2	\$41,500
Sonic Innovations, Inc	2	\$33,750
US Synthetic Corp	4	\$134,250
Total	22	\$876,963

